National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Additional Prescribed Production Variables) Rule 2020

I, Angus Taylor, Minister for Energy and Emissions Reduction, make the following instrument.

Dated

Consultation draft

Angus Taylor
Minister for Energy and Emissions Reduction

Contents

1 Name

This instrument is the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Additional Prescribed Production Variables) Rule 2020*.

2 Commencement

(1) Each provision of this instrument specified in column 1 of the table commences, or is taken to have commenced, in accordance with column 2 of the table. Any other statement in column 2 has effect according to its terms.

Commencement information		
Column 1	**Column 2**	**Column 3**
Provisions	**Commencement**	**Date/Details**
1. Sections 1 to 4 of this instrument	The day after this instrument is registered.	
2. Schedule 1	The day after this instrument is registered.	
3. Schedule 2	The second day after this instrument is registered.	

Note: This table relates only to the provisions of this instrument as originally made. It will not be amended to deal with any later amendments of this instrument.

(2) Any information in column 3 of the table is not part of this instrument. Information may be inserted in this column, or information in it may be edited, in any published version of this instrument.

3 Authority

This instrument is made under subsection 22XS(1) of the *National Greenhouse and Energy Reporting Act 2007*.

4 Schedules

Each instrument that is specified in a Schedule to this instrument is amended or repealed as set out in the applicable items in the Schedule concerned, and any other item in a Schedule to this instrument has effect according to its terms.

Schedule 1—Additional production variables

National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015

1 Section 4 (definition of *Safeguard Mechanism document*)

Repeal the definition, substitute:

Safeguard Mechanism document means the document entitled "Safeguard Mechanism: Prescribed production variables and default emissions intensities" published by the Department and as in force on the commencement of the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Additional Prescribed Production Variables) Rule 2020*.

Note: In 2020, the document could be accessed from http://www.industry.gov.au and is included in the explanatory statement for the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Additional Prescribed Production Variables) Rule 2020*.

2 Paragraph 7(1)(d)

Repeal the paragraph (including the note), substitute:

(d) if a facility is partly in Australia and partly in Greater Sunrise special regime area—scope 1 emissions of greenhouse gases which occurred in the Greater Sunrise special regime area.

Note: A facility wholly in the Greater Sunrise special regime area is not subject to the safeguard provisions in accordance with subsection 6A(4) of the Act.

3 At the end of subparagraph 56(1)(b)(ii)

Add "or a default emissions intensity".

4 At the end of paragraph 56(2)(c)

Add:

; and (d) the changed carbon dioxide equivalence of a baseline emissions number derived from a default emissions intensity must be determined consistently with the changed default emissions intensity of the relevant production variable in Schedule 2 or 3.

5 Section 3 of Schedule 2

Insert:

AS or ***Australian standard*** followed by a number (for example, AS 4323.1—1995) means a standard of that number issued by Standards Australia Limited and, if a date is included, of that date.

6 At the end of subsection 16(1) of Schedule 2

Add "and includes activities to enable the extraction of coal and post-mining activities".

7 Note after subsection 17(2) of Schedule 2

Repeal the note, substitute:

(4) The default emissions intensity is:

(a) for a tonne of run-of-mine coal from an underground coal mine—the sum of:

(i) 0.0137 t CO2-e; and

(ii) if section 3.4(6) of the NGER Measurement Determination applies to the coal mine—the factor EF_j given by subsection 3.17(2) of the NGER Measurement Determination for the coal mine;

per tonne of run-of-mine coal; and

(b) for a tonne of run-of-mine coal from an open cut coal mine—the sum of:

(i) 0.0137 t CO2-e; and

(ii) the emissions, in t CO_2-e, calculated under section 3.20, 3.21 or 3.26 of the NGER Measurement Determination for the coal mine in the relevant report under the Act for the financial year divided by the tonnes of run-of-mine coal for the same year;

per tonne of run-of-mine coal.

8 Subsection 18(1) of Schedule 2

Repeal the subsection, substitute:

(1) Tonnes of CO_2-e of unmitigated coal mine waste gas:

(a) generated at the facility as part of carrying on the coal mining activity at the facility; and

(b) not from a decommissioned underground mine.

Note: This includes pre-mine drainage, mining phase activities and post mining activities creating coal mine waste gas in the relevant reporting period.

9 Note after subsection 18(2) of Schedule 2

Repeal the note, substitute:

(3) The default emissions intensity is 0.564 t CO_2-e per tonne of unmitigated coal mine waste gas.

10 Note after subsection 20(3) of Schedule 2

Repeal the note, substitute:

(4) The default emissions intensity is 0.00476 t CO_2-e per tonne of iron ore.

11 Note after subsection 22(3) of Schedule 2

Repeal the note, substitute:

(4) The default emissions intensity is 0.00402 t CO_2-e per tonne of bauxite.

12 Note after subsection 24(3) of Schedule 2

Repeal the note, substitute:

(4) The default emissions intensity is 0.00859 t CO_2-e per tonne of run-of-mine metal ore.

