The Aggregate Facility Standard

saskatchewan.ca/climate-change

Saskatchewan

Table of Contents

Part 1 - General

1. Introduction

1(1) This standard is adopted under *The Management and Reduction of Greenhouse Gases (Standards and Compliance) Regulations, 2023*.

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, 2023*, hold the same definition in this standard.

1(3) Any conflict or inconsistency in the provisions of this standard will be resolved by giving precedence in the following order: (1) the Act, (2) the regulations, (3) the standard, (4) any other document incorporated as part of the standard.

1(4) For greater certainty, any conflict or inconsistency in the provisions of this standard and the ISO 14064-3 or ISO 14065 standards will be resolved by giving precedence to this standard.

1(5) This standard applies to an industrial facility subject to the regulations that is considered an aggregate facility in accordance with Subsection 2(1).

1(6) For the purposes of Subsection 2(6) of the regulations and subject to Subsection 4(4) and Sections 9 and 10, the Minister may consider a unit or group of units within the boundary of an aggregate facility satisfying the condition in clause 1(6)(a) to be an electricity facility if, in 2022 or a subsequent year:

(a) one or more units at the aggregate facility has an electricity output ratio greater than 50 per cent, as determined in Section 6; and

(b) the sum of the regulated electricity emissions from the units satisfying the condition in clause 1(6)(a) is equal to or greater than 10,000 tonnes CO_2e.

unless the regulated emitter provides evidence satisfactory to the Minister that the unit or group of units was under construction between Jan. 1, 2022, and Dec. 31, 2022.

2. Definitions

2(1) In this standard:

"Accredited verification body" means a verification body that meets the following accreditation requirements:

(a) is accredited to ISO 14065 by the Standards Council of Canada, the American National Standards Institute or any other accreditation organization that is a member of the International Accreditation Forum;

(b) has a scope of accreditation that is sufficient to verify the information contained in a return or submission; and

(c) is not suspended by an accreditation organization that issued an accreditation.

"Act" means *The Management and Reduction of Greenhouse Gases Act*.

"Aggregate facility" means an industrial facility consisting of a collection of individual facilities that meet the requirements of Subsection 7(3).

"**Authorized signing officer"** means a person who has authority to accept legal responsibility on behalf of the regulated facility.

"Barrel of oil equivalent" or BOE means a unit of energy based on the approximate energy released by burning one barrel (158.9873 litres) of crude oil.

"Baseline emissions" means regulated emissions associated with the commercial production of a product or production class at an aggregate facility in the baseline years that are used in calculating the baseline emissions level for the commercial product or the production class at the aggregate facility.

"Biomass" means non-fossilized plants or plant materials, animal waste or any product made of either of these, including wood and wood products, charcoal, 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.

"Direct emissions" means the sum of regulated electricity emissions and regulated industrial emissions for a commercial product produced at a regulated facility.

"Drilling operation" means any activities associated with drilling, drilling services and service operations occurring at a regulated facility with a commercial product in the upstream oil and gas sector.

"Electricity output ratio" means the gross electricity generation from a unit divided by the sum of the output energy from the unit, determined in accordance with Section 6, where both the numerator and denominator are expressed in the same units of measurement.

"Emission quantification methodology" means the procedure employed by a regulated emitter in accordance with Section 28 or 31, as applicable, to quantify the level of emissions at a regulated facility.

"Flaring emissions" means the controlled release of emissions from industrial activities derived from the combustion or incineration of a gas or liquid stream produced at a facility, used for routine, non-routine or emergency disposal of a waste stream, the purpose of which is not to produce heat or work. This includes emissions from waste petroleum incineration, hazardous emission prevention systems (in pilot or active mode), well testing, natural gas gathering systems, natural gas processing plant operation, crude oil production, pipeline operations, petroleum refining, chemical fertilizer production and steel production.

"Gas-to-power operation" means a unit or group of units at an aggregate facility that generates electricity from the combustion of associated gas that would otherwise be vented, flared or released to the atmosphere as leakage emissions.

“Independent reviewer” means a person who is qualified, according to Subsection 24(5), 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.

“Industrial process emissions” means emissions from an industrial process that involves a chemical or physical reaction other than combustion, the purpose of which is not to produce heat or work. This does not include venting from hydrogen production associated with fossil fuel production. Emissions from fuel combustion used to provide heat for an industrial process, whether they be internal or external to the industrial process equipment, are not considered industrial process emissions.

“Industrial product use emissions” means emissions from the use of a product for an industrial process that does not involve a chemical or physical reaction and does not react in the process. This includes releases from the use of sulfur hexafluoride (SF_6), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs) as cover gases, and the use of HFCs and PFCs in foam blowing. This does not include releases from PFCs and HFCs in refrigeration, air conditioning, semiconductor manufacturing, solvents, aerosols and SF_6 in explosion protection, leak detection, electronic application and fire extinguishing.

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

“ISO” means the International Organization for Standardization.

“ISO 14064-3” means the 2019 version of the Standard ISO 14064-3, published by the ISO.

“ISO 14065” means the 2020 version of the Standard ISO 14065, published by the ISO.

“Leakage emissions” mean the uncontrolled release or leak of emissions from fossil fuel production, processing, transmission and distribution; iron and steel coke batteries; or CO_2 capture, transport, injection and storage infrastructure for long-term geological storage.

“Level of assurance” means the depth of detail that a verification team designs into the verification process and the relative degree of confidence required by a verification team to make conclusions as to whether there are any misstatements.

“Materiality” means the assessment of individual misstatements or the aggregation of statements that could misrepresent a regulated facility’s greenhouse gas (GHG) emissions or commercial production.

“Misstatements” means errors, omissions, misreporting or misrepresentations in the reported GHG emissions or commercial production for a regulated facility.

“On-site transportation emissions” means the emissions from machinery used for the transport or movement of substances, materials, equipment or commercial products that are used in the production process within the boundary of a regulated facility. For the purpose of this standard, the well lease boundaries for each individual facility are considered on-site. Public roads are not considered on-site as per the definition of facility in the regulations.

"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 facility.

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

"Production quantification methodology" means the procedure employed by a regulated emitter to quantify the level of production at an 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, 2023.*

"Statement of verification" means the formal written declaration by the verification team that provides an opinion with respect to the statements in a submission or return by a regulated emitter for a regulated facility in accordance with the applicable verification criteria in Subsection 24(9).

"Stationary fuel combustion" means the releases from stationary fuel combustion sources at a facility in which fuel is burned for the purpose of producing heat or work to be used at the facility.

"Stationary fuel combustion sources" means devices that combust solid, liquid, gaseous or waste fuel for the purpose of producing useful heat or work, including but not limited to boilers, electricity generation units, co-generation units, duct burners and duct firing, combustion turbines, engines, waste incinerators, process heaters and other stationary combustion devices.

"Venting emissions" means the controlled release of process emissions or emissions contained in waste gas released to the atmosphere. This includes emissions of CO_2 associated with carbon capture, transport, injection and storage; hydrogen production associated with fossil fuel production and processing; casing gas; gases associated with a liquid or a solution gas; treater, stabilizer or dehydrator off-gas; blanket gases; pneumatic devices that use natural gas as a driver; compressor start-ups, pipelines and other blowdowns; and metering and regulation control loops.

"Verification report" means a written report prepared by a verification team during the verification process with respect to an aggregate facility.

"Verification team" means a team consisting of one or more qualified persons who satisfy the criteria in Subsection 24(2) that conducts a verification on a regulated facility.

"Waste emissions" means emissions resulting from waste disposal activities at a facility, including landfilling of solid waste, flaring of landfill gas and waste incineration. This does not include emissions resulting from the combustion of waste fuels to produce heat or work;

"Wastewater emissions" means the emissions resulting from industrial wastewater and industrial wastewater

treatment at a facility.

2(2) For the 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 the purposes of Subsection 2(1), any references to the term “aggregate facility” after Section 8 in this standard assumes the aggregate facility has been registered in accordance with Section 8 and is therefore a regulated facility within the meaning of the regulations.

2(4) For the 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.

2(6) For the purposes of the definition of direct emissions, a regulated emitter shall not include emissions associated with drilling operations at a regulated facility that has a commercial product in the upstream oil and gas sector.

3. Reported Data

3(1) When reporting data in a submission or return for an aggregate facility, a regulated emitter shall report all numerical data to four decimal digits.

3(2) All quantified emissions included in a submission or return shall be converted to tonnes of CO_2e.

3(3) Subject to Subsections 4(5), 4(6), 4(10), 4(12) and 4(15), a regulated emitter shall ensure that all regulated emissions from an aggregate facility are included and accounted for in all submissions and returns.

3(4) For certainty and in accordance with Subsection 5(1), a regulated emitter shall not include in the reported commercial production for an aggregate facility any electricity generation produced from renewable sources of energy, including from the combustion of biomass.

3(5) If an individual facility is part of an aggregate facility for part of a baseline or compliance year, the emissions and commercial 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.

3(6) A regulated emitter must quantify the commercial production at the aggregate facility for a baseline or compliance year using the production quantification methodologies selected in accordance with Section 11, within a margin of error of ± five per cent:

(a) for each production class contained within the aggregate facility; and

(b) notwithstanding clause 3(6)(a), for the aggregate facility as a whole.

3(7) Subject to Subsection 3(13), a regulated emitter shall ensure that the production and emissions quantification methodologies and emission factors used to quantify the production and emissions associated with a commercial

product at an aggregate facility are held constant for each baseline year used to establish a baseline emissions intensity and for each subsequent compliance year.

3(8) If, for any reason beyond the control of the regulated emitter, the data required to quantify the emissions for a commercial product within a production class at an aggregate facility are missing for a baseline or compliance 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.

3(9) For the purposes of Subsection 3(8), a regulated emitter shall use:

(a) for a 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.

3(10) If, for any reason beyond the control of the regulated emitter, the data required to quantify the commercial production for BOE for a production class at an aggregate facility are missing for a baseline or compliance year, a regulated emitter shall calculate replacement data using *Directive PNG017 Measurement Requirements for Oil and Gas Operations*.

