



## Climate Change (Stationary Energy and Industrial Processes) Amendment Regulations 2010

Anand Satyanand, Governor-General

### Order in Council

At Wellington this 23rd day of September 2010

Present:

His Excellency the Governor-General in Council

Pursuant to section 163 of the Climate Change Response Act 2002, His Excellency the Governor-General, acting on the advice and with the consent of the Executive Council and on the recommendation of the Minister for Climate Change Issues (having had regard to the matter specified in section 163(5) of that Act), makes the following regulations.

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## Regulations

### 1 Title

These regulations are the Climate Change (Stationary Energy and Industrial Processes) Amendment Regulations 2010.

### 2 Commencement

- (1) Regulations 4, 5, 11, and 18 come into force on 1 January 2011.
- (2) The rest of these regulations are deemed to have come into force on 1 January 2010.

### 3 Principal regulations amended

These regulations amend the Climate Change (Stationary Energy and Industrial Processes) Regulations 2009.

### 4 Interpretation

- (1) Regulation 3(1) is amended by inserting the following definitions in their appropriate alphabetical order:

**ASHRAE designation** means the designation of a refrigerant mix from Standard 34–2007 *Designation and Safety Classification of Refrigerants*, published in 2007 by the American National Standards Institute/American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc

**charge**, in relation to sulphur hexafluoride or a class of hydrofluorocarbons or perfluorocarbons contained in pre-charged equipment or motor vehicles, means the amount of the gas or class of gas contained in the equipment or motor vehicles

**excluded goods** means,—

- (a) for the purposes of regulations 44E and 44F, any goods containing sulphur hexafluoride in respect of which the person is exempt from being a participant under clause 14 of the Climate Change (General Exemptions) Order 2009; and
- (b) for the purposes of regulations 44K to 44N,—
  - (i) any goods containing hydrofluorocarbons or perfluorocarbons in respect of which the person is exempt from being a participant under clause 15(1) of the Climate Change (General Exemptions) Order 2009; and
  - (ii) any household goods, or other effects of a passenger of a ship or aircraft (accompanied or unaccompanied) that—
    - (A) contain hydrofluorocarbons or perfluorocarbons; and
    - (B) are not intended for gift, sale, or exchange; and

- (iii) any goods containing hydrofluorocarbons or perfluorocarbons that have medical uses necessary for human health, including metered dose inhalers

**GWP** means global warming potential

**motor vehicle** has the same meaning as in section 2(1) of the Land Transport Act 1998

**pre-charged equipment**—

- (a) means any refrigeration or air conditioning equipment or other goods—
  - (i) that contain a synthetic greenhouse gas; and
  - (ii) in which a synthetic greenhouse gas assists the functionality; and
- (b) includes any aircraft or ship in which a synthetic greenhouse gas is contained in any refrigeration, air conditioning, or other system integrated into or powered by the aircraft or ship; but
- (c) does not include any motor vehicle in which a synthetic greenhouse gas is contained in any refrigeration, air conditioning, or other system integrated into or powered by the motor vehicle

**synthetic greenhouse gas** means—

- (a) any hydrofluorocarbon (HFC); or
- (b) any perfluorocarbon (PFC); or
- (c) sulphur hexafluoride (SF<sub>6</sub>)

**type**, in relation to pre-charged equipment or a motor vehicle, means a model or type of pre-charged equipment or motor vehicle that has the same characteristics, including (but not limited to) the amount and composition of synthetic greenhouse gases it contains

- (2) Regulation 3(1) is amended by revoking the definition of **category** and substituting the following definition:

**category**,—

- (a) in relation to coal, means,—
  - (i) if there is no unique emissions factor for fugitive coal seam gas in force in relation to the coal, a category specified in Part A of table 3 of Schedule 2; or
  - (ii) if a unique emissions factor for fugitive coal seam gas is in force in relation to the coal, the category of coal to which the unique emissions factor relates; and
- (b) in relation to motor vehicles, means a category specified in table 3 of Schedule 2A

## 5 Meaning of class

Regulation 4 is amended by adding the following paragraphs:

- (h) in relation to hydrofluorocarbons or perfluorocarbons, means—
  - (i) a refrigerant gas or mix described by reference to its ASHRAE designation and listed in the first column of table 2 of Schedule 2A; or
  - (ii) any other mix of constituents that—
    - (A) is not listed in the first column of table 2 of Schedule 2A; but
    - (B) contains a hydrofluorocarbon or perfluorocarbon listed in table 1 of Schedule 2A; or
  - (iii) if it is not mixed with other constituents, any hydrofluorocarbon or perfluorocarbon listed in table 1 of Schedule 2A:
- (i) in relation to synthetic greenhouse gases means—
  - (i) sulphur hexafluoride; or
  - (ii) a class of hydrofluorocarbons or perfluorocarbons specified in paragraph (h); or
  - (iii) a mix of sulphur hexafluoride and a class of hydrofluorocarbons or perfluorocarbons specified in paragraph (h).