13 Before Division 1 of Part 23 of Schedule 2

Insert:

Division 1AA—Definitions

53A Definitions

In this Part:

bulk freight is the transport of goods that:

(a) consist of one or more of:
  (i) large quantities of a homogenous product; and
  (ii) product in shipping containers; and
  (iii) uniform types of packaged goods such as bags, pallets and drums; and
(b) are conveyed in road tankers (including ISO tankers), side tipping vehicles, skeletal and flat top trailers, and other road registered vehicles used for carrying bulk materials; and
(c) are generally charged on a weight basis.

cubic tonne is the volume of the freight item (generally height × width × depth) multiplied by a cubic conversion factor (for nominal or actual density) to derive an equivalent net weight.

cubic-tonne-kilometre means the unit of measure representing the movement over a distance of one kilometre of one cubic tonne of freight.

deadweight tonne is a tonne of the carrying capacity of the vehicle including fuel, driver and passengers, provisions and freight, but not including the weight of the prime mover and trailer.

deadweight-tonne-kilometre means the unit of measure representing the movement of a deadweight tonne over a distance of one kilometre.

freight includes a saleable good or transported service (such as crane hire) transported in a road-registered vehicle.

net-tonne-kilometre means the unit of measure representing the movement over a distance of one kilometre of one net tonne of freight.

net tonne, of freight, is the mass of the freighted goods, excluding the mass of the prime mover, trailer, fuel, driver, passengers and provisions**.**

non-bulk freight is the transport of packaged and pallet loads of freight, that is not bulk freight or specialised and heavy haulage, in vehicles with carrying capacity greater than 4.5 tonnes.

non-bulk (temperature-controlled) freight is the transport of non-bulk freight in temperature controlled conditions, such as by refrigeration, in vehicles with carrying capacity greater than 4.5 tonnes where the power for the temperature control equipment is derived from the drive train.

specialised and heavy haulage is the transportation of either or both of specialised equipment and loads in excess of 200 tonnes on road-registered vehicles that is not bulk freight.

specialised equipment includes:

(a) platform low loaders and trailing equipment capable of carrying loads in excess of 200 tonnes; and
(b) crane and rigging services and lift and shift operations; and
(c) custom engineered trailers for off the road tyre transport; and
(d) equipment for port discharge; and
(e) machines for sleeper transport and positioning; and
(f) equipment and machinery used for transferring freight between the road transport vehicle and another form of transport (such as rail or shipping); and
(g) other similar equipment.

small freight is the transport of goods in road-registered vehicles with a gross vehicle mass of 4.5 tonnes or less.

vehicle delivery is a discrete freight journey between a location where one or more packages are collected and a location where they are delivered, for a single vehicle.

14 After section 54 of Schedule 2

Insert:

Division 2—Non-bulk freight

54A Cubic-tonne-kilometres of non-bulk freight

(1) Cubic-tonne-kilometres of non-bulk freight that:

(a) result from carrying on the non-bulk freight road transport activity at the facility; and

(b) are not counted for another production variable in this Part.

(2) The metric in subsection (1) is applicable to a facility that:

(a) transports non-bulk freight by road in registered vehicles that do not control the temperature of the freight (the ***non-bulk freight road transport activity***); and

(b) is in the road freight transport ANZSIC industry classification and code 461.

Note: The default emissions intensity for this prescribed production variable is yet to be calculated and specified in the Schedule.

(4) The cubic-tonne-kilometres must be measured consistently with relevant industry practice.

Division 3—Non-bulk (temperature controlled) freight

54B Cubic-tonne-kilometres of non-bulk freight

(1) Cubic-tonne-kilometres of non-bulk (temperature controlled) freight that:

(a) result from carrying on the non-bulk (temperature controlled) freight road transport activity at the facility; and

(b) are not counted for another production variable in this Part.

(2) The metric in subsection (1) is applicable to a facility that:

(a) transports non-bulk (temperature controlled) freight by road in registered vehicles that control the temperature of the freight (the ***non-bulk (temperature controlled) freight road transport activity***); and

(b) is in the road freight transport ANZSIC industry classification and code 461.

Note: The default emissions intensity for this prescribed production variable is yet to be calculated and specified in the Schedule.

(4) The cubic-tonne-kilometres must be measured consistently with relevant industry practice.

Division 4—Specialised and heavy haulage

54C Deadweight-tonne-kilometres of specialised and heavy haulage

(1) Deadweight-tonne-kilometres of specialised and heavy haulage that:

(a) result from carrying on the specialised and heavy haulage road transport activity at the facility; and

(b) are not counted for another production variable in this Part.

(2) The metric in subsection (1) is applicable to a facility that:

(a) transports specialised and heavy haulage by road in registered vehicles (the ***specialised and heavy haulage road transport activity***); and

(b) is in the road freight transport ANZSIC industry classification and code 461.

Note: The default emissions intensity for this prescribed production variable is yet to be calculated and specified in the Schedule.

(4) The deadweight-tonne-kilometres must be measured consistently with relevant industry practice.

Division 5—Bulk freight

54D Net-tonne-kilometres of bulk freight

(1) Net-tonne-kilometres of bulk freight that:

(a) result from carrying on the bulk freight road transport activity at the facility; and

(b) are not counted for another production variable in this Part.

