



EXPOSURE DRAFT (09/05/2024)

National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Best Practice Emissions Intensities Update) Rules 2024

I, Chris Bowen, Minister for Climate Change and Energy, make the following rules.

Dated

Chris Bowen (**DRAFT ONLY, NOT FOR SIGNATURE**)

Minister for Climate Change and Energy

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1 Name

This instrument is the *National Greenhouse and Energy Reporting (Safeguard Mechanism) Amendment (Best Practice Emissions Intensities Update) Rules 2024*.

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. The whole of this instrument	The 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Note: This table relates only to the provisions of this instrument as originally made.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 section 22XS 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Each instrument that is specified in a Schedule to this instrument is amended or repealed as set out in the applicable items in the Schedule concerned, and any other item in a Schedule to this instrument has effect according to its terms.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—Amendments

National Greenhouse and Energy Reporting (Safeguard Mechanism) Rule 2015

1 Subsection 39(3)

Repeal the subsection, substitute:

- (3) The application must include the following information:
- (a) if the facility was not a manufacturing facility in the first financial year—all of the following:
 - (i) subject to subsection 36(2), the revenue of the facility in the first financial year, calculated in accordance with:
 - (A) the Australian accounting standards as in force at the end of the first financial year; and
 - (B) any EBIT Guidelines that are in force at the time;
 - (ii) information about the assumptions made when working out that revenue;
 - (iii) for the purposes of subsection (3)(a)(i), EBIT Guidelines prevail over the Australian accounting standards to the extent of any inconsistency;
 - (b) if the facility was a manufacturing facility in the first financial year—all of the following:
 - (i) the earnings before interest and tax (the **EBIT**) of the facility in the first financial year, calculated in accordance with section 37;
 - (ii) information about the assumptions made when working out the EBIT under that section;
 - (iii) each depreciation factor used in the depreciation schedule used for calculating the EBIT;
 - (iv) if the depreciation schedule used for calculating the EBIT uses an accelerated depreciation factor—an explanation for why the accelerated depreciation factor is used;
 - (c) both of the following:
 - (i) the assessed cost impact for the facility for the first financial year;
 - (ii) information about the assumptions made when working out that assessed cost impact;
 - (d) the amount of covered emissions of greenhouse gases from the operation of the facility in the first financial year;
 - (e) the hypothetical baseline for the facility for the first financial year;
 - (f) the emissions reduction contribution, and the baseline emissions number, for the facility for the first financial year if:
 - (i) the determination were made; and
 - (ii) those numbers were worked out using the assessed cost impact for the facility for the first financial year;
 - (g) an estimate of the emissions reduction contribution for the facility for each of the next 2 financial years after the first financial year if the determination were made.

2 At the end of section 72

Add:

- (4) If the total amount of covered emissions of greenhouse gases from the operation of a designated large facility during a financial year is set out in a report under this Act for the financial year, the Regulator must publish on its website by 15 April next following the financial year, the methods used by the facility to estimate each source of fugitive methane emissions from the following for the previous financial year:
 - (a) coal mining activities; and
 - (b) oil and natural gas activities.

3 At the end of section 9 of Schedule 1

Add:

- (4) The best practice emissions intensity is 1.26 t CO₂-e per tonne of 100% equivalent anhydrous ammonia.

4 At the end of section 11 of Schedule 1

Add:

- (5) The best practice emissions intensity is 0.306 t CO₂-e per tonne of 100% equivalent carbamide.

5 At the end of Part 9 of Schedule 1

Add:

Part 9A—Phosphoric acid

12B Phosphoric acid

- (1) Kilolitres of 100% equivalent phosphoric acid (H₃PO₄) that:
 - (a) are contained in solution where the concentration of phosphoric acid is greater than 70% by weight; and
 - (b) are produced as part of carrying on the phosphoric acid production activity at the facility; and
 - (c) are of saleable quality.
- (2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing phosphoric acid through the transformation of phosphate-bearing minerals (the *phosphoric acid production activity*).
- (3) The metric in subsection (1) is not applicable to a facility which further processes the phosphoric acid into monoammonium phosphate or diammonium phosphate.
- (4) The best practice emissions intensity is 0.114 t CO₂-e per kilolitre of 100% equivalent phosphoric acid.