#### **6 Method of calculating emissions from importing coal**

Regulation 8 is amended by inserting the following subclause after subclause (1):

- (1A) For the purposes of subclause (1), a person must include a stockpile adjustment if the emissions return is the final emissions return relating to the period ending on the date on which the name of the person is removed from the register of participants in respect of the activity of importing coal.

#### **7 Collection and recording of information for purpose of calculating emissions from mining coal**

Regulation 10(1)(c) is amended by omitting “by the person”.

#### **8 Method of calculating emissions from mining coal**

Item B of regulation 11(1) is amended by omitting “by the person”.

#### **9 Collection and recording of information for purpose of calculating emissions from natural gas mined other than for export**

Regulation 16 is amended by inserting the following subclause after subclause (2):

- (2A) If, and to the extent that, the person combusts, flares, or vents mined natural gas for which there is no point of sale, subclause (1)(c) or (d) or (2)(a) applies as if “before the point of sale” were omitted.

**10 Continuous emissions monitoring method for calculating emissions from combusting used oil, waste oil, used tyres, or waste**

Regulation 24(1) is amended by revoking paragraph (e) and substituting the following paragraph:

- (e) estimate total emissions for the year of each of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O in accordance with the following formula:

$$E_{\text{gastype year}} = \text{mr}_{\text{gastype hour}} \times t$$

where—

$E_{\text{gastype year}}$  is the emissions for each of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O emitted for the year in tonnes

$\text{mr}_{\text{gastype hour}}$  is the representative rate of each of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O per hour for each hour of the year, as determined under paragraph (d)

$t$  is the number of hours that the equipment has operated in the year.

**11 New headings and regulations 44A to 44R inserted**

The following headings and regulations are inserted after regulation 44:

*Importing sulphur hexafluoride*

**44A Application of regulations 44B to 44F**

A person must comply with regulations 44B to 44F if the person, in any year, is a participant under section 54(1)(a) of the Act in respect of the activity in sub-part 2 of Part 4 of Schedule 3 of the Act of importing sulphur hexafluoride, including sulphur hexafluoride contained in goods.

**44B Collection and recording of information for purpose of calculating emissions from importing sulphur hexafluoride**

- (1) Information must be collected and recorded and emissions must be calculated in respect of imported sulphur hexafluoride—
- (a) in accordance with regulations 44C and 44D, if the sulphur hexafluoride is imported in bulk in the year;
  - (b) in accordance with regulations 44E and 44F, if the sulphur hexafluoride is imported in pre-charged equipment.
- (2) An emissions return for the activity must record the person's total emissions in the period covered by the return, calculated by adding together the emissions for—
- (a) sulphur hexafluoride imported in bulk by the person in the period, as calculated under regulation 44D; and
  - (b) sulphur hexafluoride imported in pre-charged equipment by the person in the period, as calculated under regulation 44F.

**44C Collection of information for purpose of calculating emissions from importing bulk sulphur hexafluoride**

The person must collect and record the total number of kilograms of sulphur hexafluoride imported in bulk by the person in the year.

**44D Method of calculating emissions from importing bulk sulphur hexafluoride**

- (1) Emissions in relation to sulphur hexafluoride imported in bulk by the person in the year must be calculated in accordance with the following formula:

$$E = A \times \frac{\text{GWP}}{1000}$$

where—

A is the total number of kilograms of sulphur hexafluoride imported in bulk by the person in the year, as recorded under regulation 44C

E is the emissions in tonnes for sulphur hexafluoride imported in bulk

GWP is the GWP figure for sulphur hexafluoride in table 1 of Schedule 2A.

- (2) If a person who is required to comply with this regulation is required to submit an emissions return for a period other than a year, this regulation applies with any necessary modifications.

**44E Collection of information for purpose of calculating emissions from importing sulphur hexafluoride in pre-charged equipment**

The following information must be collected and recorded in relation to sulphur hexafluoride imported in pre-charged equipment in the year:

- (a) the total number of units of each type of pre-charged equipment containing sulphur hexafluoride imported by the person in the year that were not excluded goods, as recorded at the customs point; and
- (b) the sulphur hexafluoride charge in grams for the type of pre-charged equipment.