(2) The metric in subsection (1) is applicable to a facility that:

(a) transports bulk freight by road in registered vehicles (the ***bulk freight transport activity***); and

(b) is in the road freight transport ANZSIC industry classification and code 461.

Note: The default emissions intensity for this prescribed production variable is yet to be calculated and specified in the Schedule.

(4) The net-tonne-kilometres must be measured consistently with relevant industry practice.

Division 6—Small freight

54E Vehicle deliveries of small freight

(1) Vehicle deliveries of small freight that:

(a) result from carrying on the small freight road transport activity at the facility; and

(b) are not counted for another production variable in this Part.

(2) The metric in subsection (1) is applicable to a facility that:

(a) transports small freight by road in registered vehicles that have a gross vehicle mass of 4.5 tonnes or less (the ***small freight road transport activity***); and

(b) is in the road freight transport ANZSIC industry classification and code 461.

Note: The default emissions intensity for this prescribed production variable is yet to be calculated and specified in the Schedule.

(4) The vehicle deliveries must be measured consistently with relevant industry practice.

15 After section 55 of Schedule 2

Add:

Division 2—Bulk freight water transport

55A Net-tonne-kilometres of bulk freight water transport

(1) Net-tonne-kilometres of bulk freight water transport that:
  (a) result from carrying on the bulk freight water transport activity at the facility; and
  (b) relate to the covered emissions of the facility; and
  (c) are not counted for the mixed passenger and freight water transport production variable in section 55 of Schedule 2.

(2) The metric in subsection (1) is applicable to a facility that:
  (a) transports bulk freight by water (the ***bulk freight water transport activity***); and
  (b) is in the water freight transport ANZSIC industry classification and code 481.

(3) The default emissions intensity is 5.4×10^{-6} t CO_2-e per net tonne-kilometre.

(4) The relevant kilometres must be measured:
  (a) using the actual distance travelled and recorded on a ship for a voyage; or
  (b) by using an internationally accepted standard distance between the two ports on a voyage.

(5) In this section:

net-tonne-kilometres, of bulk freight water transport, are the tonnes of the bulk freight carried on board a ship for a voyage multiplied by the kilometres of the laden voyage.

16 At the end of Schedule 2

Add:

Part 27—Natural Gas Distribution

58 Petajoule-kilometres of natural gas distribution

(1) Petajoule-kilometres of natural gas:
  (a) delivered to customers as part of carrying on the natural gas distribution activity at the facility; and
  (b) that is not lost or consumed as part of carrying on the natural gas distribution activity; and
  (c) that is only counted once.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of transporting natural gas through natural gas distribution pipelines to customers (the ***natural gas distribution activity***) and reports emissions under Division 3.3.8 of the NGER (Measurement) Determination.

(3) The default emissions intensity is 0.227 t CO_2-e per petajoule-kilometre.

(4) The energy content of natural gas:
  (a) must be measured as the higher heating value energy content; and
  (b) may include the energy content of hydrogen included in the natural gas so long as the natural gas mixture meets applicable standards for gas within the network (such as Australian Standard 4564).

Note: In 2020, AS 4564 was available from http://www.standards.org.au.

(4) In this section:

natural gas has the meaning given by the NGER Regulations.

natural gas distribution pipelines mean pipelines for the conveyance of natural gas that report emissions under Division 3.3.8 of the NGER (Measurement) Determination.

petajoule-kilometre means the multiplication of:

(a) the total energy content, in petajoules, of natural gas delivered to customers by means of a natural gas distribution pipelines which are part of the facility; and

(b) the total length, in kilometres, of the natural gas distribution pipelines used to deliver natural gas to customers as part of the facility as at the end of the relevant financial year.

Note: Natural gas distribution pipelines not used in the delivery of natural gas to customers are not included in these kilometres.

Part 28—Natural Gas Transmission

Division 1—Definitions

59 Definitions

(1) In this Part:

natural gas has the meaning given by the NGER Regulations.

natural gas transmission pipeline means a pipeline for the conveyance of natural gas or plant condensate that reports emissions under Division 3.3.7 of the NGER (Measurement) Determination.

(2) In this Part the activity of ***natural gas transmission*** is the transport natural gas or plant condensate through natural gas transmission pipelines to customers or distribution networks**.**

Note: Customers could include large industrial facilities, liquefied natural gas stations or natural gas processing stations.

Division 2—Natural gas transmission production variables

60 Kilometres of natural gas transmission pipelines

(1) Kilometres of natural gas transmission pipelines used to deliver natural gas or plant condensate to customers or distribution networks as part of carrying on the natural gas transmission activity at the facility.

(2) The metric in subsection (1) is applicable to a facility that conducts the natural gas transmission activity and reports emissions under Division 3.3.7 of the NGER (Measurement) Determination.

(3) The default emissions intensity is 10.42 t CO_2-e per kilometre.

(4) The kilometres of the natural gas transmissions pipelines must not be greater than the kilometres of pipelines reported under section 3.76 of the NGER (Measurement) Determination for the same financial year.

