

CARBON BORDER ADJUSTMENT MECHANISM: SYSTEM BOUNDARIES DOCUMENT,
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DRAFT

DEFINITIONS

To determine embodied direct emissions within CBAM goods, as listed in Schedule 16 of the Finance Act the parameters for which production processes are relevant to the UK CBAM must be established. Those will be the same for both the use of actual monitoring, reporting and verification of actual embodied emissions as set out in [The Carbon Border Adjustment Mechanism (Emissions and Verification) Regulations 2026] and for default emissions values published by HM Treasury [currently unpublished].

The system boundaries of production processes must be used alongside relevant data including (1) emissions at the installation level; (2) the attribution of emissions to production processes; and (3) emissions embodied within CBAM goods for the determination of embodied emissions as required for the fulfilment of reporting obligations under the CBAM. Where relevant, liable persons must acquire this required information from the operators of installations producing the relevant CBAM goods imported to the UK.

This document details the system boundaries relevant to all CBAM goods.

For the purpose of this 'system boundaries' document, the following definitions apply:

- (1) 'biogas' means gaseous fuels produced from biomass;
- (2) 'biomass' means the biodegradable fraction of products, waste and residues from biological origin from agriculture, including vegetal and animal substances, from forestry and related industries, including fisheries and aquaculture, as well as the biodegradable fraction of waste, including industrial and municipal waste of biological origin
- (3) 'combustion emissions' means greenhouse gas emissions occurring during the exothermic reaction of a fuel with oxygen;
- (4) 'complex good' means a good made using one or more precursor goods.
- (5) 'direct emissions' means emissions related to the production processes of CBAM goods. This includes (but is not limited to) emissions from the production of heating and cooling consumed during the production processes, irrespective of whether the heating or cooling was produced on or off site.
- (6) 'functional unit' means the amount of goods produced in tonnes (t) classified under the same commodity code. This term is referred to as 'weight' in accordance with [Regulation 2 of The Carbon Border Adjustment Mechanism (Emissions and Verification) Regulations 2026]. Exceptions to this are as follows:

For fertilisers, the following shall constitute the functional unit:

- a. for commodity codes 2808 00 00, 2814, 3105, the kilograms of nitrogen contained in the goods under the respective commodity codes;

- b. for the commodity codes of fertiliser other than the ones listed in point (a) above, the supplementary units as laid down in the CBAM regulations of the goods produced under the respective commodity codes.

For commodity codes 2523 10 00, 2523 21 00, 2523 29 00, and 2523 90 00 , the tonnes of clinker contained in the goods produced under the respective commodity codes shall constitute the functional unit.

- (7) 'perfluorocarbons' means tetrafluoromethane and hexafluoroethane.
- (8) 'process emissions' means greenhouse gas emissions other than combustion emissions occurring as a result of intentional and unintentional reactions between substances or their transformation, for a primary purpose other than the generation of heat, including from the following processes:
 - a) the chemical, electrolytic or pyrometallurgical reduction of metal compounds in ores, concentrates and secondary materials;
 - b) the removal of impurities from metals and metal compounds;
 - c) the decomposition of carbonates, including those used for flue gas cleaning;
 - d) chemical syntheses of products and intermediate products where the carbon bearing material participates in the reaction;
 - e) the use of carbon containing additives or raw materials;
 - f) the chemical or electrolytic reduction of metalloid oxides or non-metal oxides such as silicon oxides and phosphates;
- (9) 'production process' means the chemical or physical processes carried out in parts of an installation to produce goods under an aggregated goods category defined in Table 1 of Section 2 of this document, and its specified system boundaries regarding inputs, outputs, and corresponding emissions;
- (10) 'production route' means a specific technology used in a production process to produce goods;
- (11) 'residue' means a substance that is not the end product that a production process directly seeks to produce; it is not a primary aim of the production process and the process has not been deliberately modified to produce it;
- (12) 'waste' means any substance or object which the holder discards or intends or is required to discard, excluding substances that have been intentionally modified or contaminated in order to meet this definition;
- (13) 'waste gas' means a gas containing incompletely oxidised carbon in a gaseous state under standard conditions which is a result of any of the processes listed in point;

1. MAPPING OF COMMODITY CODES TO AGGREGATED GOODS CATEGORIES

Table 1 defines aggregated goods categories and relevant greenhouse gases for each commodity code listed in the Schedule 16 of the Finance Act 2026. These categories are used to define system boundaries of production processes of CBAM goods.