**44F Method of calculating emissions from importing sulphur hexafluoride in pre-charged equipment**

- (1) Emissions in relation to sulphur hexafluoride imported in pre-charged equipment by the person in the year must be calculated in accordance with the following formula:

$$E = \Sigma (A \times B \times \frac{\text{GWP}}{1000})$$

where—

A is, for each type of pre-charged equipment containing sulphur hexafluoride imported by the person in the year, the total number of units of the



type of pre-charged equipment that were not excluded goods, as recorded under regulation 44E(a)

B is the sulphur hexafluoride charge in grams for the type of pre-charged equipment, as recorded under regulation 44E(b)

E is the emissions in tonnes for sulphur hexafluoride imported in pre-charged equipment

GWP is the GWP figure for sulphur hexafluoride in table 1 of Schedule 2A.

- (2) If a person who is required to comply with this regulation is required to submit an emissions return for a period other than a year, this regulation applies with any necessary modifications.

*Importing hydrofluorocarbons or perfluorocarbons*

**44G Application of regulations 44H to 44N**

A person must comply with regulations 44H to 44N if the person, in any year, is a participant in respect of the activity in subpart 2 of Part 4 of Schedule 3 of the Act of importing hydrofluorocarbons or perfluorocarbons, including hydrofluorocarbons or perfluorocarbons contained in goods.

**44H Collection and recording of information for purpose of calculating emissions from importing hydrofluorocarbons or perfluorocarbons**

- (1) Information must be collected and recorded and emissions must be calculated in respect of imported hydrofluorocarbons or perfluorocarbons—
- (a) in accordance with regulations 44I and 44J, if the hydrofluorocarbons or perfluorocarbons are imported in bulk in the year; and
  - (b) in accordance with regulations 44K and 44L, if the hydrofluorocarbons or perfluorocarbons are imported in pre-charged equipment in the year; and
  - (c) in accordance with regulations 44M and 44N, if the hydrofluorocarbons or perfluorocarbons are imported in any refrigeration, air conditioning, or other system integrated into or powered by motor vehicles in the year.
- (2) An emissions return for the activity must record the person's total emissions for the period covered by the return, calculated by adding together the emissions—
- (a) for each class of hydrofluorocarbons or perfluorocarbons—
    - (i) imported in bulk by the person in the period, as calculated under regulation 44J; and
    - (ii) imported in pre-charged equipment by the person in the year, as calculated under regulation 44L; and
  - (b) for motor vehicles imported by the person in the period, as determined under regulation 44N.

**44I Collection of information for purpose of calculating emissions from importing bulk hydrofluorocarbons or perfluorocarbons**

The person must collect and record—

- (a) the constituents of each class of hydrofluorocarbons or perfluorocarbons imported in bulk by the person in the year; and
- (b) the total number of kilograms of each class of hydrofluorocarbons or perfluorocarbons imported in bulk by the person in the year, as recorded at the customs point.

**44J Method of calculating emissions from importing bulk hydrofluorocarbons or perfluorocarbons**

- (1) Emissions in relation to each class of hydrofluorocarbons or perfluorocarbons imported in bulk by the person in the year must be calculated in accordance with the following formula:

$$E = A \times \frac{GW}{P} \times \frac{1}{1000}$$

where—

A is the total number of kilograms of the class of hydrofluorocarbons or perfluorocarbons imported in bulk in the year, as recorded under regulation 44I(b)

E is the emissions in tonnes for the class of hydrofluorocarbons or perfluorocarbons imported in bulk

GWP is, for a class of hydrofluorocarbons or perfluorocarbons—

- (a) listed in the first column of table 2 of Schedule 2A, the GWP figure for the class specified in the right-hand column of the table; and
  - (b) not listed in table 2 of Schedule 2A and that contains more than 1 hydrofluorocarbon or perfluorocarbon, the GWP figure determined under regulation 44R; and
  - (c) that contains a single hydrofluorocarbon or perfluorocarbon, the GWP figure for the hydrofluorocarbon or perfluorocarbon in table 1 of Schedule 2A.
- (2) If a person who is required to comply with this regulation is required to submit an emissions return for a period other than a year, this regulation applies with any necessary modifications.