3(11) A regulated emitter shall ensure any measuring device used to determine a quantity for reporting data in a submission or return for an aggregate facility is installed, operated, calibrated and maintained in accordance with *Directive PNG017 Measurement Requirements for Oil and Gas Operations.*

3(12) A gas-to-power operation cannot be integrated into more than one aggregate facility at the same time.

3(13) In preparing an emissions return for an aggregate facility, a regulated emitter may quantify the commercial production of, and emissions associated with a commercial product in a production class at the aggregate facility in a compliance year using:

(a) the same quantification methodologies and emission factors as those used in the baseline year;

(b) emission factors other than those used for the baseline year if the emission factors are from a more recent version of the same quantification methodology used by the regulated emitter for the baseline year; or

(c) An alternative quantification methodology from the one used for the baseline year by:

(i) identifying and quantifying in the quantification methodology document submitted as part of the emissions return all material discrepancies between the quantification methodology used in the

baseline year and the quantification methodology proposed to be used for the emissions return; and

(ii) providing a reason for the change in the quantification methodology document submitted as part of the emissions return.

3(14) The document version and publication date for the alternative quantification methodology requested by a regulated emitter under clause 3(13)(c) must be the same or more recent than the version and publication date of the quantification methodology used by the regulated emitter for the baseline year of the aggregate facility.

3(15) A compliance obligation incurred by a regulated emitter shall be rounded to the nearest whole number.

3(16) Notwithstanding any provisions in this section, a regulated emitter shall use *The Quantification, Measurement and Sampling Standard* to quantify:

(a) the emissions for electricity generation at an aggregate facility, other than for the electricity generated from the combustion of associated gas, if the capacity of electricity generation at the facility excluding the electricity generation from the combustion of associated gas is equal to or greater than one megawatt; and

(b) the emissions from any drilling operations occurring at an aggregate facility in a compliance year that a regulated emitter may choose to report, in accordance with Subsection 4(12).

4. Concerning Emissions

4(1) Subject to Subsection 4(2), the regulated source categories and the GHG gas species applicable for each regulated source category for an aggregate facility are those included in Table 6 of Appendix D.

4(2) Stationary fuel combustion is the only regulated source category for electricity generation from the combustion of associated gas in a gas-to-power operation and for drilling operations.

4(3) For the purposes of Section 15, a regulated emitter shall include in the direct emissions for an aggregate facility all emissions associated with the on-site generation of electricity, unless the emissions associated with the generation of electricity are from a unit or group of units within the boundary of the aggregate facility that are considered an electricity facility under Subsection 2(6) of the regulations.

4(4) For the purposes of Subsections 1(6), 15(3) and 15(4), any emissions resulting from the use of duct burners and duct firing shall be reported under the stationary fuel combustion source category of:

(a) the regulated industrial emissions of the aggregate facility if the unit or group of units is within the boundary of an aggregate facility and the emissions resulting from the use of duct burners and duct firing do not contribute to the generation of electricity or sold heat; or

(b) the regulated electricity emissions of the aggregate facility if the unit or group if units is within the boundary of an aggregate facility and the emissions resulting from the use of duct burners and duct firing contribute to the generation of electricity or sold heat.

4(5) In accordance with Subsection 5(2), a regulated emitter shall not report 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;

(c) the fermentation of biomass.

4(6) In accordance with Subsection 5(2), a regulated emitter shall not report CH_4 and N_2O emissions resulting from the combustion of biomass for the purpose of producing useful energy at the aggregate facility.

4(7) The owner or operator of an aggregate facility with an integrated gas-to-power operation is considered responsible for all emissions and commercial production from the gas-to-power operation for the portion of the compliance year that the gas-to-power operation was integrated into the aggregate facility.

4(8) For the purposes of Subsections 20(8), 26(1), 26(2), 29(1) and 29(2), the operator of an aggregate facility shall not include the emissions from drilling operations as part of the aggregate facility's direct emissions.

4(9) For clarity regarding Subsection 2(8) of the regulations, if a unit or group of units within the boundary of an aggregate facility is considered an electricity facility:

(a) the emissions that result from the generation of electricity, other than emissions from associated gas combusted in the unit or group of units, from any sold heat and from waste energy from the unit or group of units must be reported under the regulated electricity emissions for the electricity facility;

(b) the emissions from associated gas combusted in the unit or group of units and the emissions from any heat produced by the unit or group of units that is captured and used on-site, other than energy that is captured and recirculated within the unit or group of units, must be reported under the regulated industrial emissions for the industrial facility; and

(c) no emissions are associated with the energy that is captured and recirculated within the unit or group of units until that energy leaves the unit or group of units as:

    (i) electricity, sold heat, or waste energy generated by the unit or group of units;

    (ii) heat that is captured and used on-site at the aggregate facility.

4(10) Subject to Subsections 4(11) and 4(12), a regulated emitter may omit the emissions from a source within a production class at an aggregate facility from a baseline submission or emissions return if the emissions associated with that source are less than 0.5 per cent of the total regulated emissions for that production class during the baseline or compliance year covered by the submission or return.

4(11) The sum of regulated emissions omitted under Subsection 4(10), other than emissions associated with drilling operations that a regulated emitter may choose to omit pursuant to Subsection 4(12), must not exceed 100 tonnes CO_2e for an aggregate facility.

4(12) For the purposes of determining the total regulated emissions for an aggregate facility in a compliance year under Section 21, a regulated emitter may voluntarily report the emissions associated with drilling operations at the aggregate facility in the compliance year if the fossil fuels used for the drilling operations are purchased by the regulated emitter.

4(13) For the purposes of reporting GHG emissions using information from 2023 or a subsequent year, the prescribed greenhouse gases emitted by an aggregate facility shall be converted to CO_2e units using the global warming potentials for those greenhouse gases from IPCC's Fifth Assessment Report, pursuant to Appendix B.

4(14) For greater certainty, a regulated emitter is not required to re-establish a baseline emissions intensity or resubmit an emissions return for an aggregate facility using global warming potentials from the IPCC's Fifth Assessment Report if the baseline submission or emissions return used information from 2022 or a previous year.

4(15) Emissions in the on-site transportation source category from fuels for which the federal fuel charge has been levied in a compliance year are not required to be reported as part of the total regulated emissions for an aggregate facility for that compliance year.

4(16) Emissions that are captured during a compliance year at an aggregate facility subject to this standard must be reported as direct emissions for that aggregate facility.

5. Apportioning Emissions and Production

5(1) If a unit at an aggregate facility combusts a combination of fossil fuels and biomass to generate electricity, the total electricity generated by the unit in a production class from fossil fuels during a year is determined by:

$$\boldsymbol{EG_{i\text{-}a\text{-}u}} = \boldsymbol{ET_{i\text{-}a\text{-}u}} \times \left(\frac{\sum_k \boldsymbol{H_k}}{\boldsymbol{H_B} + \sum_k \boldsymbol{H_k}} \right)$$

where:

$\boldsymbol{EG_{i\text{-}a\text{-}u}}$ is the total electricity generated, including electricity generated from the combustion of associated gas and other fossil fuels, at unit u in production class a in year i, expressed in gigawatt hours;

$\boldsymbol{ET_{i\text{-}a\text{-}u}}$ is the total gross electricity generation, including all electricity used on-site and all commercial production of electricity, including from the combustion of biomass, at unit u in production class a in year i, expressed in gigawatt hours;

$\boldsymbol{H_k}$ is the energy input into the unit from fossil fuel k during the year, expressed in gigawatt hours, as determined by:

$$\boldsymbol{H_k} = \sum_j \left(\boldsymbol{QF_{k\text{-}j}} \times \boldsymbol{HHV_{k\text{-}j}} \right)$$

where:

$\boldsymbol{QF_{k\text{-}j}}$ is the quantity of each type j of fossil fuel k combusted to generate electricity in unit u during the year, expressed in units of volume;

HHV_{k-j} is the higher heating value of each type j of fossil fuel k, expressed in units of energy per unit of volume; and

j is a type of fossil fuel;

H_B is the energy input into the unit from biomass during the year, expressed in gigawatt hours, as determined by:

$$H_B = \sum_{l} (QF_{B-l} \times HHV_{B-l})$$

where:

QF_{B-l} is the quantity of each type of biomass fuel l combusted to generate electricity in unit u during the year, expressed in units of volume;

HHV_{B-l} is the higher heating value of each type of biomass fuel l, expressed in units of energy per unit of volume; and

l is a type of biomass fuel;

i is a year; and

k is the kind of fossil fuel, either gaseous, liquid, or solid fuel, combusted in unit u during the year.

5(2) In accordance with Subsections 4(5) and 4(6), if a unit at an aggregate facility combusts a mixture of biomass and fossil fuels, the emissions associated with that unit during a year, other than those emissions resulting from the combustion of biomass, are determined by:

$$GHG_u = GHG_T \times \left(\frac{GHG_F}{GHG_B + GHG_F}\right)$$

where:

GHG_u are the GHG emissions associated with unit u in the year to be reported under the regulations, expressed in tonnes CO_2e;

GHG_T are the total emissions from combustion of fuel in unit u during the year, expressed in tonnes CO_2e;

GHG_B is the sum of all CO_2, CH_4 and N_2O emissions from combustion of biomass fuel in unit u during the year, expressed in tonnes CO_2e; and

GHG_F are the emissions from combustion of fossil fuels in unit u during the year.