6 Subsection 13(2) of Schedule 1

Repeal the subsection, substitute:

-
- (2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing sodium cyanide through:
- (a) the chemical transformation of methane, anhydrous ammonia (NH₃) and air to produce hydrogen cyanide (HCN); and
 - (b) the chemical transformation of that hydrogen cyanide (HCN) and caustic soda to produce sodium cyanide (NaCN).

7 At the end of section 21 of Schedule 1

Add:

- (5) The best practice emissions intensity is 0.0204 t CO₂-e per tonne of manganese ore.

8 At the end of section 23A of Schedule 1

Add:

- (5) The best practice emissions intensity is 0.0105 t CO₂-e per tonne of lithium ore.

9 Subsection 28(4) of Schedule 1

Repeal the subsection, substitute:

- (4) However, the metric in subsection (1) is not applicable to a facility using another production variable in this Part (other than the reservoir CO₂ production variables in sections 35 and 35A).

10 At the end of section 29 of Schedule 1

Add:

- (4) The best practice emissions intensity is 0.000243 t CO₂-e per gigajoule of processed natural gas.

11 Subsection 30(4) of Schedule 1

Repeal the subsection, substitute:

- (4) However, the metric in subsection (1) is not applicable to a facility using another production variable in this Part (other than the reservoir CO₂ production variables in sections 35 and 35A or the processed natural gas (processing only) production variable in section 29).

12 At the end of section 30 of Schedule 1

Add:

- (6) The best practice emissions intensity is 0.000394 t CO₂-e per gigajoule of processed natural gas.

13 At the end of section 31 of Schedule 1

Add:

- (6) The best practice emissions intensity is 0.000876 t CO₂-e per gigajoule of liquefied natural gas.

14 Subsection 36(4) of Schedule 1

Repeal the subsection, substitute:

(4) In this Part:

carbon steel means material that:

- (a) contains by mass more iron (Fe) than any other single element; and
- (b) has a carbon (C) concentration less than 2%.

coke oven coke means the solid product obtained from the carbonisation of coal (principally coking coal) or other materials at a high temperature and includes coke breeze and foundry coke.

15 Section 41 of Schedule 1

Repeal the section, substitute:

41 Primary Steel

- (1) Subject to subsections (4) and (5), tonnes of continuously cast carbon steel products and ingots of carbon steel that:
 - (a) are produced as part of carrying on the primary steel 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 activity of producing continuously cast carbon steel products and ingots of carbon steel through the physical and chemical transformation of iron feed material into crude carbon steel products and hot-rolled carbon steel products.
- (3) The activity in subsection (2) is the **primary steel manufacturing activity**.

Examples: Smelting iron ore in a blast furnace to make pig iron, and then making carbon steel from the pig iron and added scrap metal using a basic oxygen furnace.

Making direct reduced iron from iron ore using direct reduction, and then making carbon steel from the iron using an electric arc furnace.

Note: Cold ferrous feed, such as scrap metal, can be used as a co-input in the primary steel manufacturing activity. Steel produced on a production line where cold ferrous feed is the only iron feed material does not meet the definition of primary steel and therefore section 44 is applicable.

- (4) For subsection (1), if the amount of coke oven coke imported into the facility to produce the continuously cast carbon steel products and ingots of carbon steel is equal to or greater than 5% of the total amount of coke oven coke consumed in carrying on the primary iron production activity, then tonnes of continuously cast carbon steel products and ingots of carbon steel are given by the following equation:

Tonnes of continuously cast carbon steel products and ingots of carbon steel =
 $Q_p + 0.900 Q_i$

where:

Q_p is the quantity of continuously cast carbon steel products and ingots of carbon steel that meet the requirements of subsection (1) and are not produced using coke oven coke imported into the facility.