**44K Collection of information for purpose of calculating emissions from importing hydrofluorocarbons or perfluorocarbons in pre-charged equipment**

The following information must be collected and recorded in relation to each class of hydrofluorocarbons or perfluorocarbons imported in pre-charged equipment in the year:

- (a) the constituents of the class of hydrofluorocarbons or perfluorocarbons; and
- (b) the total number of units of each type of pre-charged equipment containing the class of hydrofluorocarbons or perfluorocarbons imported by the person in the year that were not excluded goods, as recorded at the customs point; and
- (c) the hydrofluorocarbons or perfluorocarbons charge in grams for the type of pre-charged equipment.

**44L Method of calculating emissions from importing hydrofluorocarbons or perfluorocarbons in pre-charged equipment**

- (1) Emissions in relation to each class of hydrofluorocarbons or perfluorocarbons imported in pre-charged equipment by the person in the year must be calculated in accordance with the following formula:

$$E = \Sigma (A \times B \times \frac{\text{GWP}}{1\,000\,000})$$

where—

A is, for each type of pre-charged equipment containing the class of hydrofluorocarbons or perfluorocarbons imported by the person in the year, the total number of units of the type of pre-charged equipment that were not excluded goods, as recorded under regulation 44K(b)

B is the hydrofluorocarbons or perfluorocarbons charge in grams for the type of pre-charged equipment, as recorded under regulation 44K(c)

E is the emissions in tonnes for the class of hydrofluorocarbons or perfluorocarbons imported in pre-charged equipment

GWP is, for a class of hydrofluorocarbons or perfluorocarbons—

- (a) listed in the first column of table 2 of Schedule 2A, the GWP figure for the class specified in the right-hand column of the table;
- (b) not listed in table 2 of Schedule 2A and that contains more than 1 hydrofluorocarbon or perfluorocarbon, the GWP figure determined under regulation 44R; and
- (c) that contains a single hydrofluorocarbon or perfluorocarbon, the GWP figure for the hydrofluorocarbon or perfluorocarbon in table 1 of Schedule 2A.

- (2) If a person who is required to comply with this regulation is required to submit an emissions return for a period other than a year, this regulation applies with any necessary modifications.

**44M Collection of information for purpose of calculating emissions from importing hydrofluorocarbons or perfluorocarbons in motor vehicles**

- (1) If the person imports hydrofluorocarbons or perfluorocarbons contained in any refrigeration, air conditioning, or other system integrated into or powered by motor vehicles (other than excluded goods) in the year, the person may elect whether to collect information and calculate emissions in respect of the motor vehicles under—
- (a) subclause (2) and section 44N(1) (the **actual charge method**); or
  - (b) subclause (3) and section 44N(2) (the **default charge method**); or
  - (c) a combination of those provisions (that is, some vehicles in accordance with the actual charge method and others in accordance with the default charge method).
- (2) The person must collect and record the following information in relation to each class of hydrofluorocarbons or perfluorocarbons contained in any refrigeration, air conditioning, or other system integrated into or powered by the motor vehicles in respect of which the person wishes to calculate emissions in accordance with the actual charge method:
- (a) the constituents of the class of hydrofluorocarbons or perfluorocarbons; and
  - (b) the total number of each type of motor vehicle containing the class of hydrofluorocarbons or perfluorocarbons imported by the person in the year that were not excluded goods, as recorded at the customs point; and
  - (c) the hydrofluorocarbons or perfluorocarbons charge in grams for the type of motor vehicle.
- (3) The person must collect and record, for each category of motor vehicle in respect of which the person wishes to use the default charge method to calculate emissions from hydrofluorocarbons or perfluorocarbons in any refrigeration, air conditioning, or other systems integrated into or powered by the motor vehicles, the total number of motor vehicles in that category imported by the person in the year that were not excluded goods, as recorded at the customs point.

**44N Method of calculating emissions from importing hydrofluorocarbons or perfluorocarbons in motor vehicles**

- (1) A person who wishes to use the actual charge method to calculate emissions from any motor vehicles imported in the year must calculate emissions in relation to each class of hydrofluorocarbons or perfluorocarbons imported in those vehicles using the following formula:

$$E_1 = \Sigma (A \times B \times \frac{\text{GWP}}{1\,000\,000})$$

where—

A is, for each type of motor vehicle containing the class of hydrofluorocarbons or perfluorocarbons imported by the person in the year, the total number of units of the type of motor vehicle imported that were not excluded goods, as recorded under regulation 44M(2)(b)

B is the hydrofluorocarbons or perfluorocarbons charge in grams for the type of motor vehicle, as recorded under regulation 44M(2)(c)