Table 1 - Mapping of commodity codes to aggregated goods categories

Commodity Code	Classification	Aggregated goods category	Greenhouse gas
ALUMINIUM GOODS			
7601	Unwrought aluminium	Unwrought aluminium	Carbon dioxide and perfluorocarbons,
7603	Aluminium powders and flakes	Aluminium products	Carbon dioxide and perfluorocarbons
7604	Aluminium bars, rods and profiles		
7605	Aluminium wire		
7606	Aluminium plates, sheets and strip, of a thickness exceeding 0.2 mm		
7607	Aluminium foil (whether or not printed or backed with paper, paper-board, plastics or similar backing materials) of a thickness (excluding any backing) not exceeding 0.2 mm		
7608	Aluminium tubes and pipes		
7609 00 00	Aluminium tube or pipe fittings (for example, couplings, elbows, sleeves)		
7610	Certain Aluminium structures (excluding prefabricated buildings of heading 9406) and parts of structures (for example, bridges and bridge-sections, towers, lattice masts, roofs, roofing frameworks, doors and windows and their frames and		

	thresholds for doors, balustrades, pillars and columns); aluminium plates, rods, profiles, tubes and the like, prepared for use in structures		
7611 00 00	Aluminium reservoirs, tanks, vats and similar containers, for any material (other than compressed or liquefied gas), of a capacity exceeding 300 litres, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment		
7612	Aluminium casks, drums, cans, boxes and similar containers (including rigid or collapsible tubular containers), for any material (other than compressed or liquefied gas), of a capacity not exceeding 300 litres whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment		
7613 00 00	Aluminium containers for compressed or liquefied gas		
7614	Stranded wire, cables, plaited bands and the like, of aluminium, not electrically insulated		
7616	Other articles of aluminium		
CEMENT			
2507 00 80	Other kaolinic clays	Calcined clay	Carbon dioxide

2523 10 00	Cement clinkers	Cement clinker	Carbon dioxide
2523 21 00	White Portland cement, whether or not artificially coloured	Cement	Carbon dioxide
2523 29 00	Other Portland cement	Cement	Carbon dioxide
2523 30 00	Aluminous cement	Aluminous cement	Carbon dioxide
2523 90 00	Other hydraulic cements	Cement	Carbon dioxide
FERTILISERS			
2808 00 00	Nitric acid; sulphonitric acids	Nitric acid	Carbon dioxide and nitrous oxide
2814	Ammonia, anhydrous or in aqueous solution	Ammonia	Carbon dioxide
2834 21 00	Nitrates of potassium	Mixed fertilisers	Carbon dioxide and nitrous oxide
3102 <i>Except: 3102 10</i>	Mineral or chemical fertilisers, nitrogenous <i>Except: Urea</i>	Mixed fertilisers	Carbon dioxide and nitrous oxide
3102 10	Urea, whether or not in aqueous solution	Urea	Carbon dioxide
3015 <i>Except 3015 60</i>	Mineral or chemical fertilisers containing two or three of the fertilising elements nitrogen, phosphorus and potassium; other fertilisers; goods of this chapter in tablets or similar forms or in packages of a gross weight not exceeding 10 kg <i>Except: Mineral or chemical fertilisers containing the two fertilising elements phosphorus and potassium</i>	Mixed fertilisers	Carbon dioxide and nitrous oxide
HYDROGEN			
2804 10 00	Hydrogen	Hydrogen	Carbon dioxide
IRON AND STEEL GOODS			