6. Electricity Output Ratio

6(1) Subject to Subsection 6(2), the electricity output ratio for a unit in a production class is determined by:

$$\boldsymbol{EO_{i\text{-}a\text{-}u}} = \frac{\boldsymbol{E_{i\text{-}a\text{-}u}}}{\boldsymbol{E_{i\text{-}a\text{-}u}} + (\boldsymbol{H_{i\text{-}a\text{-}u}} + \boldsymbol{S_{i\text{-}a\text{-}u}}) * \boldsymbol{p_{i\text{-}a\text{-}u}}} \times \mathbf{100}\%$$

where:

$\boldsymbol{EO_{i\text{-}a\text{-}u}}$ is the electricity output ratio for unit u in production class a in year i, expressed in per cent;

$\boldsymbol{E_{i\text{-}a\text{-}u}}$ is the gross electricity generation, including all electricity used on-site and all commercial production of electricity, excluding any electricity generated from the combustion of biomass and associated gas, at unit u in production class a in year i, determined in accordance with Subsection 11(8), expressed in gigajoules;

$\boldsymbol{H_{i\text{-}a\text{-}u}}$ is the useful heat or work, including all useful heat or work used on-site, that is output from unit u in production class a in year i, expressed in gigajoules;

$\boldsymbol{S_{i\text{-}a\text{-}u}}$ is the sold heat from unit u in production class a in year i, expressed in gigajoules;

$\boldsymbol{p_{i\text{-}a\text{-}u}}$ is the percent of input energy fed into unit u in production class a in year i that is used in the commercial production of the gross electricity generation from unit u in production class a in year i;

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

$\boldsymbol{i}$ is a year; and

$\boldsymbol{u}$ is a unit at the facility.

6(2) For the purposes of calculating the electricity output ratio in Subsection 6(1), a regulated emitter shall exclude:

(a) for all units, any electricity generation and any heat or work resulting from the use of duct burners and duct firing;

(b) for a unit within the boundary of an aggregate facility, any heat or work resulting from the combustion of associated gas, and the electricity generation resulting from the combustion of associated gas determined in Subsection 11(6); and

(c) for all units, all waste energy and any heat or work that is captured and recirculated within the unit or group of units at the facility that is not considered sold heat, or useful heat or work.

6(3) For the purpose of determining whether an expanded unit has an electricity output ratio greater than 50 per cent, a regulated emitter shall calculate the ratio in Subsection 6(1) using the values applicable for each variable for the unit after the capacity of the unit was expanded.

7. Composition of Aggregate Facilities and Application for Facility Designation

7(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.

7(2) For the purposes of Subsection 7(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 within 30 business days after receiving the written notice respecting the Minister's decision.

7(3) An aggregate facility consists of at least two individual facilities that 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 total regulated emissions less than 25,000 tonnes CO_2e in the year prior to the year in which the aggregate facility is established and that are not already registered under the regulations;

(c) may include industrial facilities operated by the operator with total regulated emissions less than 25,000 tonnes CO_2e in the year prior to the year in which the aggregate facility is established and that are registered under the regulations; and

(d) subject to Subsection 9(6), shall not include any individual facility with total regulated emissions of at least 25,000 tonnes CO_2e in the year prior to the year in which the aggregate facility is established.

7(4) The owner or operator of two or more individual facilities may apply to the Minister to have those individual facilities considered as one facility under Subsection 2(2) of the regulations.

7(5) An operator may only apply for one designation of an aggregate facility under the regulations.

7(6) An application made under Subsection 7(4) must include a list of all individual facilities to be contained within the aggregate facility that meet the criteria of Subsection 7(3), including any individual facilities the operator chooses to include in the aggregate facility under clause 7(3)(c).

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

7(8) An individual facility and a gas-to-power operation can only be included in one production class.

7(9) If an industrial facility is included in the aggregate facility under clause 7(3)(c), that facility remains registered as an industrial facility and is subject to *The Industrial Facility Standard* until the aggregate facility is registered.

7(10) 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 by the Minister in accordance with Section 27 or 30, as applicable.

8. Registration

8(1) If the owner or operator of a facility that, on registration, will be considered an aggregate facility chooses to voluntarily register that facility under Section 6 of the regulations, the owner or operator must notify the Minister of their intent to register the facility.

8(2) After receiving a notice pursuant to Subsection 8(1), the Minister will provide a registration package to the owner or operator for the facility intended to be registered.

8(3) In completing the registration package for a facility that, on registration will be considered an aggregate facility, it is the responsibility of the owner or operator to ensure that:

(a) all information provided for the facility, including any information provided by the Minister for the 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 Minister in the manner specified by the Minister.

8(4) If an industrial facility subject to *The Industrial Facility Standard* is to be added to a new aggregate facility, the industrial facility shall be added to the aggregate facility effective upon the date that registration of the aggregate facility is approved by the Minister and considered part of the aggregate facility subject to this standard for the entirety of the compliance year.

8(5) For the purposes of Subsection 6(6) of the regulations, if the owner or operator of a facility that, on registration, will be considered an aggregate facility chooses to register that facility under Section 6 of the regulations, the owner or operator must submit the required information to register the facility in the year that the owner or operator wants the facility to be considered an aggregate facility.

8(6) Submission of a registration package pursuant to this section serves as an application to the Minister for the purposes of Subsection 7(4).

9. Addition Respecting Aggregate Facilities

9(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 27 or 30 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 less than 25,000 tonnes CO_2e and is already registered as an industrial facility subject to *The Industrial Facility Standard*; or

(b) subject to Subsection 9(6), 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.

9(2) If an operator did not operate an industrial facility identified in clause 9(1)(a) for any portion of the 12 calendar months preceding commencement of operation of the industrial facility, the industrial facility may be added to the aggregate facility registered for that operator.

9(3) For the purposes of Subsection 9(2):

(a) the industrial facility will be added to the aggregate facility in the next required update to facility information under Section 27 or 30; and

(b) the operator will be responsible for that industrial facility as part of the aggregate facility subject to this standard for the entirety of the compliance year in which the industrial facility is added to the aggregate facility.

9(4) Subject to Subsection 9(6), industrial facilities that the operator has continuously operated since the time an application was made to the Minister under Subsection 7(4) but were not included in the aggregate facility for that operator, shall not be added to the aggregate facility at a later date.

9(5) If an industrial facility subject to *The Industrial Facility Standard* 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 27 or 30.

9(6) If an industrial facility subject to *The Industrial Facility Standard* with a commercial product in the upstream oil and gas sector had total regulated emissions of 25,000 tonnes CO_2e or more in a previous compliance year but had total regulated emissions of less than 25,000 tonnes CO_2e in the most recent compliance year, a regulated emitter may apply to the Minister to add that industrial facility to an aggregate facility owned or operated by the regulated emitter by providing evidence satisfactory to the Minister that the annual emissions for the industrial facility will not again exceed 25,000 tonnes CO_2e.

9(7) For the purposes of Subsection 9(6):

(a) the industrial facility will be added to the aggregate facility owned or operated by the regulated emitter and be subject to this standard as part of the aggregate facility effective upon the next required update to the aggregate facility's information; and

(b) the regulated emitter shall be responsible for that industrial facility as part of the aggregate facility subject to this standard for the entirety of the compliance year.

9(8) If a unit is removed from an electricity facility within the boundary of an aggregate facility, or if an electricity facility within the boundary of an aggregate facility is removed from registration at the end of a compliance year pursuant to Subsection 10(1) of *The Electricity Facility Standard*, then:

(a) the unit or group of units will be added to the aggregate facility on January 1 of the subsequent compliance year;

(b) the regulated emitter is required to adhere to the requirements of this standard for that unit or group of units beginning on January 1 of the compliance year that the unit or group of units is added to the aggregate facility;

(c) the regulated emitter shall re-establish the baseline emissions intensity for the commercial products at the aggregate facility to include the baseline emissions associated with the unit or group of units by June 1 of the compliance year that the unit or group of units is added to the aggregate facility; and

(d) the emissions associated with that unit or group of units shall be reported as part of the aggregate facility whose boundary the unit or group of units is within beginning on January 1 of the compliance year that the unit or group of units is added to the aggregate facility.

10. Removal Respecting Aggregate Facilities

10(1) If an individual facility registered in an aggregate facility has emissions of 25,000 tonnes CO_2e or more, not including any emissions resulting from the combustion of associated gas at a gas-to-power operation, in a compliance year:

(a) that individual facility will be removed from the aggregate facility and no longer subject to this standard at the end of the compliance year in which the individual facility has emissions of 25,000 tonnes CO_2e or more;

(b) the individual facility will be considered an industrial facility subject to *The Industrial Facility Standard* beginning on January 1 of the subsequent compliance year;

(c) the regulated emitter for the industrial facility shall submit the information required to register the facility in accordance with Subsection 5(3) of *The Industrial Facility Standard* by March 31 of that subsequent compliance year; and

(d) the regulated emitter for the industrial facility shall submit to the Minister a baseline submission for the industrial facility in accordance with *The Industrial Facility Standard* by June 1 of that subsequent compliance year.

10(2) 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 Section 27 or 30, as applicable.

10(3) If an electricity facility already exists within the boundary of an aggregate facility and a unit within the aggregate facility subsequently meets the condition in clause 1(6)(a) in a compliance year:

(a) the unit will be removed from the aggregate facility and no longer subject to this standard at the end of that compliance year;

(b) the unit will be added to the electricity facility and subject to *The Electricity Facility Standard* as part of the electricity facility on January 1 of the subsequent compliance year; and

(c) the regulated emitter shall re-establish the baseline emissions intensity for the commercial products at the aggregate facility to remove the baseline emissions associated with the unit removed from the aggregate facility pursuant to clause 10(3)(a) by June 1 of that subsequent compliance year.

10(4) If a unit or group of units within the boundary of an aggregate facility satisfies the criteria in Subsection 1(6) and is considered by the Minister to be an electricity facility pursuant to Subsection 2(6) of the regulations,

(a) the unit or group of units will be removed from the aggregate facility at the end of the compliance year in which the unit or group of units is first considered an electricity facility;

(b) the unit or group of units will be considered an electricity facility and subject to *The Electricity Facility Standard* and the regulated emitter shall not report the emissions associated with that electricity facility as part of the aggregate facility beginning on January 1 of the subsequent compliance year;

(c) the regulated emitter who owns or operates the electricity facility shall submit the information required to register the facility in accordance with Subsection 8(3) of *The Electricity Facility Standard* by March 31 of that subsequent compliance year; and

(d) the regulated emitter shall re-establish the baseline emissions intensity for the commercial products at the aggregate facility to remove the baseline emissions associated with the unit or group of units removed from the aggregate facility pursuant to clause 10(4)(a) by June 1 of that subsequent compliance year.