$E_1$  is the emissions in tonnes for the class of hydrofluorocarbons or perfluorocarbons

GWP is, for a class of hydrofluorocarbons or perfluorocarbons—

- (a) listed in the first column of table 2 of Schedule 2A, the GWP figure for the class specified in the right-hand column of the table:
- (b) not listed in table 2 of Schedule 2A and that contains more than 1 hydrofluorocarbon or perfluorocarbon, the GWP figure determined under regulation 44R:
- (c) that contains a single hydrofluorocarbon or perfluorocarbon, the GWP figure for the hydrofluorocarbon or perfluorocarbon in table 1 of Schedule 2A.

- (2) A person who wishes to use the default charge method to calculate emissions from any motor vehicles imported in the year must calculate emissions in relation to each category of those motor vehicles imported, using the following formula:

$$E_2 = A \times B \times \frac{\text{GWP}}{1\,000\,000}$$

where—

A is the total number of motor vehicles in that category that the person imported in the year that were not excluded goods, as recorded under regulation 44M(3)

B is the default charge for the category from table 3 of Schedule 2A

$E_2$  is the emissions in tonnes for the category of motor vehicles

GWP is the GWP figure for HFC-134a in table 1 of Schedule 2A.

- (3) The person must calculate total emissions in relation to hydrofluorocarbons or perfluorocarbons in motor vehicles imported by the person in the year using the following formula:

$$\text{TE} = \Sigma(E_1) + \Sigma(E_2)$$

where—

- $E_1$  is the emissions in tonnes for each class of hydrofluorocarbons or perfluorocarbons in respect of which the person has calculated emissions using the actual charge method, as calculated under subclause (1)
- $E_2$  is the emissions in tonnes for each category of motor vehicle in respect of which the person has calculated emissions using the default charge method, as calculated under subclause (2)
- TE is the total emissions in tonnes for hydrofluorocarbons or perfluorocarbons in motor vehicles imported by the person in the year.
- (4) The emissions that must be included in the person's emissions return for the year is the greater of—
- (a) the figure determined under the following formula:
- $$TE - 100$$
- where—
- TE is the person's total emissions for motor vehicles imported by the person in the year as calculated under subclause (3); and
- 100 is the tonnes of emissions from motor vehicles for which the person is entitled to an exemption under clause 15(3) of the Climate Change (General Exemptions) Order 2009; and
- (b) zero.
- (5) If a person who is required to comply with this regulation is required to submit an emissions return for a period other than a year, this regulation applies with any necessary modifications.

#### *Manufacturing synthetic greenhouse gases*

#### **44O Application of regulations 44P and 44Q**

A person must comply with regulations 44P and 44Q if the person, in any year, is a participant under section 54(1)(a) of the Act in respect of the activity in subpart 2 of Part 4 of Schedule 3 of the Act of manufacturing sulphur hexafluoride, hydrofluorocarbons, or perfluorocarbons, other than through producing aluminium resulting in the consumption of anodes or the production of anode effects.

#### **44P Collection of information for purpose of calculating emissions from manufacturing synthetic greenhouse gases**

The person must collect and record the following information in relation to each class of synthetic greenhouse gas and each facility at which synthetic greenhouse gases are manufactured by the person in the year (whether the gas is manufactured in bulk or as a by-product of another manufacturing process, other than aluminium production):

- (a) the constituents of the class of synthetic greenhouse gas; and

- (b) the total number of kilograms of the class of synthetic greenhouse gas manufactured at the facility in the year; and
- (c) the number of kilograms of the class of synthetic greenhouse gas emitted during manufacturing at the facility in the year; and
- (d) the number of kilograms of the class of synthetic greenhouse gas emitted during handling at the facility in the year.

**44Q Method of calculating emissions from manufacturing synthetic greenhouse gases**

- (1) Emissions in relation to each class of synthetic greenhouse gas manufactured by the person in the year at each facility used by the person to manufacture a synthetic greenhouse gas (whether in bulk or as a by-product of another manufacturing process) must be calculated in accordance with the following formula:

$$E = (A + B + C) \times \frac{\text{GW}}{P} \times \frac{1}{1000}$$

where—

- A is the total number of kilograms of the class of synthetic greenhouse gas manufactured by the person in the year at the facility, as recorded under regulation 44P(b)
- B is the total number of kilograms of the class of synthetic greenhouse gas emitted during manufacturing in the year at the facility, as recorded under regulation 44P(c)
- C is the total number of kilograms of the class of synthetic greenhouse gas emitted during handling in the year at the facility, as recorded under regulation 44P(d)
- E is the emissions in tonnes for the class of synthetic greenhouse gas manufactured at the facility