2601 12	Agglomerated iron ores and concentrates, other than roasted iron pyrites	Sintered Ore	Carbon dioxide
7201	Pig iron and spiegeleisen in pigs, blocks, or other primary forms Some products under 7205 (Granules and powders, of pig iron, spiegeleisen, iron, or steel) may be covered here	Pig Iron	Carbon dioxide
7202 1	Ferro-manganese	FeMn	Carbon dioxide
7202 4	Ferro-chromium	FeCr	Carbon dioxide
7202 6	Ferro-nickel	FeNi	Carbon dioxide
7203	Ferrous products obtained by direct reduction of iron ore and other spongy ferrous products	DRI	Carbon dioxide
7206	Iron and non-alloy steel in ingots or other primary forms (excluding iron of heading 7203)	Crude steel	Carbon dioxide
7207	Semi-finished products of iron or non-alloy steel		
7218	Stainless steel in ingots or other primary forms; semi-finished products of stainless steel		
7224	Other alloy steel in ingots or other primary forms; semi-finished products of other alloy steel		
7205	Granules and powders, of pig iron, spiegeleisen, iron or steel (if not covered under category pig iron)	Iron or steel products	Carbon dioxide
7208	Flat-rolled products of iron or non-alloy steel, of a width of 600 mm or more, hot-		

	rolled, not clad, plated or coated		
7209	Flat-rolled products of iron or non-alloy steel, of a width of 600 mm or more, cold-rolled (cold-reduced), not clad, plated or coated		
7210	Flat-rolled products of iron or non-alloy steel, of a width of 600 mm or more, clad, plated or coated		
7211	Flat-rolled products of iron or non-alloy steel, of a width of less than 600 mm, not clad, plated or coated		
7212	Flat-rolled products of iron or non-alloy steel, of a width of less than 600 mm, clad, plated or coated		
7213	Bars and rods, hot-rolled, in irregularly wound coils, of iron or non-alloy steel		
7214	Other bars and rods of iron or non-alloy steel, not further worked than forged, hot-rolled, hot-drawn or hot-extruded, but including those twisted after rolling		
7215	Other bars and rods of iron or non-alloy steel		
7216	Angles, shapes and sections of iron or non-alloy steel		
7217	Wire of iron or non-alloy steel		
7219	Flat-rolled products of stainless steel, of a width of 600 mm or more		

7220	Flat-rolled products of stainless steel, of a width of less than 600 mm		
7221	Bars and rods, hot-rolled, in irregularly wound coils, of stainless steel		
7222	Other bars and rods of stainless steel; angles, shapes and sections of stainless steel		
7223	Wire of stainless steel		
7225	Flat-rolled products of other alloy steel, of a width of 600 mm or more		
7226	Flat-rolled products of other alloy steel, of a width of less than 600 mm		
7227	Bars and rods, hot-rolled, in irregularly wound coils, of other alloy steel		
7228	Other bars and rods of other alloy steel; angles, shapes and sections, of other alloy steel; hollow drill bars and rods, of alloy or non-alloy steel		
7229	Wire of other alloy steel		
7301	Sheet piling of iron or steel, whether or not drilled, punched or made from assembled elements; welded angles, shapes and sections, of iron or steel		
7302	Railway or tramway track construction material of iron or steel, the following: rails, check-rails and rack rails, switch		

	blades, crossing frogs, point rods and other crossing pieces, sleepers (cross-ties), fish-plates, chairs, chair wedges, sole plates (base plates), rail clips, bedplates, ties and other material specialised for jointing or fixing rails		
7303	Tubes, pipes and hollow profiles, of cast iron		
7304	Tubes, pipes and hollow profiles, seamless, of iron (other than cast iron) or steel		
7305	Other tubes and pipes (for example, welded, riveted or similarly closed), having circular cross-sections, the external diameter of which exceeds 406.4 mm, of iron or steel		
7306	Other tubes, pipes and hollow profiles (for example, open seam or welded, riveted or similarly closed), of iron or steel		
7307	Tube or pipe fittings (for example, couplings, elbows, sleeves), of iron or steel		
7308	Structures (excluding prefabricated buildings of heading 9406) and parts of structures (for example, bridges and bridge-sections, lock-gates, towers, lattice masts, roofs, roofing frameworks,		