11.Commercial Products and Production Class

11(1) Regulated emitters will identify or confirm the production class for each individual facility and gas-to-power operation included in an aggregate facility from the list of production classes in Table 2 of Appendix A.

11(2) A regulated emitter must select a production quantification methodology that accounts for all regulated emissions released at the aggregate facility and provides a transparent and accurate representation of the activities at the aggregate facility.

11(3) A regulated emitter shall report commercial production at each production class in an aggregate facility as BOE.

11(4) For the purposes of quantifying production of barrel of oil equivalent that is reported in Subsection 11(3), the regulated emitter shall exclude:

(a) gas that is reported in the registry as flare, vent, and fuel within the aggregate facility; and

(b) associated gas that is used in the generation of electricity at a gas-to-power operation integrated into the aggregate facility.

11(5) Notwithstanding Subsection 11(3), the electricity generated from the combustion of associated gas at a gas-to-power operation within a production class at an aggregate facility shall be considered a commercial product and quantified using units of gigawatt hour.

11(6) For the purposes of Subsections 11(7) and 11(8), and clause 6(2)(b), the electricity generated from the combustion of associated gas at a unit in a gas-to-power operation in a production class at an aggregate facility shall be determined by:

$$\boldsymbol{EP_{i\text{-}a\text{-}u}} = \boldsymbol{EG_{i\text{-}a\text{-}u}} \times \left(\frac{\boldsymbol{AE_{i\text{-}a\text{-}u}}}{\boldsymbol{CE_{i\text{-}a\text{-}u}}}\right)$$

Where:

$\boldsymbol{EP_{i\text{-}a\text{-}u}}$ is the electricity generated from the combustion of associated gas at unit u in the gas-to-power operation in production class a in year i, expressed in gigawatt hours;

$\boldsymbol{EG_{i\text{-}a\text{-}u}}$ is the total electricity generated, including electricity generated from the combustion of associated gas and other fossil fuels, excluding biomass, at unit u in production class a in year i, determined in accordance with Subsection 5(1), expressed in gigawatt hours;

$\boldsymbol{AE_{i\text{-}a\text{-}u}}$ is the energy of the associated gas combusted at unit u in the gas-to-power operation in production class a in year i, expressed in gigajoules;

$\boldsymbol{CE_{i\text{-}a\text{-}u}}$ is the total energy of all fuel combusted at unit u in the gas-to-power operation in production class a in year i, expressed in gigajoules;

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

$\boldsymbol{i}$ is a baseline year for the purpose of calculating baseline information or a compliance year for the purpose of calculating information for an emissions return; and

$\boldsymbol{u}$ is a unit at the facility.

11(7) For the purposes of Subsection 11(5), the electricity generated from the combustion of associated gas at a gas-to-power operation in a production class at an aggregate facility shall be determined by:

$$\boldsymbol{EP_{i\text{-}a}} = \sum_{\boldsymbol{u}} \boldsymbol{EP_{i\text{-}a\text{-}u}}$$

Where:

$\boldsymbol{EP_{i\text{-}a}}$ is the electricity generated from the combustion of associated gas at the gas-to-power operation in production class a in year i, expressed in gigawatt hours;

$\boldsymbol{EP_{i\text{-}a\text{-}u}}$ is the electricity generated from the combustion of associated gas at unit u in a gas-to-power operation in production class a in year i, determined in accordance with Subsection 11(6), expressed in gigawatt hours;

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

$\boldsymbol{i}$ is a baseline year for the purpose of calculating baseline information or a compliance year for the purpose of calculating information for an emissions return; and

$\boldsymbol{u}$ is a unit at the facility.

11(8) For the purposes of Subsection 6(1), the electricity generated from the combustion of fossil fuels, other than associated gas, for each unit in a production class at an aggregate facility shall be determined by:

$$\boldsymbol{E_{i\text{-}a\text{-}u} = EG_{i\text{-}a\text{-}u} - EP_{i\text{-}a\text{-}u}}$$

where:

$\boldsymbol{E_{i\text{-}a\text{-}u}}$ is the gross electricity generation, including all electricity used on-site and all commercial production of electricity, excluding any electricity generated from the combustion of biomass and associated gas, at unit u in production class a in compliance year i, expressed in gigawatt hours;

$\boldsymbol{EG_{i\text{-}a\text{-}u}}$ is the total electricity generated, including electricity generated from the combustion of associated gas and other fossil fuels, excluding biomass, at unit u in production class a in compliance year i, determined in accordance with Subsection 5(1), expressed in gigawatt hours;

$\boldsymbol{EP_{i\text{-}a\text{-}u}}$ is:

(a) the electricity generated from the combustion of associated gas at unit u in a gas-to-power operation in production class a in compliance year i, determined in accordance with Subsection 11(6), expressed in gigawatt hours; or

(b) zero, if unit u is not part of a gas-to-power operation at the aggregate facility;

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

$\boldsymbol{i}$ is a compliance year; and

$\boldsymbol{u}$ is a unit at the facility.

11(9) A commercial product produced at an aggregate facility cannot be placed into standby under Section 8 of the regulations.

11(10) The provisions for new products in the regulations do not apply to the commercial production of barrel of oil equivalent product an aggregate facility nor to any individual facility contained within an aggregate facility.

12.Reduction periods

12(1) For the purposes of Section 13 of the regulations and Table 1 of the regulations, each commercial product at an aggregate facility will have a reduction period established as follows:

(a) the first reduction period is applicable to a product in commercial production at the aggregate facility during the aggregate facility's first compliance year;

(b) notwithstanding clause 12(1)(a), the first reduction period for a new product in commercial production at an aggregate facility is the first year in which the regulated emitter intends to have that product subject to a performance standard;

(c) for every subsequent compliance year, the subsequent reduction period is applicable to the product in commercial production at the aggregate facility; and

(d) if additional reduction periods are not available, the final reduction period applies to the product in commercial production at the aggregate facility.

12(2) Notwithstanding Subsections 12(8) and 12(10), when an aggregate facility has a baseline emissions intensity for a commercial product or production class re-established, the aggregate facility will maintain the same reduction period for that commercial product in a production class.

12(3) The barrel of oil equivalent product in each production class within an aggregate facility is subject to the same reduction period, including if new production classes are introduced.

12(4) The electricity generated from the combustion of associated gas at a gas-to-power operation within a production class may be in a different reduction period than the barrel of oil equivalent product for that production class.

12(5) The electricity generated from the combustion of associated gas at gas-to-power operations located in different production classes may be in different reduction periods.

12(6) If additional capacity is added to a gas-to-power operation in a production class where a baseline has already been established for electricity generated from the combustion of associated gas, the emissions and commercial production associated with that additional capacity will be included in gas-to-power reporting for a given compliance year and the electricity generated from the combustion of associated gas in a gas-to-power operation will maintain the same reduction period schedule.

12(7) 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 industrial facility at later date, the reduction period continues for that facility as though it was never removed from registration.

12(8) If the BOE product at an individual facility or group of individual facilities that is added to an aggregate facility has a different reduction period than the BOE product at the aggregate facility and:

(a) if the stationary fuel combustion emissions associated with the BOE product at 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 for the BOE product at the aggregate facility is maintained, including for the newly added facility or facilities; or

(b) if the stationary fuel combustion emissions associated with the BOE product at 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 newly added facility or facilities and the existing aggregate facility is applicable to the BOE product at aggregate facility, including for the newly added facility or facilities.

12(9) For the purposes of Subsection 12(8), a group of individual facilities includes any individual facilities added to an aggregate facility within a three-month period.

12(10) If the electricity generation from combustion of associated gas in a gas-to-power operation at an individual facility or group of individual facilities that is added to a production class at an aggregate facility has a different reduction period than the electricity generation from the combustion of associated gas in a gas-to-power operation that already exists within the applicable production class in the aggregate facility, and:

(a) if the emissions associated with the electricity generation from the combustion of associated gas in the gas-to-power operation at the facility or group of facilities being added to the production class is equal to or below 1,000 tonnes CO_2e, the reduction period for the electricity generation from the combustion of associated gas in the gas-to-power operation already in the production class is maintained; or

(b) if the emissions associated with the electricity generation from the combustion of associated gas in the gas-to-power operation at the facility or group of facilities being added to the production class is above 1,000 tonnes CO_2e, the reduction period with the more stringent performance standard allocation between the electricity generation from the combustion of associated gas at the gas-to-power operation at the newly added facility or facilities and the electricity generation from the combustion of associated gas at the gas-to-power operation already in the production class is applicable to all electricity generation from the combustion of associated gas at the gas-to-power operation in the production class.

12(11) The reduction period determined in Subsection 12(8) applies to the BOE product produced at the aggregate facility for the compliance year in which the individual facility or group of individual facilities is added to the aggregate facility.

12(12) The reduction period determined in Subsection 12(10) applies to the electricity generation from the combustion of associated gas at a gas-to-power operation within a production class for the compliance year in which the individual facility or group of individual facilities is added to the aggregate facility.

12(13) If a unit or group of units is added to an aggregate facility pursuant to Subsection 9(8), the reduction period for the BOE product at the aggregate facility remains unchanged.

12(14) If the generation of electricity from the combustion of associated gas at a production class in an aggregate facility ceases in a compliance year and recommences in a subsequent compliance year, the reduction period schedule for the electricity generation from the combustion of associated gas in that production class will be maintained as if the generation of electricity never ceased.

13. Maintenance of the First Compliance Year

13(1) If an industrial facility subject to *The Industrial Facility Standard* is added to an aggregate facility, the first compliance year of that aggregate facility is maintained.

13(2) If a unit or group of units within the boundary of an aggregate facility was previously registered as an electricity facility subject to *The Electricity Facility Standard* and is subsequently added to that aggregate facility in accordance with Section 9, the first compliance year for the aggregate facility is maintained.