GWP is, for a class of synthetic greenhouse gas—

- (a) listed in the first column of table 2 of Schedule 2A, the GWP figure for the class specified in the right-hand column of the table;
  - (b) not listed in table 2 of Schedule 2A and that contains more than 1 synthetic greenhouse gas, the GWP figure determined under regulation 44R; and
  - (c) that contains a single synthetic greenhouse gas, the GWP figure for the synthetic greenhouse gas in table 1 of Schedule 2A.
- (2) An emissions return submitted by a person required to comply with this regulation must record the person's total emissions from the manufacturing synthetic greenhouse gases activity in the year, calculated by adding together the emis-

sions for each class of synthetic greenhouse gas manufactured at each facility in the year, as calculated under subclause (1).

- (3) If a person who is required to comply with this regulation is required to submit an emissions return for a period other than a year, this regulation applies with any necessary modifications.

#### *Determination of GWP*

#### **44R Determination of GWP figure for class of synthetic greenhouse gas**

If a person is required to use a GWP figure for a class of synthetic greenhouse gas that contains more than 1 synthetic greenhouse gas and the GWP figure for the class of synthetic greenhouse gas is not listed in table 2 of Schedule 2A, then the GWP figure for the class of synthetic greenhouse gas must be calculated in accordance with the following formula:

$$\text{GWP} = \Sigma (A \times B)$$

where—

- A is, for each synthetic greenhouse gas specified in table 1 of Schedule 2A that is contained in the class of synthetic greenhouse gas, the GWP figure specified in that table
- B is, for the relevant synthetic greenhouse gas, the percentage by mass of the synthetic greenhouse gas in the class of synthetic greenhouse gas
- GWP is the GWP figure for the class, being—
- (a) the product of the equation rounded down to the nearest 10 if the last number of the product is 1, 2, 3, or 4:
  - (b) the product of the equation rounded up to the nearest 10 if the last number of the product is 5, 6, 7, 8, or 9.

#### **12 Method of calculating emissions in relation to purchasing coal**

Regulation 47 is amended by inserting the following subclause after subclause (1):

- (1A) For the purposes of subclause (1), a person must include a stockpile adjustment if the emissions return is the final emissions return relating to the period ending on the date on which the name of the person is removed from the register of participants in respect of the activity of purchasing coal.

#### **13 Collection and recording of information for purpose of calculating emissions from purchasing natural gas**

Regulation 49 is amended by revoking subclause (3) and substituting the following subclauses:

- (3) In addition, for the purposes of the gas storage adjustment under regulation 50(7), the person must also collect and record the following information:



- (a) the total number of terajoules of opt-in natural gas injected in the year into a gas storage facility by or on behalf of the person; and
  - (b) the total number of terajoules of opt-in natural gas extracted in the year from a gas storage facility by or on behalf of the person.
- (4) In this regulation, **gas storage facility** means an underground feature or formation used for storing mined natural gas transferred from its original location for subsequent recovery, whether or not the underground feature or formation also contains natural gas that has not been mined.

#### 14 Method of calculating emissions in relation to purchasing natural gas

- (1) Regulation 50(7) is amended by omitting “ $TE = \Sigma(EP) - \Sigma(EE) - S$ ” and substituting “ $TE = \Sigma(EP) - \Sigma(EE) - S \times EF_{\text{avge}}$ ”.
- (2) Regulation 50(7) is amended by adding the following item in its appropriate alphabetical order:

$EF_{\text{avge}}$  is the national average emissions factor for natural gas from table 10 of Schedule 2

- (3) Regulation 50(7) is amended by omitting item S and substituting the following item:

S is the figure calculated in accordance with Schedule 3

#### 15 Schedule 1 amended

- (1) Clause 1 of Schedule 1 is amended by revoking the definition of **base date** and substituting the following definition:

**base date** means the later of the following dates:

- (a) 1 July 2010;
- (b) the date from which a participants’ current registration takes effect under section 57 of the Act

- (2) The definition of **base stockpile** in clause 1 of Schedule 1 is amended by omitting “of coal”.
- (3) Paragraph (a) of the definition of **first stockpile adjustment year** in clause 1 of Schedule 1 is amended by omitting “of coal”.
- (4) Clause 1 of Schedule 1 is amended by inserting the following definition in its appropriate alphabetical order:

**stockpile** means an amount of coal owned by a person as determined by—

- (a) the person’s accounting and business records; or
- (b) physical measurement

- (5) Clause 3 of Schedule 1 is amended by inserting “or is required” after “wishes” in each place where it appears.
- (6) Clause 3 of Schedule 1 is amended by adding the following subclause:

- (4) For the purposes of these regulations, a person may determine the amount of coal added to or removed from a stockpile using—
- (a) the person’s accounting and business records; or
  - (b) physical measurement.