Note: A further natural gas transmission production variable is being developed and is intended to be section 61 of this Schedule.

Part 29—Clinker, lime and cement production

Division 1—Definitions

62 Definitions

(1) In this Part:

cement means any hydraulic cement, including general purpose and blended cements, meeting the minimum requirements for such cements set out in AS 3972—2010 or any other specific contract and export specifications.

Note: In 2020, AS 3972—2010 was available from http://www.standards.org.au.

Portland cement clinker means the Portland cement clinker resulting from clinker production which:

(a) has a concentration of calcium silicates equal to or greater than 60% by mass; and

(b) has a concentration of magnesium oxide (MgO) equal to or less than 4.5% by mass; and

(c) is useable in the making of Portland cement.

(2) In this Part the activity of ***clinker production*** is the physical and chemical transformation of:

(a) either or both of calcium carbonate compounds (limestone ($CaCO_3$)) and other calcium carbonate ($CaCO_3$) feedstocks; and

(b) any of the following:

(i) clay;

(ii) clay mixed with 1 or more feedstocks that contain 1 or more of the following:

(A) silicon dioxide (SiO_2);

(B) iron (Fe);

(C) aluminium oxide (alumina (Al_2O_3));

(iii) 1 or more feedstocks that, when combined, contain all of the following:

(A) silicon dioxide (SiO_2);

(B) iron (Fe);

(C) aluminium oxide (alumina (Al_2O_3));

that are fused together at a temperature above 1000 °C into Portland cement clinker.

Division 2—Clinker and cement production variables

63 Clinker not used by facility to make cement

(1) Tonnes of Portland cement clinker on a dry weight basis that:

(a) is produced as part of carrying on the clinker production activity at the facility; and

(b) is exported from the facility or allocated for export from the facility (whether the export will occur within or after the reporting year); and

(c) is not used to make cement at the facility; and

(d) is of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that:

(a) conducts the clinker production activity at the facility; and

(b) if the metric in section 65 of this Schedule is applicable to the facility—also uses that prescribed production variable.

(3) The default emissions intensity is 0.841 t CO_2-e per tonne of Portland cement clinker.

64 Cement produced from clinker at a facility

(1) Tonnes of cement on a dry weight basis that:
  (a) is produced as part of carrying out the cement production activity at the facility; and
  (b) is attributable to Portland cement clinker produced as part of carrying on the clinker production activity at the facility in accordance with subsection (4); and
  (c) is of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that:
  (a) conducts the clinker production activity at the facility; and
  (b) conducts the activity of producing cement through the physical transformation of Portland cement clinker into cement through a process of comminution with gypsum or other additives (the ***cement production activity***); and
  (c) if the metric in section 64 is applicable to the facility—also uses that prescribed production variable.

(3) The default emissions intensity is 0.708 t CO_2-e per tonne of cement.

(4) For subsection (1) cement is attributable to Portland cement clinker produced as part of carrying on the clinker production activity at the facility in accordance with the following equation:

$$\mathrm{Ce_a} = \mathrm{Ce_f} \times \frac{\mathrm{Cl_f}}{\mathrm{Cl_f} + \mathrm{Cl_i}}$$

where:

Ce_a is the cement attributable to Portland cement clinker produced as part of carrying on the clinker production activity at the facility, in tonnes.

Ce_f is the total amount of cement produced at the facility (f) in the reporting year, in tonnes, that is of saleable quality.

Cl_f is the amount of Portland cement clinker, in tonnes, produced as part of carrying on the clinker production activity at the facility (f) in the reporting year and used, or intended to be used, to produce cement at the facility, not including any tonnes of Portland cement clinker counted for the metric in section 64 of this Schedule.

Cl_i is the amount of Portland cement clinker, in tonnes, not covered by Cl_f and imported in the reporting year to produce cement at the facility (whether or not the Portland cement clinker was produced in or outside of Australia).

(5) For paragraphs 4.23C(2)(b) and 4.23D(3)(b) of the NGER Regulations, the following information must be included in a report under the Act in calculating the amount of the prescribed (annually adjusted) production variable for a reporting year:
  (a) the total amount of Portland cement clinker produced at a facility in the reporting year (whether or not it is used, exported from the facility or stockpiled); and
  (b) the value of each variable in the equation in subsection (4).

Division 3—Lime

65 Lime

(1) Tonnes of lime on a dry weight basis that:

(a) is produced as part of carrying on the lime production activity at the facility; and

(b) has a concentration of either or both of calcium oxide (CaO) and magnesium oxide (MgO) equal to or greater than 60% by mass; and

(c) is of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing lime through the physical and chemical transformation, through the calcining process, of calcium and magnesium sources (such as calcium carbonate ($CaCO_3$) and magnesium carbonate ($MgCO_3$)) into lime that has a concentration of either or both of calcium oxide (CaO) and magnesium oxide (MgO) equal to or greater than 60% by mass (the ***lime production activity***).

(3) The default emissions intensity is 1.13 t CO_2-e per tonne of lime.

