2010/189

Climate Change (Eligible Industrial Activities) Regulations 2010

Rt Hon Dame Sian Elias, Administrator of the Government

Order in Council

At Wellington this 5th day of July 2010

Present:
The Hon Bill English presiding in Council

Pursuant to section 161A(1) of the Climate Change Response Act 2002, Her Excellency the Administrator of the Government, acting on the recommendation of the Minister for Climate Change Issues (being satisfied as to the matters specified in section 161A(3) of the Climate Change Response Act 2002) and on the advice and with the consent of the Executive Council, makes the following regulations.

Contents

Regulations

1 Title

These regulations are the Climate Change (Eligible Industrial Activities) Regulations 2010.

2 Commencement

These regulations come into force on 8 July 2010.

3 Interpretation

In these regulations, unless the context otherwise requires,—

Act means the Climate Change Response Act 2002

CO_2e means carbon dioxide equivalent

saleable, in relation to a product specified in these regulations,—

(a) means the product is of a quality generally considered by persons who are regularly in the market for that product to be—
  (i) fit for sale; or
  (ii) of commercial value; but

(b) excludes any product that—

(i) is substandard and has been discarded by the person who produced the product:
(ii) is recycled while carrying out an eligible industrial activity:
(iii) is scrapped or lost before it is packaged for sale.

General provisions

4 Prescribed emissions intensity and allocative baselines

(1) The emissions intensity for each eligible industrial activity is set out in column A of the Schedule.

(2) The allocative baseline for each product of each eligible industrial activity is set out in column B of the Schedule.

5 Method of calculating amount of product from eligible industrial activities

(1) An eligible person who, in a year, carries out an eligible industrial activity must use 1 of the following methods for calculating the amount of each product produced by carrying out the activity during that year:
(a) direct measurement:
(b) measurement derived from—
(i) the units of the product sold; and
(ii) the changes in inventory for the product.

(2) If both of the methods specified in subclause (1) are infeasible, then the eligible person must—
(a) select a different method to calculate the amount of each product produced by the activity; and
(b) take all reasonable care to ensure that the selected method is the most accurate method of the different methods that may be available.

(3) For any application for a provisional allocation or a final allocation entitlement in respect of the same year, an eligible person must use the same method to calculate the amount of product produced.

6 Allocation factors for electricity

The allocation factor for electricity used to determine—

(a) the allocative baseline for each product specified in the Schedule is 0.52 tonnes of CO_2e per megawatt hour of electricity:

(b) the emissions intensity of each eligible industrial activity is 1 tonne of CO_2e per megawatt hour of electricity.

Eligible industrial activities

7 Aluminium smelting

(1) Aluminium smelting is an eligible industrial activity.

(2) The product produced by aluminium smelting that must be used as the basis of allocation is the total tonnes of primary aluminium (Al) as weighed after electrolysis but before casting, with a purity equal to or greater than 98%, and that is produced by carrying out the eligible industrial activity.

(3) For the purposes of this regulation and the Schedule, **aluminium smelting** means the physical and chemical transformation of alumina (aluminium oxide, Al_2O_3) into saleable aluminium metal, where the output of this activity is saleable aluminium metal.

(4) Despite anything in these regulations, the allocative baselines for the product specified in subclause (2) that is produced by New Zealand Aluminium Smelters Limited (company number 156735) are as follows:

(a) 2.556, which is the allocative baseline for any 2010 provisional allocation:

(b) 2.556, which is the allocative baseline for any 2010 final allocation:

(c) 2.556, which is the allocative baseline for any 2011 provisional allocation.

8 Production of burnt lime

(1) The production of burnt lime is an eligible industrial activity.

(2) The product produced by the production of burnt lime that must be used as the basis of allocation is the total tonnes of burnt lime that is—

(a) produced by carrying out the eligible industrial activity; and

(b) of saleable quality.

(3) For the purposes of this regulation and the Schedule, the **production of burnt lime** means the physical and chemical transformation through the calcining process of calcium and magnesium sources (eg, calcium carbonate ($CaCO_3$) and magnesium carbonate ($MgCO_3$)) into saleable burnt lime, where the output is burnt lime with a calcium oxide (CaO) or magnesium oxide (MgO) mass content equal to or greater than 60%.