Q_i is the quantity of continuously cast carbon steel products and ingots of carbon steel that meet the requirements of subsection (1) and are produced using coke oven coke imported into the facility.

Note 1: Q_p may or may not have been produced with coke oven coke.

Note 2: Q_p and Q_i do not need to be directly measured; they can be calculated from the consumed ratio of coke oven coke imported into the facility to coke oven coke used to produce continuously cast carbon steel products and ingots of carbon steel that meet the requirements in subsection (1), multiplied by the quantity of steel produced using coke oven coke.

Example: The facility produces 100,000 tonnes of continuously cast carbon steel products and ingots of carbon steel that meet the requirements in subsection (1). 50,000 tonnes of products were produced using an electric arc furnace process that does not use coke oven coke, 45,000 tonnes were produced using coke oven coke produced at the facility, and 5,000 tonnes were produced using coke oven coke imported to the facility. The amount of coke oven coke imported into the facility to produce the continuously cast carbon steel products and ingots of carbon steel is 10% of the total amount of coke oven coke consumed in carrying on the primary steel manufacturing activity. The metric is equal to $95,000 + 0.900 \times 5,000$, or 99,500 tonnes.

- (5) For subsection (1), if more than 30% (by iron content) of the total iron ore feed and cold ferrous feed to the facility is comprised of cold ferrous feed that is:
- (a) not produced by the facility, or
 - (b) produced at the facility and has not been counted as primary steel (section 41), or hot-rolled carbon steel long products (section 42), or hot-rolled carbon steel flat products (section 43),

then the tonnes of continuously cast carbon steel products and ingots of carbon steel are given by the following equation:

Tonnes of continuously cast carbon steel products and ingots of carbon steel = $(100\% - CFF_{adj}\%) \times Q$

where:

$CFF_{adj}\%$ is the percentage (by iron content) of the total iron ore feed and cold ferrous feed to the facility that is cold ferrous feed, minus 30%.

Q is the quantity of continuously cast carbon steel products and ingots of carbon steel that meet the requirements of subsection (1), taking into account any adjustments resulting from subsection (4).

Example: A facility produces steel from 95,000 tonnes of iron ore feed (comprised of 65,000 tonnes iron content) and 40,000 tonnes of cold ferrous feed (comprised of 35,000 tonnes iron content), which is all imported to the facility. From this feed, 90,000 tonnes of steel are produced. Therefore, 35% of the total feed to steelmaking comes from cold ferrous feed (e.g. $35,000 / (35,000 + 65,000)$), meaning that the adjustment in subsection (5) is required. $CFF_{adj}\%$ is equal to 5% (e.g. $35\% - 30\%$), and it follows that 95% (e.g. $100\% - 5\%$) of the steel manufactured by the facility meets the metric in subsection (1), assuming no adjustment was required by subsection (4), the metric is $95\% \times 90,000 = 85,500$ tonnes.

Note 1: As a result of subsection (5), if there is any steel produced at the facility that is not considered to meet the requirements of subsection (1), such as 4,500 tonnes in the example above, this steel meets the metric in subsection 44(3).

Note 2: Any iron made at the facility does not count as cold ferrous feed.

- (6) The default emissions intensity is 2.07 t CO₂-e per tonne of continuously cast carbon steel products and ingots of carbon steel.