Part 30—Non-metallic mineral quarrying

66 Quarried rock

(1) Tonnes of quarried rock that:

(a) contains 1 or more minerals that are not metals; and

(b) is produced as part of carrying on the non-metallic mineral quarrying activity at the facility; and

(c) is either:

(i) of saleable quality at the mine; or

(ii) suitable as a feed source of 1 or more non-metallic minerals for production of other processed products; and

(d) has not been counted for another production variable at the facility; and

(e) is not eligible to be a production variable mentioned in Parts 13 to 18 of this Schedule.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of quarrying non-metallic minerals through:

(a) the physical extraction of non-metallic rock containing 1 or more minerals that are not metals; and

(b) the processing of the extracted rock to produce a non-metallic mineral product or feedstock material, such as aggregates for the construction industry.

(3) The activity in subsection (2) is the ***non-metallic mineral quarrying activity***.

Note: The default emissions intensity for this prescribed production variable is yet to be calculated and specified in the Schedule.

Part 31—Silicon

67 Silicon

(1) Tonnes of silicon (Si) that:

(a) has a concentration of silicon equal to or greater than 98% by mass; and

(b) is produced as part of carrying on the silicon production activity at the facility; and

(c) is of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing silicon through the chemical transformation of silica (silicon dioxide (SiO_2))

to produce silicon with a concentration of silicon equal to or greater than 98% by mass, conducted in accordance with the overall chemical equation:

$SiO_2(s) + 2C(s) \rightarrow Si(s) + 2CO(g)$

(3) The activity in subsection (2) is the ***silicon production activity***.

(4) The default emissions intensity is 1.92 t CO_2-e per tonne of silicon.

Part 32—Lead bullion

68 Lead bullion

(1) Tonnes of lead bullion that:

(a) has a concentration of lead (pb) equal to or greater than 99% by mass; and

(b) is produced as part of carrying on the lead bullion production activity at the facility; and

(c) is of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing lead bullion through the chemical transformation of concentrated mineralized lead compounds, with or without additional lead bearing secondary materials, into lead bullion (the ***lead bullion production activity***).

Note: The default emissions intensity for this prescribed production variable is yet to be calculated and specified in the Schedule.

Part 33—Refined lead

69 Refined lead

(1) Tonnes of refined lead that:

(a) has a concentration of lead (pb) equal to or greater than 99.97% by mass; and

(b) is produced as part of carrying on the refined lead production activity at the facility; and

(c) is of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing refined lead through the chemical transformation of concentrated mineralized lead compounds, with or without additional lead bearing secondary materials, into refined lead (the ***refined lead production activity***).

Note: The blasting and sintering processes used in the activity may also treat either or both of concentrated mineralised zinc compounds and zinc bearing secondary materials.

(3) The default emissions intensity is 1.21 t CO_2-e per tonne of refined lead.

Part 34—Zinc in fume

70 Zinc in fume

(1) Tonnes of zinc in fume that:

(a) has a concentration of zinc (Zn) equal to or greater than 60% by mass; and

(b) is produced as part of carrying on the zinc in fume production activity at the facility; and

(c) is of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing zinc in fume through the chemical transformation in a slag fumer of zinc-containing residues and wastes to produce zinc in fume (the ***zinc in fume production activity***).

(3) The default emissions intensity is 3.34 t CO_2-e per tonne of zinc in fume.

Part 35—Caustic calcined magnesia

71 Caustic calcined magnesia

(1) Tonnes of caustic calcined magnesia that:

(a) has a minimum magnesium oxide (MgO) content of 75% by mass; and

(b) is burned between 650°C and 1200°C; and

(c) is produced as part of carrying on the magnesia production activity at the facility; and

(d) is of saleable quality.

Note: Due to the definition of saleable quality, inputs that are transformed into saleable magnesia which is then re-calcined are only counted once.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing caustic calcined magnesia through the physical and chemical transformation of magnesite (magnesium carbonate ($MgCO_3$)) in a furnace into caustic calcined magnesia (the ***magnesia production activity***).

Note: Caustic calcined magnesia may also be transformed into deadburned magnesia and electrofused magnesia at the facility, which involves burning or fusing at higher temperatures than in paragraph (1)(b).

Note: The default emissions intensity for this prescribed production variable is yet to be calculated and specified in the Schedule.

Part 36—Copper anode

72 Copper anode

(1) Tonnes of copper anode that:

(a) has a concentration of copper (Cu) between 99% and 99.9% by mass; and

(b) is produced as part of carrying on the copper anode production activity at the facility; and

(c) is of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing copper anode through the physical and chemical transformation of copper sulphide concentrates in a smelter to produce copper anodes (the ***copper anode production activity***).

Note: Copper anode is often an input into the production of copper cathode at the same facility.

(3) The default emissions intensity is 0.677 t CO_2-e per tonne of copper anode.

Part 37—Manganese sinter

73 Manganese sinter

(1) Tonnes of manganese sinter that:
  (a) has a minimum concentration of manganese (Mn) of 40% by mass; and
  (b) is produced as part of carrying on the manganese sinter production activity at the facility; and
  (c) is of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing manganese sinter through the physical and chemical transformation of small particles of manganese ore by sintering into manganese sinter (the ***manganese sinter production activity***).