9 Production of carbamide (urea)

(1) The production of carbamide (urea) is an eligible industrial activity.

(2) The product produced by the production of carbamide (urea) that must be used as the basis of allocation is the total tonnes of dry-weight carbamide ($CO(NH_2)_2$, urea) that is—

(a) produced by carrying out the eligible industrial activity; and

(b) of saleable quality.

(3) For the purposes of this regulation and the Schedule, **production of carbamide (urea)** means the chemical transformation of hydrocarbons (or other hydrogen and carbon feedstocks) and nitrogen to produce carbamide solution ($CO(NH_2)_2$(aq), urea), where the concentration of carbamide ($CO(NH_2)_2$, urea) is greater than or equal to 80% with respect to mass, and subsequent production of the following outputs:

(a) carbamide solution ($CO(NH_2)_2$(aq), urea):

(b) saleable granulated, prilled, or other solid forms of carbamide ($CO(NH_2)_2$(s), urea).

10 Production of cartonboard

(1) The production of cartonboard is an eligible industrial activity.

(2) The products produced by the production of cartonboard that must be used as the basis of allocation are—

(a) Product A, which consists of the total tonnes of rolls or sheets of coated or uncoated cartonboard that is—

(i) produced by carrying out the eligible industrial activity; and

(ii) of saleable quality:

(b) Product B, which consists of equivalent air-dried tonnes (90% bone-dry fibre, 10% moisture content) of pulp

produced directly from wood billets, wood chips, or sawdust that is—

(i) produced by carrying out the eligible industrial activity; and

(ii) of saleable quality:

(c) Product C, which consists of equivalent air-dried tonnes (90% bone-dry fibre, 10% moisture content) of pulp produced directly from recovered paper that is—

(i) produced by carrying out the eligible industrial activity; and

(ii) of saleable quality.

(3) For the purposes of this regulation and the Schedule, **production of cartonboard** means the physical transformation of wood chips, sawdust, log billets, wood pulp, or recovered paper to produce rolls or sheets of cartonboard, where the output of this activity is saleable cartonboard that has a grammage range of 150 g/m^2 to 500 g/m^2, a moisture content in the range of 4% to 11% by weight, and is to be generally used as a cartonboard product (for example, kraft liner, multi-ply, and other paperboard).

11 Production of caustic soda

(1) The production of caustic soda is an eligible industrial activity.

(2) The product produced by the production of caustic soda that must be used as the basis of allocation is the total tonnes of 100% equivalent dry-weight sodium hydroxide (NaOH, caustic soda) that is—

(a) produced by carrying out the eligible industrial activity; and

(b) not recycled back into the eligible industrial activity; and

(c) of saleable quality.

(3) For the purposes of this regulation and the Schedule, **production of caustic soda** means the production of chlorine gas and sodium hydroxide (caustic soda) solution by the chemical transformation of sodium chloride solution (NaCl(aq), brine) to chlorine (Cl_2(l,g)) and sodium hydroxide solution (NaOH(aq), caustic soda solution), where the sodium hy-

droxide (NaOH) production is 1:1.13 times the production of chlorine (Cl_2) by mass and the outputs include—

(a) chlorine (Cl_2(l,g)); and

(b) sodium hydroxide solution (NaOH(aq), caustic soda solution), which must have a concentration of sodium hydroxide (NaOH) equal to or greater than 14% with respect to mass.

(4) The chemical reaction involved in the chemical transformation specified in subclause (3) is—

$$2NaCl(aq) + 2H_2O(l) \rightarrow 2NaOH(aq) + Cl_2(g) + H_2(g).$$

12 Production of ethanol

(1) The production of ethanol is an eligible industrial activity.

(2) The product produced by the production of ethanol that must be used as the basis of allocation is the total kilolitres of 100% equivalent ethanol (C_2H_5OH) at 20°C, assuming a density of ethanol (C_2H_5OH) of 789.24 kg/m^3 at 20°C, that is—

(a) produced by carrying out the eligible industrial activity; and

(b) of saleable quality.