16 Section 44 of Schedule 1

Repeal the section, substitute:

44 Continuously cast carbon steel products and ingots of carbon steel (manufacture of carbon steel from cold ferrous feed)

- (1) Tonnes of continuously cast carbon steel products and ingots of carbon steel that:
- (a) are produced as part of carrying on:
 - (i) the manufacture of carbon steel from cold ferrous feed activity at the facility; or
 - (ii) if subsection 41(5) applies to the facility – the primary steel manufacturing activity at the facility; and
 - (b) are of saleable quality.
- (2) The metric in subsection (1) is applicable to a facility that:
- (a) conducts the activity of the manufacture of carbon steel from cold ferrous feed; or
 - (b) if subsection 41(5) applies to the facility – conducts the primary steel manufacturing activity.
- (3) For subsection (1), if subsection 41(5) applies to the facility, then the metric in subsection (1) equals the sum of 1(a)(i) and 1(a)(ii), where 1(a)(ii) equals the tonnes of continuously cast carbon steel products and ingots of carbon steel that did not meet the requirements of subsection 41(5).
- Example: In the example for subsection 41(5), a facility manufactured 90,000 tonnes of steel from iron ore feed and cold ferrous feed. Given cold ferrous feed in this example exceeded 30% of total feed (by iron content), 85,500 tonnes are considered produced from the primary steel manufacturing activity. Therefore, the remaining 4,500 tonnes of steel is considered to meet the metric in subsection (1).
- (4) The default emissions intensity is 0.0981 t CO₂-e per tonne of continuously cast carbon steel products and ingots of carbon steel.

17 At the end of section 66 of Schedule 1

Add:

- (5) The best practice emissions intensity is 0.00237 t CO₂-e per tonne of quarried rock.

18 At the end of section 72 of Schedule 1

Add:

- (4) The best practice emissions intensity is 0.455 t CO₂-e per tonne of copper anode.

19 At the end of section 77 of Schedule 1

Add:

-
- (4) The best practice emissions intensity is 3.78 t CO₂-e per tonne of 100% equivalent nickel.

20 At the end of section 78 of Schedule 1

Add:

- (4) The best practice emissions intensity is 2.29 t CO₂-e per tonne of 100% equivalent nickel.

21 At the end of section 79 of Schedule 1

Add:

- (4) The best practice emissions intensity is 1.48 t CO₂-e per tonne of 100% equivalent nickel.

22 At the end of section 99 of Schedule 1

Add:

- (5) The default emissions intensity is 9.01 t CO₂-e per tonne of gaseous hydrogen.

23 At the end of section 103 of Schedule 1

Add:

- (3) The best practice emissions intensity is 0.980 t CO₂-e per kilolitre of renewable aviation kerosene.

24 At the end of section 104 of Schedule 1

Add:

- (3) The best practice emissions intensity is 0.558 t CO₂-e per kilolitre of renewable diesel.

25 At the end of Schedule 1

Add:

Part 51—Rare earth processing

105 Definitions

In this Part:

Rare earth elements means lanthanides (lanthanum (La), cerium (Ce), praseodymium (Pr), neodymium (Nd), samarium (Sm), europium (Eu), gadolinium (Gd), terbium (Tb), dysprosium (Dy), holmium (Ho), erbium (Er), thulium (Tm), ytterbium (Yb) and lutetium (Lu)), yttrium (Y) and scandium (Sc).

Rare earth oxides means oxides of rare earth elements, including mixtures of oxides of rare earth elements and rare earth elements.

Separated rare earth products means semi-separated or individual rare earth compounds.

106 Rare earth processing

- (1) Tonnes of total rare earth oxide (TREO) equivalent contained in separated rare earth products that:
 - (a) have weight by weight TREO greater than 95%; and
 - (b) are suitable quality and concentration as an input to a metallisation process (including via electrolysis); and
 - (c) are produced as part of carrying on the separated rare earth products production activity at the facility; and
 - (d) are of saleable quality.
- (2) The metric in subsection (1) is applicable to a facility that conducts the activity of producing separated rare earth products through the transformation of metal ore (the *separated rare earth products production activity*).
- (3) The best practice emissions intensity is 1.77 t CO₂-e per tonne of total rare earth oxide.