Note: Manganese sinter is often an input into an electric arc furnace.

(3) The default emissions intensity is 0.242 t CO_2-e per tonne of manganese sinter.

Part 38—Ferromanganese alloy

74 Ferromanganese alloy

(1) Tonnes of ferromanganese alloy that:
  (a) has a minimum concentration of manganese (Mn) of 67% by mass; and
  (b) is produced as part of carrying on the ferromanganese production activity at the facility; and
  (c) is of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing ferromanganese through the physical and chemical transformation of manganese ore or sinter into ferromanganese alloy (the ***ferromanganese production activity***).

(3) The default emissions intensity is 1.30 t CO_2-e per tonne of ferromanganese alloy.

Part 39—Silicomanganese alloy

75 Silicomanganese alloy

(1) Tonnes of silicomanganese alloy that:
  (a) has a minimum concentration of manganese (Mn) of 60% by mass; and
  (b) has a minimum concentration of silicon (Si) of 12% by mass; and
  (c) is produced as part of carrying on the silicomanganese production activity at the facility; and
  (d) is of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing silicomanganese through the physical and chemical transformation of one or more of manganese ore, manganese sinter and ferromanganese slag produced at the facility into silicomanganese alloy (the ***silicomanganese production activity***).

(3) The default emissions intensity is 1.70 t CO_2-e per tonne of silicomanganese alloy.

Part 40—Nickel manufacturing

Division 1—Definitions

76 Definitions

(1) In this Part:

intermediate nickel products means any of the following:

(a) nickel matte;

(b) mixed nickel-cobalt hydroxide precipitate that has a concentration of nickel between 35% and 47% (inclusive) by mass;

(c) mixed nickel-cobalt sulphide precipitate that has a concentration of nickel between 43 and 57% (inclusive) by mass;

(d) basic nickel carbonate ($Ni_3(CO_3)(OH)_4$) that has a concentration of nickel between 40% and 45% (inclusive) by mass;

(e) crude nickel sulphate that has a concentration of nickel equal to or greater than 21% by mass.

imported intermediate nickel products, for a facility, means an intermediate nickel product not produced at the facility.

nickel bearing inputs means any of the following:

(a) mineralised nickel ores (including laterite or sulphide ores);

(b) nickel sulphide concentrates;

(c) other nickel containing concentrates that have not undergone secondary processing;

(d) low grade nickel waste products that require equivalent processing to mineralised nickel ores.

primary nickel products means any of the following:

(a) basic nickel carbonate ($Ni_3(CO_3)(OH)_4$) that has a concentration of nickel equal to or greater than 50% by mass;

(b) nickel oxide (NiO) that has a concentration of nickel equal to or greater than 78% by mass;

(c) nickel sulphate hexahydrate ($NiSO_4.6H_2O$) that has a concentration of nickel equal to or greater than 22% by mass;

(d) other nickel products that have a concentration of nickel equal to or greater than 98% by mass.

(2) In this Part the activity of ***nickel manufacturing*** is the physical and chemical transformation of either or both of:

(a) nickel bearing inputs into intermediate nickel products or primary nickel products; and

(b) intermediate nickel products into primary nickel products.

Division 2—Nickel production variables

77 Primary nickel products from nickel bearing inputs

(1) Tonnes of 100% equivalent nickel that:

(a) is contained within primary nickel products that:

(i) are produced from nickel bearing inputs as part of carrying on the nickel manufacturing activity at the facility; and

(ii) are of saleable quality; and

(b) has not been counted in relation to the intermediate nickel product production variable at the facility.

(2) The metric in subsection (1) is applicable to a facility that conducts the nickel manufacturing activity

(3) The default emissions intensity is 8.78 t CO_2-e per tonne of 100% equivalent nickel.

78 Primary nickel products from imported intermediate nickel products

(1) Tonnes of 100% equivalent nickel contained within primary nickel products that:

(a) are produced from imported intermediate nickel products as part of carrying on the nickel manufacturing activity at the facility; and

(b) are of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that conducts the nickel manufacturing activity.

(3) The default emissions intensity is 2.52 t CO_2-e per tonne of 100% equivalent nickel.

79 Intermediate nickel products from nickel bearing inputs

(1) Tonnes of 100% equivalent nickel contained within intermediate nickel products that:

(a) are produced from nickel bearing inputs as part of carrying on the nickel manufacturing activity at the facility; and

(b) are not, and are not intended to be, transformed into primary nickel products at the facility; and

(c) are of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that conducts the nickel manufacturing activity.

(3) The default emissions intensity is 1.76 t CO_2-e per tonne of 100% equivalent nickel.

Part 41—Pulp and paper production

Division 1—Definitions

80 Definitions

In this Part:

newsprint manufacturing activity—see section 84.

packaging and industrial paper manufacturing activity—see section 82.

printing and writing paper manufacturing activity—see section 83.

pulp production activity—see section 85.

tissue paper manufacturing activity—see section 81.