14. Determining Baseline Years

14(1) For the commercial product described in Subsection 11(3) that is produced within a production class, a regulated emitter shall use as a baseline year the calendar year prior to the first compliance year for that production class.

14(2) For the commercial product described in Subsection 11(5) that was first generated in a production class in:

(a) 2020, the baseline years for the electricity generation from the combustion of associated gas are 2021 and 2022; or

(b) 2021 or a subsequent year, the baseline years for the electricity generation from the combustion of associated gas are the two consecutive years after the year the gas-to-power operation began generating electricity from the combustion of associated gas.

15. Calculating Direct Emissions

15(1) For the purpose of calculating regulated industrial emissions by production class for an aggregate facility in clauses 15(3)(a) and 15(4)(a), the regulated emitter shall:

(a) include:

(i) the emissions from stationary fuel combustion, including the emissions from associated gas and other fossil fuels;

(ii) industrial product use emissions;

(iii) flaring emissions;

(iv) on-site transportation emissions;

(b) exclude:

(i) the emissions from biomass in accordance with Subsections 4(5) and 4(6);

(ii) the emissions from the generation of electricity, other than those from the combustion of associated gas.

15(2) For the purpose of calculating regulated electricity emissions by production class for an aggregate facility in clauses 15(3)(b) and 15(4)(b), the regulated emitter shall:

(a) include the emissions from the generation of electricity, other than those from the combustion of associated gas; and

(b) exclude the emissions from biomass in accordance with Subsections 4(5) and 4(6).

15(3) For the purpose of calculating emissions by production class for an aggregate facility that is subject to Part 2 of this standard:

(a) the regulated industrial emissions for each commercial product in a production class at an aggregate facility are determined by:

$$\boldsymbol{RI_{i\text{-}a\text{-}b}} = \sum_{\boldsymbol{j}} \left(\boldsymbol{VI_{i\text{-}a\text{-}b\text{-}j}} \times \boldsymbol{EF_j}\right) + \sum_{\boldsymbol{p}} \left(\boldsymbol{QI_{i\text{-}a\text{-}b\text{-}p}} \times \boldsymbol{GWP_p}\right)$$

where:

$\boldsymbol{RI_{i\text{-}a\text{-}b}}$ are the regulated industrial emissions for commercial product b in production class a in year i, expressed in tonnes of CO_2e;

$\boldsymbol{VI_{i\text{-}a\text{-}b\text{-}j}}$ is the total volume of a particular fuel type j from stationary fuel combustion or flare, as applicable, for commercial product b in production class a in year i, expressed in units consistent with the prescribed emissions factor for the particular fuel type j, as listed in Appendix C;

$\boldsymbol{EF_j}$ is the prescribed emissions factor for the particular fuel type j for stationary fuel combustion or flare, as applicable, as listed in Appendix C;

$\boldsymbol{QI_{i\text{-}a\text{-}b\text{-}p}}$ are the total emissions of a particular prescribed GHG species p from on-site transportation or industrial product use, as applicable, from sources not allocated to the generation of electricity, including from associated gas, for commercial product b in production class a in year i, expressed in tonnes of the prescribed GHG species p;

$\boldsymbol{GWP_p}$ is the applicable global warming potential for the particular prescribed GHG species p, as listed in Table 3 in Appendix B;

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

$\boldsymbol{b}$ is a commercial product in production class a;

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

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

$\boldsymbol{p}$ is a prescribed GHG species.

(b) the regulated electricity emissions for each commercial product at a production class at an aggregate facility are determined by:

$$\boldsymbol{RE_{i\text{-}a\text{-}b}} = \sum_{j}\left(\boldsymbol{VE_{i\text{-}a\text{-}b\text{-}j}} \times \boldsymbol{EF_j}\right) + \sum_{p}\left(\boldsymbol{QE_{i\text{-}a\text{-}b\text{-}p}} \times \boldsymbol{GWP_p}\right)$$

where:

$\boldsymbol{RE_{i\text{-}a\text{-}b}}$ are the regulated electricity emissions for commercial product b in production class a in year i, expressed in tonnes of CO_2e;

$\boldsymbol{VE_{i\text{-}a\text{-}b\text{-}j}}$ is the total volume of a particular fuel type j from stationary fuel combustion or flare, as applicable, for the generation of electricity for commercial product b in production class a in year i, expressed in units consistent with the prescribed emissions factor for the particular fuel type j, as listed in Appendix C;

$\boldsymbol{EF_j}$ is the prescribed emissions factor for the particular fuel type j for stationary fuel combustion or flare, as applicable, as listed in Appendix C;

$\boldsymbol{QE_{i\text{-}a\text{-}b\text{-}p}}$ are the total emissions of a particular prescribed GHG species p from on-site transportation or industrial product use, as applicable, from sources allocated to electricity production, including from fossil fuels other than associated gas, for commercial product b in production class a in year i, quantified in accordance with Subsection 3(16), as applicable, expressed in tonnes of the prescribed GHG species p;

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

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

$\boldsymbol{b}$ is a commercial product in production class a;

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

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

$\boldsymbol{p}$ is a prescribed GHG species.

15(4) For the purpose of calculating emissions by production class for an aggregate facility that is subject to Part 3 of this standard:

(a) the regulated industrial emissions for each commercial product at a production class at an aggregate facility are determined by:

$$\boldsymbol{RI_{i\text{-}a\text{-}b}} = \sum_{y}\sum_{p}\left(\boldsymbol{GI_{i\text{-}a\text{-}b\text{-}y\text{-}p}} \times \boldsymbol{GWP_p}\right)$$

where:

$\boldsymbol{RI_{i-a-b}}$ are the regulated industrial emissions of an aggregate facility for commercial product b in production class a in year i, expressed in tonnes of CO_2e;

$\boldsymbol{GI_{i-a-b-y-p}}$ are the total emissions of a particular prescribed GHG species p from a regulated source category y outlined in Subsection 4(1) or 4(2), as applicable, from sources not allocated to the generation of electricity, including from associated gas, for commercial product b in production class a in year i, expressed in tonnes of the prescribed GHG species p;

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

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

$\boldsymbol{b}$ is a commercial product in production class a;

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

$\boldsymbol{p}$ is a prescribed GHG species; and

$\boldsymbol{y}$ is a source category outlined in Subsection 4(1) or 4(2), as applicable.

(b) the regulated electricity emissions for each commercial product at a production class at an aggregate facility are determined by:

$$\boldsymbol{RE_{i-a-b} = \sum_{y} \sum_{p} \left(GE_{i-a-b-y-p} \times GWP_p \right)}$$

where:

$\boldsymbol{RE_{i-a-b}}$ are the regulated electricity emissions of an aggregate facility for commercial product b in production class a in baseline or compliance year i, expressed in tonnes of CO_2e;

$\boldsymbol{GE_{i-a-b-y-p}}$ are the total emissions of a particular prescribed GHG species p from a regulated source category y outlined in Subsection 4(1) or 4(2), as applicable, from sources allocated to the generation of electricity, including from fossil fuels other than associated gas, for commercial product b in production class a in year i, quantified in accordance with Subsection 3(16), as applicable, expressed in tonnes of the prescribed GHG species p;

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

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

$\boldsymbol{b}$ is a commercial product in production class a;

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

$\boldsymbol{p}$ is a prescribed GHG species; and

$\boldsymbol{y}$ is a source category outlined in Subsection 4(1) or 4(2), as applicable.

15(5) The direct emissions for each commercial product at a production class at an aggregate facility are determined by:

$$\boldsymbol{DE_{i\text{-}a\text{-}b} = RI_{i\text{-}a\text{-}b} + RE_{i\text{-}a\text{-}b}}$$

where:

$\boldsymbol{DE_{i\text{-}a\text{-}b}}$ are the direct emissions for commercial product b in production class a in baseline or compliance year i, expressed in tonnes of CO_2e;

$\boldsymbol{RI_{i\text{-}a\text{-}b}}$ are the regulated industrial emissions of an aggregate facility for commercial product b in production class a in baseline or compliance year i, expressed in tonnes of CO_2e;

$\boldsymbol{RE_{i\text{-}a\text{-}b}}$ are the regulated electricity emissions of an aggregate facility for commercial product b in production class a in baseline or compliance year i, expressed in tonnes of CO_2e;

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

$\boldsymbol{b}$ is a commercial product in production class a; and

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

16. Baseline Submissions

16(1) When preparing a baseline submission for an aggregate facility, a regulated emitter shall:

(a) complete all required forms;

(b) for an aggregate facility subject to Part 3 of this standard, provide a quantification methodology document with the required emissions and production information, completed in the format specified by the Minister in an applicable template;

(c) if an aggregate facility has a unit or group of units that are not considered an electricity facility under the regulations, provide a simplified process flow diagram of the layout for the unit or group of units and the following information for the baseline year:

(i) the total amount of fuel used by the unit or group of units;

(ii) the total emissions from the unit or group of units;

(iii) the emissions from the production of heat from the unit or group of units;

(iv) the emissions from the generation of electricity from the unit or group of units;

(v) the total net heat produced from the unit or group of units;

(vi) the total electricity generated from the unit or group of units; and

(vii) the operating time of the unit or group of units.

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

(e) include a completed verification report completed in the format specified by the Minister in an applicable template 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.

16(2) Prior to submitting a baseline submission, a regulated emitter shall ensure that all the information contained within the baseline submission is verified by a qualified person according to Section 24, unless the aggregate facility is subject to Subsection 16(9).

16(3) For the purposes of Subsection 15(3)(a) of the regulations, a regulated emitter shall submit the completed, verified baseline submission within six months from the date of registration for the aggregate facility.

16(4) A regulated emitter shall submit the completed, verified baseline submission for the electricity generated from the combustion of associated gas at a gas-to-power operation by June 1 of the first compliance year of the gas-to-power operation.

16(5) After a 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.

16(6) Upon receipt of a written response in clause 16(5)(b), a regulated emitter shall fulfil any actions required and resubmit the required information prior to the deadline indicated in the written response.