(3) For the purposes of this regulation and the Schedule, **production of ethanol** means the production of high-purity ethanol by the chemical transformation of fermentable sugars (for example, $C_6H_{12}O_6$ or $C_5H_{10}O_5$ or $C_{12}H_{22}O_{11}$ or $C_{18}H_{32}O_{16}$) to ethanol (C_2H_5OH) and the subsequent purification process, where the outputs include high-purity ethanol, which must have a concentration of ethanol (C_2H_5OH) equal to or greater than 95% with respect to volume.

13 Production of hydrogen peroxide

(1) The production of hydrogen peroxide is an eligible industrial activity.

(2) The product produced by the production of hydrogen peroxide that must be used as the basis of allocation is the total tonnes of 100% equivalent hydrogen peroxide (H_2O_2) that is—

(a) produced by carrying out the eligible industrial activity; and

(b) of saleable quality.

(3) For the purposes of this regulation and the Schedule, **production of hydrogen peroxide** means the chemical transformation of hydrogen (H) feedstocks and oxygen (O) feedstocks to produce a crude aqueous hydrogen peroxide solution, where the concentration of hydrogen peroxide (H_2O_2(aq)) is equal to or greater than 39% with respect to mass, and subsequent production of saleable aqueous hydrogen peroxide solutions, where the outputs include aqueous hydrogen peroxide solutions, which must have a concentration of hydrogen peroxide (H_2O_2(aq)) equal to or greater than 34% with respect to mass.

14 Production of market pulp

(1) The production of market pulp is an eligible industrial activity.

(2) The products produced by the production of market pulp that must be used as the basis of allocation are—

- (a) Product A, which consists of equivalent air-dried tonnes (90% bone-dry fibre, 10% moisture content) of low-yield pulp that is—
  - (i) produced by carrying out the eligible industrial activity; and
  - (ii) of saleable quality:
- (b) Product B, which consists of equivalent air-dried tonnes (90% bone-dry fibre, 10% moisture content) of high-yield and low-freeness pulp that is—
  - (i) produced by carrying out the eligible industrial activity; and
  - (ii) of saleable quality:
- (c) Product C, which consists of equivalent air-dried tonnes (90% bone-dry fibre, 10% moisture content) of high-yield and high-freeness pulp that is—
  - (i) produced by carrying out the eligible industrial activity; and
  - (ii) of saleable quality.

(3) Any amount of the products described in subclause (2) that is to be used as the basis of allocation for the production of market pulp may not be used as the basis of allocation for any other eligible industrial activity.

(4) For the purposes of this regulation and the Schedule, **production of market pulp** means the physical transformation of

wood chips, sawdust, wood pulp, or recovered paper to produce rolls or bales of market pulp, provided that the market pulp is dried to a moisture content of 4% to 20% by weight and is generally used in paper manufacturing, fibre cement products, or in the production of sanitary products, where the outputs include—

(a) low-yield pulp with a fibre recovery less than or equal to 80% bone-dry fibre by mass on bone-dry wood input:

(b) high-yield and low-freeness pulp with a fibre recovery greater than 80% bone-dry fibre by mass on bone-dry wood input, and a Canadian Standard Freeness of less than 150 ml:

(c) high-yield and high-freeness pulp with a fibre recovery greater than 80% bone-dry fibre by mass on bone-dry wood input, and a Canadian Standard Freeness of greater than or equal to 150 ml.

15 Production of methanol

(1) The production of methanol is an eligible industrial activity.

(2) The product produced by the production of methanol that must be used as the basis of allocation is the total tonnes of 100% equivalent methanol (CH_3OH) that is—

(a) produced by carrying out the eligible industrial activity; and

(b) of saleable quality.

(3) For the purposes of this regulation and the Schedule, **production of methanol** means the chemical transformation of 1 or more of hydrocarbons, hydrogen feedstocks, carbon feedstocks, and oxygen feedstocks to produce liquid methanol (CH_3OH), where the outputs include liquid methanol (CH_3OH), which must have a concentration equal to or greater than 98% with respect to mass.

16 Production of newsprint

(1) The production of newsprint is an eligible industrial activity.

(2) The products produced by the production of newsprint that must be used as the basis of allocation are—

(a) Product A, which consists of tonnes of rolls of uncoated newsprint that is—

(i) produced by carrying out the eligible industrial activity; and
(ii) of saleable quality:

(b) Product B, which consists of equivalent air-dried tonnes (90% bone-dry fibre, 10% moisture content) of pulp produced directly from wood chips or sawdust that is—
(i) produced by carrying out the eligible industrial activity; and
(ii) of saleable quality.