Division 2—Tissue paper

81 Tissue paper

(1) Tonnes of rolls of uncoated tissue paper that:

(a) has a grammage range of 13 g/m^2 to 75 g/m^2; and

(b) has a moisture content in the range of 4% to 11% by mass; and

(c) is generally useable in sanitary products such as facial tissue, paper towel, bathroom tissue and napkins; and

(d) has not been counted for another production variable at the facility; and

(e) is produced as part of carrying on the tissue paper manufacturing activity at the facility; and

(f) is of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing rolls of uncoated tissue paper through the physical or chemical transformation of any or all of wood chips, sawdust, wood pulp and recovered paper into rolls of uncoated tissue paper that:

(a) has a grammage range of 13 g/m^2 to 75 g/m^2; and

(b) has a moisture content in the range of 4% to 11% by mass; and

(c) is generally useable in sanitary products such as facial tissue, paper towel, bathroom tissue and napkins; and

(d) is of saleable quality.

(3) The activity in subsection (2) is the ***tissue paper manufacturing activity***.

Note: The default emissions intensity for this prescribed production variable is yet to be calculated and specified in the Schedule.

Division 3—Packaging and industrial paper

82 Packaging and industrial paper

(1) Tonnes of rolls of packaging and industrial paper that:

(a) is produced from wholly or partially unbleached input fibre; and

(b) has a grammage range of 30 g/m^2 to 500 g/m^2; and

(c) has a moisture content in the range of 4% to 11% by mass; and

(d) is uncoated; and

(e) is generally useable as a packaging or industrial paper, including products such as kraft liner, recycled or multiply liner, medium, sack and bag paper, wrapping paper, plasterboard liner, horticultural paper and building paper; and

(f) has not been counted for another production variable at the facility; and

(g) is produced as part of carrying on the packaging and industrial paper manufacturing activity at the facility; and

(h) is of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing rolls of packaging and industrial paper through physical or chemical transformation of any or all of wood chips, sawdust, wood pulp and recovered paper into packaging and industrial paper that:

(a) is produced from wholly or partially unbleached input fibre; and

(b) has a grammage range of 30 g/m^2 to 500 g/m^2; and

(c) has a moisture content in the range of 4% to 11% by mass; and
(d) is uncoated; and
(e) is generally useable as a packaging or industrial paper, including products such as kraft liner, recycled or multiply liner, medium, sack and bag paper, wrapping paper, plasterboard liner, horticultural paper and building paper; and
(f) is of saleable quality.

(3) The activity in subsection (2) is the ***packaging and industrial paper manufacturing activity***.

Note: The default emissions intensity for this prescribed production variable is yet to be calculated and specified in the Schedule.

Division 4—Printing and writing paper

83 Printing and writing paper

(1) Tonnes of rolls of uncoated printing and writing paper that:
(a) is produced from 100% bleached or brightened input fibre; and
(b) has a grammage range of 42 g/m^2 to 350 g/m^2; and
(c) has a moisture content in the range of 4% to 11% by mass; and
(d) is generally useable as a printing and writing paper product, including products such as offset paper, copy paper, laser printing paper, magazine paper, filing card paper, manilla, book printing paper, envelope paper, forms paper, scholastic paper, cheque paper and security paper; and
(e) has not been counted for another production variable at the facility; and
(f) is produced as part of carrying on the printing and writing paper manufacturing activity at the facility; and
(g) is of saleable quality.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing rolls of coated or uncoated printing and writing paper through physical or chemical transformation of any or all of wood chips, sawdust, wood pulp and recovered paper into rolls of coated or uncoated printing and writing paper that:
(a) is produced from 100% bleached or brightened input fibre; and
(b) has a grammage range of 42 g/m^2 to 350 g/m^2; and
(c) has a moisture content in the range of 4% to 11% by mass; and
(d) is generally useable as a printing and writing paper product, including products such as offset paper, copy paper, laser printing paper, magazine paper, filing card paper, manilla, book printing paper, envelope paper, forms paper, scholastic paper, cheque paper and security paper; and
(e) is of saleable quality.

(3) The activity in subsection (2) is the ***printing and writing paper manufacturing activity***.

Note: The default emissions intensity for this prescribed production variable is yet to be calculated and specified in the Schedule.

Division 5—Newsprint

84 Newsprint

(1) Tonnes of rolls of uncoated newsprint that:
(a) has a grammage range of 30 g/m^2 to 80 g/m^2; and

(b) has a moisture content range of 4% to 11% by mass; and
(c) is generally usable for newspaper or publication products; and
(d) has not been counted for another production variable at the facility;
(e) is produced as part of carrying on the newsprint manufacturing activity at the facility.

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing rolls of uncoated newsprint through the chemical and physical transformation, using an integrated process, of any or all of woodchips, sawdust, wood pulp and recovered paper into rolls of uncoated newsprint that:
(a) has a grammage range of 30 g/m^2 to 80 g/m^2; and
(b) has a moisture content range of 4% to 11% by mass; and
(c) is generally usable for newspaper or publication products.