16(7) If a regulated emitter is required to re-verify a baseline submission for an aggregate facility in accordance with subclause 16(5)(b)(iii), the regulated emitter shall submit:

(a) a new verification statement;

(b) any new information, including emissions and production data, that was not included in the original baseline submission; and

(c) any other documentation, reports or forms that the Minister may require.

16(8) Upon resubmission of the required information in clause 16(5)(b), the information will be reviewed and the regulated emitter will be provided with a written response that:

(a) provides a statement in accordance with Subsection 16(5); or

(b) establishes the baseline emissions intensity for each commercial product that is produced in a production class at the aggregate facility.

16(9) Notwithstanding clause 16(1)(e) and Subsection 16(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 that the baseline emissions level for all commercial products in all production classes considered in the baseline submission for the aggregate facility is equal to or less than 1,000 tonnes CO_2e.

16(10) Notwithstanding Subsection 16(4) and subject to Section 14, if an aggregate facility begins generating electricity from the combustion of associated gas at a gas-to-power operation in a production class that has been in operation for less than two years:

(a) the electricity generation from the combustion of associated gas at the gas-to-power operation will be considered a new commercial product within the production class; and

(b) the regulated emitter shall submit a completed and verified baseline submission for the new commercial product by June 1 of the first compliance year after the gas-to-power operation has been in operation for two full years.

17.Calculating Baseline Emissions Intensity

17(1) A regulated emitter shall determine a baseline emissions intensity for each commercial product in each production class in which at least one individual facility within the aggregate facility operates.

17(2) For the purpose of calculating the baseline emissions intensity for a commercial product in a production class at an aggregate facility, the baseline emissions for a commercial product in a production class at an aggregate facility are determined by:

$$\boldsymbol{BE_{i\text{-}a\text{-}b} = DE_{i\text{-}a\text{-}b}}$$

where:

$\boldsymbol{BE_{i\text{-}a\text{-}b}}$ are the baseline emissions for the purpose of producing commercial product b in production class a in baseline year i, expressed in tonnes of CO_2e;

$\boldsymbol{DE_{i\text{-}a\text{-}b}}$ are the direct emissions for the aggregate facility for commercial product b in production class a in

baseline year i, expressed in tonnes of CO_2e, as determined in Subsection 15(5);

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

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

$\boldsymbol{b}$ is a commercial product in production class a.

17(3) A regulated emitter shall determine the baseline emissions level for each commercial product in a production class at an aggregate facility by:

$$\boldsymbol{BEL_{a\text{-}b} = \frac{1}{n}\sum_{i=1}^{n} DE_{i\text{-}a\text{-}b}}$$

where:

$\boldsymbol{BEL_{a\text{-}b}}$ is the baseline emissions level for commercial product b in production class a of the aggregate facility, expressed in tonnes of CO_2e;

$\boldsymbol{DE_{i\text{-}a\text{-}b}}$ are the direct emissions for the aggregate facility for commercial product b in production class a in baseline year i, expressed in tonnes of CO_2e;

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

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

$\boldsymbol{b}$ is a commercial product in production class a; and

$\boldsymbol{n}$ is the number of baseline years used to establish the baseline for commercial product b.

17(4) A regulated emitter shall determine the baseline production level for each commercial product in a production class at an aggregate facility by:

$$\boldsymbol{BPL_{a\text{-}b} = \frac{1}{n}\sum_{i=1}^{n} P_{i\text{-}a\text{-}b}}$$

where:

$\boldsymbol{BPL_{a\text{-}b}}$ is the baseline production level for commercial product b in production class a, expressed in either BOE or gigawatt hours, as applicable;

$\boldsymbol{P_{i\text{-}a\text{-}b}}$ is the amount of commercial product b produced during baseline year i in production class a, expressed in BOE pursuant to Subsection 11(4) or gigawatt hours pursuant to Subsection 11(7), as applicable;

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

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

$\boldsymbol{b}$ is a commercial product in production class a; and

$\boldsymbol{n}$ is the number of baseline years used to establish the baseline for commercial product b.

17(5) A regulated emitter shall determine the baseline emissions intensity for a commercial product in a production class at an aggregate facility by:

$$\boldsymbol{BEI_{a-b}} = \frac{\boldsymbol{BEL_{a-b}}}{\boldsymbol{BPL_{a-b}}}$$

where:

$\boldsymbol{BEI_{a-b}}$ is the baseline emissions intensity for commercial product b in production class a, expressed in tonnes of CO_2e per BOE or tonnes of CO_2e per gigawatt hour, as applicable;

$\boldsymbol{BEL_{a-b}}$ is the baseline emissions level for commercial product b in production class a, expressed in tonnes of CO_2e;

$\boldsymbol{BPL_{a-b}}$ is the baseline production level for commercial product b in production class a, expressed in BOE or gigawatt hours, as applicable;

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

$\boldsymbol{b}$ is a commercial product in production class a.

18.Re-establishing Baseline Emissions Intensity

18(1) Re-establishing a baseline emissions intensity occurs at the level of production class at the aggregate facility.

18(2) A regulated emitter shall notify the Minister within 30 days if one of the conditions in Subsections 28(5) or 31(3) is satisfied or within 30 days of becoming aware that one of the conditions in clauses 15(5)(a) through 15(5)(f) of the regulations is satisfied.

18(3) If a regulated emitter applies or is required to re-establish the baseline emissions intensity for a commercial product at the aggregate facility, the regulated emitter is not required to re-establish the baseline emissions intensities for the other commercial products at the aggregate facility if the Minister is satisfied that the baseline emissions intensities for the other commercial products are not affected.

18(4) If a regulated emitter applies or is required to re-establish the baseline emissions intensity for a commercial product 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 16(9).

18(5) In an application submitted by a regulated emitter to re-establish the baseline emissions intensity for a commercial product at an aggregate facility, the regulated emitter shall provide the information necessary to 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 commercial product at the aggregate facility is being made;

(b) the proposed new baseline emissions intensity, as determined based on the applicable information submitted in the format and manner required under Subsection 16(1);

(c) evidence that demonstrates the proposed baseline emissions intensity in clause 18(5)(b) is representative for the commercial product at the aggregate facility; and

(d) demonstration that verification required by Subsection 18(4) has occurred, if applicable.

18(6) An application by a regulated emitter to re-establish the baseline emissions intensity for a commercial product at an aggregate facility must, in accordance with Section 14, use data from years prior to the compliance year in which the re-established baseline emissions intensity is to apply.

18(7) Upon submission of an application by a regulated emitter, the application will be reviewed and the regulated emitter will be provided with a written response that indicates:

(a) the proposed re-established 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.

18(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 written response that:

(a) provides a statement in accordance with Subsection 18(7); or

(b) establishes the baseline emissions intensity for the commercial product at the aggregate facility.

18(9) For the purposes of Subsection 15(5) of the regulations, when requiring a regulated emitter to re-establish a baseline emissions intensity for a commercial product at an aggregate facility, the Minister shall:

(a) provide the regulated emitter who owns or operates the aggregate facility with written notice of the Minister's decision along with reasons for the decision;

(b) provide written instructions, including the verification process that the Minister may require that differs from the verification process outlined in this standard; and

(c) give the regulated emitter an opportunity to make written representations within 30 business days after receiving the written notice respecting the Minister's decision.

19.Calculating Performance Standards

19 The Minister shall determine a performance standard for each commercial product produced in a production class at an aggregate facility for each reduction period by:

$$\boldsymbol{PS_{k\text{-}a\text{-}b} = PSA_{k\text{-}a\text{-}b} \times BEI_{a\text{-}b}}$$

where:

$\boldsymbol{PS_{k\text{-}a\text{-}b}}$	is the performance standard for commercial product b in production class a in reduction period k, expressed in tonnes of CO_2e per BOE or tonnes of CO_2e per gigawatt hour as applicable;
$\boldsymbol{PSA_{k\text{-}a\text{-}b}}$	is the performance standard allocation at an aggregate facility for commercial product b in production class a in reduction period k determined by Table 1 of the regulations;
$\boldsymbol{BEI_{a\text{-}b}}$	is the baseline emissions intensity for commercial product b in production class a, expressed in tonnes of CO_2e per BOE or tonnes of CO_2e per gigawatt hour as applicable;
$\boldsymbol{a}$	is a production class at the aggregate facility;
$\boldsymbol{b}$	is a commercial product in production class a; and
$\boldsymbol{k}$	is the given reduction period for commercial product b in production class a, as established in Section 12.

20. Emissions Returns

20(1) When preparing an emissions return for an aggregate facility, a regulated emitter shall:

(a) complete all required forms;

(b) for an aggregate facility that is subject to Part 3 of this standard in the compliance year, provide a quantification methodology document with the required emissions and commercial production information, completed in the format specified by the Minister in an applicable template;

(c) if an aggregate facility has a unit or group of units that are not considered an electricity facility under the regulations, provide a simplified process flow diagram of the layout for the unit or group of units and the following information:

(i) the total amount of fuel used by the unit or group of units;

(ii) the total emissions from the unit or group of units;

(iii) the emissions from the production of heat from the unit or group of units;

(iv) the emissions from the generation of electricity from the unit or group of units;

(v) the total net heat produced from the unit or group of units;

(vi) the total electricity generated from the unit or group of units; and

(vii) the operating time of the unit or group of units.

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

(e) include a completed verification report in the format specified by the Minister in an applicable template and a signed statement of verification from a qualified person who performed a verification on the aggregate facility;

(f) in accordance with Subsection 3(13), submit evidence satisfactory to the Minister that supports the use of emission factors or quantification methodologies other than those used in establishing the baseline emissions intensity for the commercial product at the aggregate facility; and

(g) submit all required information to the Minister in the manner specified by the Minister.

20(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 24, unless the aggregate facility is subject to Subsection 20(8).

20(3) For the purposes of clause 23(1)(a) of the regulations, a regulated emitter shall submit a completed, verified emissions return for an aggregate facility by June 1 of the calendar year following the compliance year for which the emissions return is being prepared.