**16 Schedule 2 amended**

- (1) Part A of table 6 of Schedule 2 is amended by omitting the item relating to Wairakei G14.
- (2) Part A of table 6 of Schedule 2 is amended by omitting “Wairakei A and B” and substituting “Wairakei station site”.
- (3) Schedule 2 is amended by revoking table 7 and substituting the table 7 set out in Schedule 1 of these regulations.
- (4) Schedule 2 is amended by revoking table 10 and substituting the table 10 set out in Schedule 2 of these regulations.

**17 New Schedule 3 added**

Schedule 3 as set out in Schedule 3 of these regulations is added.

**18 New Schedule 2A inserted**

Schedule 2A as set out in Schedule 4 of these regulations is inserted after Schedule 2.

**Schedule 1**  
**New table 7 substituted in Schedule 2**

r 16

**Table 7**  
**Combusting used oil, waste oil, used tyres, and waste**

<b>Class</b>	<b>Emissions factor</b>	<b>Unit</b>
Used or waste oil	70.71	tCO <sub>2</sub> e/TJ
Used tyres	136.27	tCO <sub>2</sub> e/TJ
Municipal waste—biomass	1.78	tCO <sub>2</sub> e/TJ
Municipal waste—non-biomass	88.02	tCO <sub>2</sub> e/TJ

**Schedule 2**  
**New table 10 substituted in Schedule 2**

r 16

**Table 10**  
**Mining or purchasing natural gas**

<b>Class</b>	<b>Emissions factor</b>	<b>Unit</b>
Kaimiro	55.95	tCO <sub>2</sub> e/TJ
Kapuni	53.01	tCO <sub>2</sub> e/TJ
Kapuni LTS	84.15	tCO <sub>2</sub> e/TJ
Mangahewa	54.11	tCO <sub>2</sub> e/TJ
Maui	52.85	tCO <sub>2</sub> e/TJ
McKee	52.66	tCO <sub>2</sub> e/TJ
Ngatoro	55.72	tCO <sub>2</sub> e/TJ
Pohokura	54.03	tCO <sub>2</sub> e/TJ
Rimu/Kauri	51.96	tCO <sub>2</sub> e/TJ
TAWN	52.78	tCO <sub>2</sub> e/TJ
Turangi	54.17	tCO <sub>2</sub> e/TJ
National average (2009 calendar year)	53.48	tCO <sub>2</sub> e/TJ

**Schedule 3**  
**New Schedule 3 added**

r 17

**Schedule 3**  
**Storage adjustments for activities of purchasing natural gas**

r 50(7)

**1 Interpretation**

In this schedule, unless the context otherwise requires,—

**base date** means the later of the following dates:

- (a) 1 July 2010; or
- (b) the date from which a participant's current registration takes effect under section 57 of the Act

**base gas**—

- (a) means natural gas (net of any extractions) injected into a facility, by or on behalf of the person, before the base date; but
- (b) does not include any natural gas in the facility that has not been mined.

**2 Calculating S**

- (1) For the purposes of regulation 50(7), S must be calculated in accordance with this clause.
- (2) In a year when—
  - (a) there are no extractions from a gas storage facility; or
  - (b) cumulative extractions from the gas storage facility by or on behalf of the person are less than or equal to base gas (that is,  $\Sigma H \leq B$ ), then—
 
$$S = G$$
- (3) In the first year that the cumulative extractions from the gas storage facility by or on behalf of the person are greater than base gas (that is,  $\Sigma H > B$ ) then—
 
$$S = G - (\Sigma H - B)$$
- (4) In any subsequent year, after the year in which subclause (3) applies, then—
 
$$S = G - H$$
- (5) In the final emissions return before removal of the person from the register under section 58 or 59 of the Act, then—
 
$$S = -1 \times \Sigma(SY)$$
- (6) In this clause—

B is the total number of terajoules of base gas

- G is the total number of terajoules of opt-in natural gas injected by or on behalf of the person in the year into the gas storage facility as collected under regulation 49(3)(a)
- H is the total number of terajoules of opt-in natural gas extracted by or on behalf of the person in the year from a gas storage facility, as recorded under regulation 49(3)(b)
- SY is the figure for S used by the person to claim a storage adjustment for each year since the base date
- $\Sigma H$  is the sum of H from the base date.