(3) For the purposes of this regulation and the Schedule, **production of newsprint** means the physical transformation of wood chips, sawdust, wood pulp or recovered paper to produce rolls of uncoated newsprint, where the output of this activity is uncoated newsprint that has a grammage range of 30 g/m^2 to 80 g/m^2, a moisture content in the range of 6% to 11% by weight, and is generally used as a newspaper product.

17 Production of packaging and industrial paper

(1) The production of packaging and industrial paper is an eligible industrial activity.

(2) The products produced by the production of packaging and industrial paper that must be used as the basis of allocation are—

(a) Product A, which consists of tonnes of saleable rolls of uncoated packaging or industrial paper that is—
(i) produced by carrying out the eligible industrial activity; and
(ii) of saleable quality:

(b) Product B, which consists of equivalent air-dried tonnes (90% bone-dry fibre, 10% moisture content) of pulp produced directly from wood chips or sawdust that is—
(i) produced by carrying out the eligible industrial activity; and
(ii) of saleable quality:

(c) Product C, which consists of equivalent air-dried tonnes (90% bone-dry fibre, 10% moisture content) of pulp produced directly from recovered paper that is—
(i) produced by carrying out the eligible industrial activity; and

(ii) of saleable quality.

(3) For the purposes of this regulation and the Schedule, **production of packaging and industrial paper** means the physical transformation of wood chips, sawdust, wood pulp, or recovered paper to produce rolls of uncoated packaging and industrial paper, where the output of this activity is uncoated packaging or industrial paper that has a grammage range of 30 g/m^2 to 500 g/m^2, a moisture content in the range of 4% to 12% by weight, and that is generally used as a packaging or industrial paper product (for example, kraft liner; recycled or multi-ply liner; medium, sack, and bag paper; wrapping paper; plasterboard liner; horticultural paper; or building paper; but excluding products produced by the production of cartonboard as specified in regulation 10).

18 Production of tissue paper

(1) The production of tissue paper is an eligible industrial activity.

(2) The products produced by the production of tissue paper that must be used as the basis of allocation are—

(a) Product A, which consists of tonnes of rolls of uncoated tissue paper that is—

(i) produced by carrying out the eligible industrial activity; and

(ii) of saleable quality:

(b) Product B, which consists of equivalent air-dried tonnes (90% bone-dry fibre, 10% moisture content) of pulp produced directly from wood chips or sawdust that is—

(i) produced by carrying out the eligible industrial activity; and

(ii) of saleable quality.

(3) For the purposes of this regulation and the Schedule, **production of tissue paper** means the physical transformation of wood chips, sawdust, or wood pulp to produce rolls of uncoated tissue paper, where the output of this activity is uncoated tissue paper that has a grammage range of 13 g/m^2 to 75 g/m^2, a moisture content in the range of 4% to 11% by weight,

and is generally used as a tissue paper product (for example, facial tissue, paper towel, bathroom tissue, or napkins).

Schedule

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Prescribed emissions intensity and allocative baselines

	Column A	Column B
Eligible industrial activity	**Emissions intensity**	**Allocative baseline**
Aluminium smelting	High	9.687
Production of burnt lime	High	1.428
Production of carbamide (urea)	High	1.621
Production of cartonboard	High	Product A: 1.117 Product B: 0.4633 Product C: 0.3183
Production of caustic soda	High	1.606
Production of ethanol	Moderate	1.465
Production of hydrogen peroxide	High	1.381
Production of market pulp	High	Product A: 0.5853 Product B: 1.338 Product C: 1.014
Production of methanol	High	0.7847
Production of newsprint	High	Product A: 0.4911 Product B: 1.323
Production of packaging and industrial paper	High	Product A: 0.4558 Product B: 0.5100 Product C: 0.09337
Production of tissue paper	Moderate	Product A: 1.197 Product B: 0.7646

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 come into force on 8 July 2010, prescribe the eligible industrial activities and their emissions intensity, their products, and their allocative baselines. They also prescribe the methods for calculating the amount of product from eligible industrial activities.

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