20(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 or performance credits earned 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.

20(5) Upon receipt of a written response in clause 20(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.

20(6) If a regulated emitter is required to re-verify an emissions return in accordance with subclause 20(4)(b)(iii), the regulated emitter shall submit:

(a) a new statement of verification;

(b) any new information, including emissions and commercial production data, that was not included in the original emissions return; and

(c) any other documentation, reports or forms that the Minister may require.

20(7) Upon resubmission of required information in clause 20(4)(b), the information will be reviewed, and the regulated emitter will be provided a written response subject to Subsection 20(4).

20(8) Notwithstanding clause 20(1)(e) and Subsection 20(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 the total regulated emissions for 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.

21.Total Regulated Emissions

21(1) A regulated emitter who owns or operates an aggregate facility subject to Parts 2 or 3 of this standard shall determine the total regulated emissions for that aggregate facility during a compliance year by:

$$\boldsymbol{TE_i} = \left(\sum_{\boldsymbol{a=1}}^{\boldsymbol{n}} \sum_{\boldsymbol{b=1}}^{\boldsymbol{m}} \boldsymbol{DE_{i-a-b}} \right) + \boldsymbol{D_i}$$

where:

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

$\boldsymbol{DE_{i-a-b}}$ are the direct emissions for the aggregate facility for commercial product b in production class a in compliance year i, determined in accordance with Subsection 15(5), expressed in tonnes of CO_2e;

$\boldsymbol{D_i}$ are the stationary fuel combustion emissions from fuel purchased by the regulated emitter for drilling operations at the aggregate facility during compliance year i, determined in accordance with Subsection 21(2), expressed in tonnes of CO_2e;

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

$\boldsymbol{b}$ is a commercial product in production class a of the aggregate facility;

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

$\boldsymbol{m}$ is the number of commercial products in production class a at the aggregate facility; and

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

21(2) If a regulated emitter chooses to report drilling emissions at an aggregate facility in a compliance year in accordance with Subsection 4(12), the regulated emitter must determine the drilling emissions at an aggregate facility by:

$$\boldsymbol{D_i} = \sum_{\boldsymbol{a}} \sum_{\boldsymbol{p}} \left(\boldsymbol{C_{i\text{-}a\text{-}p}} \times \boldsymbol{GWP_p} \right)$$

where:

$\boldsymbol{D_i}$	are the drilling emissions for all drilling operations at the aggregate facility in compliance year i, expressed in tonnes of CO_2e;
$\boldsymbol{C_{i\text{-}a\text{-}p}}$	are the total emissions of a particular prescribed GHG species p from all drilling activities at an aggregate facility in production class a in compliance year i, quantified in accordance with Subsection 3(16), expressed in tonnes of the prescribed GHG species;
$\boldsymbol{GWP_p}$	is the global warming potential for the particular prescribed GHG species p, as listed in Appendix B;
$\boldsymbol{a}$	is the production class of the aggregate facility;
$\boldsymbol{i}$	is the compliance year; and
$\boldsymbol{p}$	is the prescribed GHG species.

22.Permitted Emissions

22(1) Subject to Subsection 22(2) and 22(3), the permitted emissions for an aggregate facility in a given compliance year shall be determined by:

$$\boldsymbol{PE_i} = \sum_{\boldsymbol{a=1}}^{\boldsymbol{n}} \sum_{\boldsymbol{b=1}}^{\boldsymbol{m}} (\boldsymbol{PS_{k\text{-}a\text{-}b}} \times \boldsymbol{P_{i\text{-}a\text{-}b}}) + (\boldsymbol{B_D} \times \boldsymbol{M_i})$$

where:

$\boldsymbol{PE_i}$	are the permitted emissions for the aggregate facility in compliance year i, expressed in tonnes of CO_2e;
$\boldsymbol{PS_{k\text{-}a\text{-}b}}$	is the performance standard for commercial product b in production class a in reduction period k, expressed in tonnes of CO_2e per BOE or tonnes of CO_2e per gigawatt hour, as applicable;
$\boldsymbol{P_{i\text{-}a\text{-}b}}$	is the level of production of commercial product b in production class a during compliance year i, expressed in BOE pursuant to Subsection 11(4) or gigawatt hour pursuant to Subsection 11(7), as applicable;
$\boldsymbol{B_D}$	is the benchmark used for drilling operations at an aggregate facility, equal to 0.0255 tonnes CO_2e per

metre drilled;

M_i is the number of metres drilled at an aggregate facility through a drilling operation in compliance year i, determined in in accordance with Subsection 22(4), expressed in metres;

a is a production class for the aggregate facility;

b is a commercial product in production class a at the aggregate facility in compliance year i;

i is the compliance year;

k is the reduction period for commercial product a;

m is the number of commercial products in production class a at the aggregate facility; and

n is the number of production classes at the aggregate facility.

22(2) The Minister shall ensure that the permitted emissions determined for an aggregate facility does not result in a regulated emitter receiving permitted emissions for both:

(a) the portion of the electricity generation from associated gas combusted at a gas-to-power operation in the compliance year that corresponds to associated gas that was flared in the baseline years for the aggregate facility; and

(b) the portion of the baseline emissions intensity that corresponds to the emissions from the associated gas flared in the baseline years for the aggregate facility that is being combusted in the compliance year to generate electricity at a gas-to-power operation.

22(3) If a regulated emitter chooses to report emissions from drilling operations at an aggregate facility under Subsection 4(12) when calculating the total regulated emissions for the facility under this standard, a regulated emitter shall report the number of metres drilled during the compliance year to determine the permitted emissions for the facility.

22(4) For the purposes of Subsection 22(3), the total metres drilled using fuel purchased by the regulated emitter for the aggregate facility shall be determined by:

$$M_i = \sum_a DP_{i-a}$$

where:

M_i is the total depth drilled, associated with the drilling operations in an aggregate facility in compliance year i, expressed in metres;

DP_{i-a} is the total depth drilled in production class a in compliance year i, expressed in metres;

a is a production class of the aggregate facility; and

i is the compliance year.

23.Compliance Returns

23(1) For the purposes of clause 24(2)(a) of the regulations, if it is determined based on the information provided in an emissions return for a compliance year for an aggregate facility that a regulated emitter owes a compliance obligation, the regulated emitter shall submit a compliance return and fulfil the compliance obligation by October 31 of the year following the year in which the emissions return is submitted.

23(2) The compliance return must include the following information:

(a) any required forms;

(b) an indication of the compliance options used to fulfil the compliance obligation incurred including, as applicable:

(i) a payment to the Government of Saskatchewan for deposit in accordance with the Act;

(ii) a list of any performance credits retired to fulfil the compliance obligation;

(iii) a list of any CCUS credits retired to fulfil the compliance obligation; and

(c) a signed declaration from the authorized signing officer attesting to the accuracy and completeness of the compliance return.

23(3) After a submitted compliance return for an aggregate facility has been reviewed for completeness, the Minister will provide the regulated emitter 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

(ii) any corrective action that may be required.

23(4) Upon receipt of a written response in clause 23(3)(b), the regulated emitter shall fulfil any actions required and resubmit the required information prior to the deadline established in the written response.

23(5) Upon resubmission of required information in clause 23(3)(b), the information will be reviewed, and the regulated emitter will be provided a written response subject to Subsection 23(3).

24.Verification Requirements

24(1) For the purpose of performing the verification on a baseline submission or an emissions return under the regulations, a qualified person is a person employed by an accredited verification body.

24(2) A regulated emitter shall ensure that all members of the verification team performing a verification on an aggregate facility are employed by an accredited verification body that meets the requirements of and is accredited under ISO 14065.

24(3) 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 and resources as requested by the verification team conducting the verification.

24(4) A regulated emitter shall ensure that a verification report is prepared for the aggregate facility in the format specified by the Minister in an applicable template and in accordance with the ISO 14064-3 standard.

24(5) A regulated emitter shall ensure that before an unmodified, modified or adverse opinion is prepared for a verification statement, the determination that forms the basis of the opinion 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 unless impartiality can be demonstrated by the accredited verification body.

24(6) A regulated emitter shall ensure that the verification of emissions and commercial 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.

24(7) Materiality is determined according to the following formula:

$$\boldsymbol{Materiality} = \frac{\sum_i |\boldsymbol{A_i}|}{\boldsymbol{B}} \times \mathbf{100}\%$$

where:

$\sum_i |\boldsymbol{A_i}|$ is:

(a) for the purposes of the verification of GHG emissions, the sum of the absolute value of all individual misstatements of GHG emissions, in tonnes of CO_2e; or

(b) for the purposes of the verification of commercial production data, the sum of the absolute value of all individual misstatements of production information, in units of BOE or gigawatt hour, as applicable; and

$\boldsymbol{B}$ is:

(a) for the purposes of the verification ofGHG emissions, the total regulated emissions, in tonnes of CO_2e, as corrected by the verification team; or

(b) for the purposes of the verification of commercial production data, the total amount of commercial product produced, in units of BOE or gigawatt hour, as applicable, as corrected by the verification team.

24(8) For the purpose of completing a verification statement for an aggregate facility, a material discrepancy in the emissions and commercial production data reported by the regulated emitter will exist if the level of materiality exceeds the following thresholds:

(a) for GHG emissions,

(i) five per cent of quantified GHG emissions for an aggregate facility emitting less than 500,000 tonnes CO_2e in the given compliance year; or

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

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

24(9) A regulated emitter shall ensure that at the end of the verification process, a statement of verification is prepared reflecting a type of opinion in column 1 of Table 1 based on the corresponding determination made by the verification team in column 2 of Table 1.

24(10) To ensure impartiality with respect to an aggregate facility undergoing verification, a regulated emitter shall ensure that 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:

(a) a member of the verification team; or

(b) the accredited verification body for which the verification team is employed.

Table 1
Types of Opinion
[Subsection 24(9)]

Type of Opinion	Determination of Verification Team
Unmodified	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; (ii) the emissions return or baseline submission was prepared in accordance with this standard.
Modified	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;

	(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; (ii) the emissions return or baseline submission was not prepared substantially in accordance with this standard.