	doors and windows and their frames and thresholds for doors, shutters, balustrades, pillars and columns), of iron or steel; plates, rods, angles, shapes sections, tubes and the like, prepared for use in structures, of iron or steel		
7309	Reservoirs, tanks, vats and similar containers for any material (other than compressed or liquefied gas), of iron or steel, of a capacity exceeding 300 litres, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment		
7310	Tanks, casks, drums, cans, boxes and similar containers, for any material (other than compressed or liquefied gas), of iron or steel, of a capacity not exceeding 300 litres, whether or not lined or heat-insulated, but not fitted with mechanical or thermal equipment		
7311	Containers for compressed or liquefied gas, of iron or steel		
7318	Screws, bolts, nuts, coach screws, screw hooks, rivets, cotters, cotter pins, washers (including spring washers) and similar		

	articles, of iron or steel		
7326	Other articles of iron or steel		

2. SYSTEM BOUNDARIES

a. Cross-sectoral rules

Guidance note: Embodied direct emissions of CBAM goods should include the emissions of the production process and, for complex goods, the embodied direct emissions of the precursors to produce the functional unit of the good. The system boundaries are defined per aggregated goods categories and cover the direct emissions emitted by all processes directly or indirectly linked to the production processes, and the embodied emissions of precursors, independently of whether these precursors are produced in the installation or acquired from a different installation.

The details of each aggregated goods category are set out below in points 3.2 to 3.18. Any CBAM goods produced by means of a production route not listed in points 3.2 to 3.18 is subject to the cross-sectoral rules described in this point, and to the sector-specific rules if the production route is a combination of the production routes listed in points 3.2 to 3.18.

The purchase and maintenance of infrastructure and equipment are excluded from the system boundaries.

Aluminium goods

3.2 Unwrought aluminium

3.2.1 Special provisions

None.

3.2.2 System boundary

a) Primary (electrolytic) smelting

For the primary (electrolytic) smelting production route, direct emissions monitoring shall take into account:

- all processes directly or indirectly linked to the production processes emitting CO₂ emissions from the consumption of electrodes or electrode pastes;
- all processes directly or indirectly linked to the production processes emitting CO₂ emissions from any fuels used (e.g. for drying and pre-heating of raw materials, heating of electrolysis cells, heating required for casting);

- all processes directly or indirectly linked to the production processes emitting CO₂ emissions from any flue gas treatment, from soda ash or limestone if relevant;
- perfluorocarbon emissions caused by anode effects monitored in accordance with [point B.7 of The Carbon Border Adjustment Mechanism (Emissions and Verification) Force of Law Notice made under (Emissions and Verification Part 1-4) Regulations].

Relevant precursors: None.

b) Secondary melting (recycling)

Secondary melting (recycling) of aluminium uses aluminium scrap as main input. However, where unwrought aluminium from other sources is added, it is treated like a precursor.

For the secondary melting (recycling) production route, direct emissions monitoring shall take into account:

- all processes directly or indirectly linked to the production processes emitting CO₂ emissions from any fuels used for drying and pre-heating of raw materials, used in melting furnaces, in pre-treatment of scrap such as de-coating and de-oiling, and combustion of the related residues, and fuels required for casting of ingots, billets or slabs;
- all processes directly or indirectly linked to the production processes emitting CO₂ emissions from any fuels used in associated activities such as treatment of skimmings and slag recovery;
- all processes directly or indirectly linked to the production processes emitting CO₂ emissions from any flue gas treatment, from soda ash or limestone if relevant.

Relevant precursors:

- Unwrought aluminium from other sources, if used in the process.

3.3 Aluminium products

3.3.1 Special Provisions

None

3.3.2 System boundary

For aluminium products, direct emissions monitoring shall take into account:

- all processes directly or indirectly linked to the production processes emitting CO₂ emissions from combustion of fuels and process emissions from flue gas treatment, excluding the following processes: cutting, welding and finishing of aluminium products.

Relevant precursors:

- unwrought aluminium, if used in the production process (treat primary and secondary aluminium separately, if data is known);
- aluminium products, if used in the production process.