(3) The activity in subsection (2) is the ***newsprint manufacturing activity***.

Note: The default emissions intensity for this prescribed production variable is yet to be calculated and specified in the Schedule.

Division 6—Pulp

85 Pulp

(1) Tonnes of wet or dry pulp that:
(a) is generally useable in one or more of:
(i) paper manufacturing;
(ii) packaging and cardboard manufacturing;
(iii) newsprint manufacturing;
(iv) tissue paper manufacturing;
(v) the production of sanitary products (such as a fluff pulp layer in sanitary products); and
(b) is measured according to ordinary measurement rules applicable in the industry; and
(c) if wet pulp—is converted to an air dried basis; and
(d) is produced as part of carrying on the pulp production activity at the facility.

Note: The quantity of pulp is generally converted to an air dried basis by adjusting the relevant tonnes to their mass with a moisture content of 10% (without drying the relevant wet pulp product).

(2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing pulp through the physical or chemical transformation of any or all of wood chips, sawdust, wood pulp and recovered paper into wet or dry pulp that is generally usable in one or more of the following:
(a) paper manufacturing;
(b) packaging and cardboard manufacturing;
(c) newsprint manufacturing;
(d) tissue paper manufacturing;
(e) the production of sanitary products (such as a fluff pulp layer in sanitary products).

(3) The activity in subsection (2) is the ***pulp production activity***.

Note: The default emissions intensity for this prescribed production variable is yet to be calculated and specified in the Schedule.

Schedule 2—Update to Global Warming Potentials

National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015

1 After section 81

Add:

Division 3—Application and transitional provisions relating to the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Additional Prescribed Production Variables) Rule 2020*

82 Default emissions intensities for financial year beginning on 1 July 2019

If a default emissions intensity is being used in relation to a baseline emissions number for the financial year beginning on 1 July 2019, the default emissions intensity is to be determined as the value in force immediately before the commencement of Schedule 2 of the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Additional Prescribed Production Variables) Rule 2020*.

83 Default emissions intensities and calculated-emissions baseline determinations for financial year beginning on 1 July 2020

(1) If a default emissions intensity is being used in relation to a baseline emissions number for the financial year beginning on 1 July 2020, the default emissions intensity is to be determined as the value in force immediately after the commencement of Schedule 2 of the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Additional Prescribed Production Variables) Rule 2020*.

Note: This applies instead of subsection 44(3B) for the financial year beginning on 1 July 2020.

(2) If a calculated-emissions baseline determination is in force for the financial year beginning 1 July 2020 and was not updated under section 56 to reflect the change in carbon dioxide equivalence, the Regulator must update that determination under section 56 based on the values of any relevant default emissions intensities in force immediately after the commencement of Schedule 2 of the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Additional Prescribed Production Variables) Rule 2020*.

84 Calculated-emissions baseline determinations applying from 1 July 2019

(1) If a calculated-emissions baseline determination for a facility is made commencing from 1 July 2019 using the carbon dioxide equivalence of greenhouse gases in force on 1 July 2020 for an estimated emissions intensity, the responsible emitter for the facility may apply to the Regulator to adjust the baseline emissions number for the financial year beginning on 1 July 2019 to apply the carbon dioxide equivalence of the relevant greenhouse gases as in force on 1 July 2019.

(2) After considering an application under subsection (1), the Regulator may amend the determination in respect of the financial year beginning on 1 July 2019.

(3) An application under subsection (1) must be given in a manner and form approved, in writing, by the Regulator and can be made before the making of the determination.

2 Subsection 7(3) of Schedule 2

Omit "1.86", substitute "1.85".

3 Subsection 10(3) of Schedule 2

Omit "0.352", substitute "0.315".

4 Subsection 22(3) of Schedule 2

Omit "0.00402", substitute "0.00401".

5 Subsection 49(3) of Schedule 2

Omit "0.00000527", substitute "5.29×10^{-6}".

6 Subsection 50(3) of Schedule 2

Omit "0.0000163", substitute "1.63×10^{-5}".

7 Subsection 51(3) of Schedule 2

Omit "0.0000204", substitute "2.05×10^{-5}".

8 Subsection 52(3) of Schedule 2

Omit "0.0000710", substitute "7.12×10^{-5}".

9 Subsection 55(3) of Schedule 2

Omit "0.000103", substitute "1.04×10^{-4}".

10 Subsection 55A(3) of Schedule 2

Omit "5.4×10^{-6}", substitute "5.39×10^{-6}".

11 Paragraph 56(3)(a) of Schedule 2

Omit "0.459", substitute "0.513".

12 Paragraph 56(3)(b) of Schedule 2

Omit "5.03", substitute "4.48".

13 Subsection 57(3) of Schedule 2

Omit "0.538", substitute "0.539".

14 Subsection 58(3) of Schedule 2

Omit "0.227", substitute "0.254".

15 Subsection 60(3) of Schedule 2

Omit "10.42", substitute "11.62".

16 Subsection 4(6) of Schedule 3

Omit "0.136", substitute "0.138".