24(11) 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 clause 24(11)(e);

(b) the most recent verification with respect to the aggregate facility resulted in an adverse opinion in the statement of verification submitted to the Minister;

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

(d) a verification of baseline emissions intensity data is required in accordance with Subsection 18(4); or

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

24(12) A site visit conducted at an aggregate facility under the requirements of the Government of Canada's *Output-Based Pricing System Regulations* while that facility was subject to the Government of Canada's *Output-Based Pricing System Regulations* is also considered a site visit by that accredited verification body for the purposes of the regulations and this standard.

24(13) The regulated emitter must ensure that site visits include:

(a) for the purposes of clause 24(11)(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 24(11)(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 clauses 24(11)(b) to 24(11)(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 24(11)(e), the newly added individual facility with total regulated emissions of 5,000 tonnes CO_2e or more.

24(14) Notwithstanding Subsections 24(11) and 24(13), 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.

24(15) For the purposes of Subsection 24(11) the verification team conducting a verification may undertake a virtual site visit for an individual facility if:

(a) the verification is not with respect to a baseline submission for the facility;

(b) an in-person site visit has previously been undertaken at the individual facility as part of a verification for the aggregate facility;

(c) the accredited verification body conducting the verification also conducted the most recent verification for the facility; and

(d) the virtual site visit enables the verification team to complete the verification to a reasonable level of assurance.

24(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.

25. Audits and Inspections

25 The Minister may perform an audit or inspection on an aggregate facility in accordance with Section 67 of the Act.

Part 2 – Aggregate Facilities with Annual Emissions Below 15,000 Tonnes CO_2e

26.Application of Part 2

26(1) If an aggregate facility had annual emissions below 15,000 tonnes CO_2e in its baseline year, Part 2 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 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 15,000 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 15,000 tonnes CO_2e in each of the three most recent compliance years.

26(3) For the purposes of Subsections 26(1) and 26(2), the operator of an aggregate facility shall not include the emissions from drilling operations as part of the aggregate facility's emissions.

26(4) For the purposes of clause 26(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 clause 26(2)(b).

27.Updating Facility Information

27(1) A regulated emitter must provide updated facility information quarterly on January 1, April 1, July 1 and October 1 of each year that an aggregate facility is registered under the regulations and this standard.

27(2) If, in a given year, January 1, April 1, July 1 or October 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 October 1 of that year.

27(3) If, in a given year, through addition or removal of individual facilities, the direct 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 27(1) or 27(2).

27(4) The updated facility information must include:

(a) individual facilities that have been added to the aggregate facility, including newly drilled wells if a facility chooses to report drilling emissions, and for those facilities:

  (i) the production class for each individual facility;

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

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

  (iv) for newly drilled wells, a unique well identifier such as a well license number or a Canadian well identifier, if applicable;

(b) if requested by the Minister, 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;

(c) if requested by the Minister, 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;

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

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

27(5) The updated facility information must not include individual facilities that have been abandoned or are no longer operated by the operator.

27(6) 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 who owns or operates an aggregate facility subject to Part 2 of this standard shall use a default emission factor calculation method for the purposes of determining emissions from stationary fuel combustion and flare sources within each production class at an aggregate facility.

28(2) For the purposes of Subsection 28(1), when determining emissions from stationary fuel combustion and flare 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 4 of Appendix C with fuel or flare volumes that are reported to the registry; and

(b) the CO_2 equivalent emission factors listed in Table 5 of Appendix C with fuel volumes that are not reported to the registry.

28(3) When determining emissions from on-site transportation and industrial product use sources, a regulated emitter who owns or operates an aggregate facility subject to Part 2 of this standard shall select an emissions quantification methodology that is consistent with Canada's Greenhouse Gas Quantification Requirements for calculating emissions.

28(4) If an aggregate facility previously subject to Part 3 of this standard becomes subject to Part 2 of this standard, the regulated emitter may continue to use the emissions quantification methodology established under Part 3 for that aggregate facility.

28(5) If a regulated emitter previously subject to Part 3 of this standard adopts the emissions quantification methodology determined in Subsections 28(1) and 28(2) for an aggregate facility that it owns or operates, the baseline emissions intensity for that aggregate facility shall be re-established to reflect the adopted emissions quantification methodology.

Part 3 – Aggregate Facilities with Annual Emissions of 15,000 Tonnes CO_2e or More

29.Application of Part 3

29(1) If an aggregate facility had annual emissions of 15,000 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.

29(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 15,000 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 15,000 tonnes CO_2e or more in each of the three most recent compliance years.

29(3) For the purposes of Subsections 29(1) and 29(2), the operator of an aggregate facility shall not include the emissions from drilling operations as part of the aggregate facility's emissions.

29(4) For the purposes of clause 29(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 clause 29(2)(b).

30.Updating Facility Information

30(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 that have been added to the aggregate facility, including newly drilled wells if a facility chooses to report drilling emissions, and for those facilities:

(i) the production class for each individual facility;

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

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

(iv) for newly drilled wells, a unique well identifier such as a well license number or a Canadian well identifier, if applicable;

(b) if requested by the Minister, 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;

(c) if requested by the Minister, 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;

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

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

30(2) The updated facility information must not include individual facilities that have been abandoned or are no longer operated by the operator.

30(3) A regulated emitter may be required to provide a boundary map for each individual facility within an aggregate facility.

31.Emissions Quantification Methodology

31(1) A regulated emitter shall select, for an aggregate facility that is subject to Part 3 of this standard, 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 the applicable regulated source categories within each production class at an aggregate facility.

31(2) A regulated emitter shall not use the production class emission factors listed in Appendix C to calculate emissions for an aggregate facility that is subject to Part 3 of this standard.

31(3) If an aggregate facility previously subject to Part 2 of this standard becomes subject to Part 3 of this standard, the regulated emitter may not continue to use the emissions quantification methodology established under Part 2 for that aggregate facility.

31(4) The baseline emissions intensity for any aggregate facility that is subject to Subsection 31(3) shall be re-established to reflect the emissions quantification methodology adopted in accordance with Subsection 31(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

Greenhouse Gas Species	Chemical Formula	100 Year Global Warming Potential from AR5[1]
Carbon Dioxide	CO_2	1
Methane	CH_4	28
Nitrous Oxide	N_2O	265
Sulphur Hexafluoride	SF_6	23,500
Perfluoromethane	CF_4	6,630
Perfluoroethane	C_2F_6	11,100
Perfluropropane	C_3F_8	8,900
Perfluorobutane	C_4F_{10}	9,200
Perfluorocyclobutane	c-C_4F_8	9,540
Perfluoropentane	C_5F_{12}	8,550
Perfluorohexane	C_6F_{14}	7,910
HFC-23	CHF_3	12,400
HFC-32	CH_2F_2	677
HFC-41	CH_3F	116
HFC-43-10mee	$CF_3CHFCHFCF_2CF_3$	1,650
HFC-125	CHF_2CF_3	3,170
HFC-134	CHF_2CHF_2	1,120
HFC-134a	CH_2FCF_3	1,300
HFC-143	CH_2FCHF_2	328
HFC-143a	CH_3CF_3	4,800
HFC-152a	CH_3CHF_2	138
HFC-227ea	CF_3CHFCF_3	3,350
HFC-236fa	$CF_3CH_2CF_3$	8,060
HFC-245ca	$CH_2FCF_2CHF_2$	716

[1] Global warming potentials taken from IPCC's Fifth Assessment Report. See Table 8.A.1 in https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_Chapter08_FINAL.pdf

Appendix C: Emission Factors

Table 4: Production Class Emissions Factors		
Production Class	**Combusted Gas Emissions Factor *** **(tonnes $CO_2e/10^3m^3$)**	**Flared Gas Emissions Factor ** (tonnes $CO_2e/10^3m^3$)**
Lloydminster heavy and non-heavy	1.83	2.63
Kindersley heavy	2.00	2.77
Kindersley non-heavy	2.30	2.99
Swift Current heavy and non-heavy	2.11	2.79
Estevan heavy and non-heavy	2.88	3.28

*For use in quantifying emissions from a) stationary fuel combustion sources, and b) flaring or incinerator sources with conversion efficiency of greater than or equal to 99 per cent.

** For use in quantifying emissions from flaring or incinerator sources with conversion efficiency of less than 99 per cent.

Table 5: CO_2e Emission Factors	
Fuel	**(Tonnes CO_2e/kl)**
Butane	1.7760
Diesel*	2.6350
Ethane	1.0150
Gasoline**	2.1410
Propane	1.5440

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

**Gasoline emission factor has been adjusted to account for 7.5 per cent 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 5, please contact the Ministry of Environment.

Appendix D: Regulated Source Categories

Table 6: Regulated Source Categories Included in Direct Emissions									
Greenhouse Gas	Stationary Fuel Combustion Emissions	Industrial Process Emissions	Industrial Product Use Emissions	Venting Emissions	Flaring Emissions	Leakage Emissions	On-site Transportation Emissions	Waste Emissions	Waste-water emissions
Carbon dioxide[1]	*	N/A	N/A	N/A	*	N/A	*	N/A	N/A
Methane[2]	*	N/A	N/A	N/A	*	N/A	*	N/A	N/A
Nitrous oxide[3]	*	N/A	N/A	N/A	*	N/A	*	N/A	N/A
Sulphur hexafluoride	N/A	N/A	*	N/A	N/A	N/A	N/A	N/A	N/A
Hydrofluorocarbons (HFC)	N/A	N/A	By species	N/A	N/A	N/A	N/A	N/A	N/A
Perfluorocarbons (PFC)	N/A	N/A	By species	N/A	N/A	N/A	N/A	N/A	N/A

1 excluding CO_2 emissions from biomass combustion, decomposition and fermentation.
2 excluding CH_4 emissions from biomass combustion for the purpose of generating useful heat or work.
3 excluding N_2O emissions from biomass combustion for the purpose of generating useful heat or work.