**Schedule 4**  
**New Schedule 2A inserted**

r 18

**Schedule 2A**  
**Figures for synthetic greenhouse gases**

rr 4, 44D, 44F, 44J, 44L, 44N, 44Q, 44R

**Table 1**  
**GWP figures of individual synthetic greenhouse gases**

<b>Gas</b>	<b>GWP figure</b>
<i>Hydrofluorocarbons</i>	
HFC-23	11 700
HFC-32	650
HFC-41	150
HFC-43–10mee	1 300
HFC-125	2 800
HFC-134	1 000
HFC-134a	1 300
HFC-143	300
HFC-143a	3 800
HFC-152a	140
HFC-227ea	2 900
HFC-236fa	6 300
HFC-245ca	560
<i>Perfluorocarbons</i>	
Per fluoromethane – CF <sub>4</sub>	6 500
Per fluoroethane – C <sub>2</sub> F <sub>6</sub>	9 200
Per fluoropropane – C <sub>3</sub> F <sub>8</sub>	7 000
Per fluorobutane – C <sub>4</sub> F <sub>10</sub>	7 000
Per fluorocyclobutane – c-C <sub>4</sub> F <sub>8</sub>	8 700
Per fluoropentane – C <sub>5</sub> F <sub>12</sub>	7 500
Per fluorohexane – C <sub>6</sub> F <sub>14</sub>	7 400
PFC-218	7 000
<i>Sulphur hexafluoride</i>	
SF <sub>6</sub>	23 900

Class	Type of hydrofluorocarbon				Type of perfluorocarbon			GWP figure for class
	HFC-23	HFC-32	HFC-125	HFC-134a	HFC-143a	HFC-152a	Other gas	
GWP	11 700	650	2 800	1 300	3 800	140	0	
R23	100%							
R134a				100%				
R403B: 5% R290, 56% R22, 39% R218								
R404A: 44% R125, 52% R143a, 4% R134a			44%	4%	52%			
R407C: 23% R32, 25% R125, 52% R134a		23%	25%	52%				
R408A: 7% R125, 46% R143a, 47% R22			7%		46%			
R410A: 50% R32, 50% R125		50%	50%					
R413A: 9% R218, 88% R134a, 3% R600a				88%				
R416A: 59% R134a, 39.5% R124, 1.5% R600				59%				
R417A: 46.6% R125, 50% R134a, 3.4% R600			46.6%	50%				
R422A: 85.1% R125, 11.5% R134a, 3.4% R600a			85.1%	11.5%				
R507A: 50% R125, 50% R143a			50%		50%			
								11 700
								1 300
								2 730
								3 260
								1 530
								1 940
								1 730
								1 770
								770
								1 960
								2 530
								3 300

**Table 3**  
**Default charges for categories of motor vehicles**

<b>Category of motor vehicle</b>	<b>Default charge (g)</b>
Cars, vans, and utes	700
Trucks	1 200
Buses and off-engine refrigerated trucks and trailers	2 500

Rebecca Kitteridge,  
Clerk of the Executive Council.

### **Explanatory note**

*This note is not part of the regulations, but is intended to indicate their general effect.*

These regulations, which are deemed to have come into force on 1 January 2010 (except *regulations 4, 5, 11, and 18*, which come into force on 1 January 2011), amend the Climate Change (Stationary Energy and Industrial Processes) Regulations 2009.

The amendments set out the requirements for the collection of information and the calculation of emissions under section 62 of the Climate Change Response Act 2002 in relation to importing sulphur hexafluoride, importing hydrofluorocarbons or perfluorocarbons, and manufacturing synthetic greenhouse gases.

These regulations also amend the requirements for collecting information and calculating emissions for importing, mining, and purchasing coal and mining and purchasing natural gas.



2010/340

**Climate Change (Stationary Energy and Industrial Processes) Amendment Regulations 2010**

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Issued under the authority of the Acts and Regulations Publication Act 1989.  
Date of notification in *Gazette*: 24 September 2010.  
These regulations are administered by the Ministry for the Environment.

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Wellington, New Zealand:

Published under the authority of the New Zealand Government—2010