Cement

3.4 Calcined clay

3.4.1 Special provisions

Clays falling under commodity code 2507 00 80 which are not calcined are assigned embedded emissions of zero. They shall be included in the CBAM report, but no additional information from the producer of the clay is required. The below system boundary relates only to calcined clays falling under that commodity code.

3.4.2 System boundary

System boundary:

For calcined clay, direct emissions monitoring shall encompass:

- all processes directly or indirectly linked to the production processes, such as raw material preparation, mixing, drying, and calcining, and flue gas cleaning;
- CO₂ emissions from the combustion of fuels as well as from raw materials, where relevant.

Relevant precursors: none.

3.5 Cement clinker

3.5.1 Special provisions

No distinction shall be made between grey and white cement clinker.

3.5.2 System boundary

For cement clinker, direct emissions monitoring shall take into account:

- calcination of limestone and other carbonates in the raw materials, conventional fossil kiln fuels, alternative fossil-based kiln fuels and raw materials, biomass kiln fuels (such as waste-derived fuels), nonkiln fuels, non-carbonate carbon content in raw materials, or alternative raw materials such as fly ash used in the raw meal in the kiln and raw materials used for flue gas scrubbing;
- the additional provisions of point [B.9.2.2 of The Carbon Border Adjustment Mechanism (Emissions and Verification) Force of Law Notice made under (Emissions and Verification Part 1-4) Regulations].

Relevant precursors: none.

3.6 Cement

3.6.1 Special provisions

None

3.6.2 System boundary

For cement, direct emissions monitoring shall take into account:

- all processes directly or indirectly linked to the production processes, where relevant for drying of materials.

Relevant precursors:

- Cement clinker;
- Calcined clay, if used in the process

3.7 Aluminous cement

3.7.1 Special provisions

None

3.7.2 System boundary

For aluminous cement, direct emissions monitoring shall take into account:

- all processes directly or indirectly linked to the production processes where fuel is combusted;
- process emissions from carbonates in raw materials, if applicable, and flue gas cleaning.

Relevant precursors: none.

Fertilisers

3.8 Nitric acid

3.8.1 Special provisions

None

3.8.2 System boundary

For nitric acid, direct emissions monitoring shall take into account:

- all processes directly or indirectly linked to the production processes, and from flue gas cleaning;
- all sources emitting N₂O from the production process, including unabated and abated emissions. Any N₂O emissions from the combustion of fuels are excluded from monitoring.

Relevant precursors: ammonia (as 100% ammonia).

3.9 Ammonia

3.9.1 Special provisions

None

3.9.2 System boundary

- a) Haber-Bosch process with steam reforming of natural gas or biogas

For that production route, direct emissions monitoring shall encompass:

- all processes directly or indirectly linked to the production processes, and from flue gas cleaning;
- all fuels are to be monitored, irrespective of whether used as energetic or non-energetic input;
- where biogas is used, the provisions of point [B.3.3 of The Carbon Border Adjustment Mechanism (Emissions and Verification) Force of Law Notice made under (Emissions and Verification Part 1-4) Regulations] shall be taken into account.

- b) Haber-Bosch process with gasification of coal or other fuels

That production route applies where hydrogen is produced by gasification of coal, heavy refinery fuels or other fossil feedstock. Input materials may include biomass, for which the provisions of point [B.3.3 of The Carbon Border Adjustment Mechanism (Emissions and Verification) Force of Law Notice made under (Emissions and Verification Part 1-4) Regulations] shall be taken into account.

For that production route, direct emissions monitoring shall encompass:

- all processes directly or indirectly linked to the production processes, and from flue gas cleaning;
- each fuel input shall be monitored as one fuel stream, irrespective of whether it is used as energetic or non-energetic input.

Relevant precursors: separately produced hydrogen, if used in the process.

3.10 Mixed fertilisers

3.10.1 Special provisions

This point applies to the production of all kinds of nitrogen-containing fertilisers, including ammonium nitrate (CN 310230), calcium ammonium nitrate (CN 3102 4010 00), ammonium sulphate (CN 310221), ammonium phosphates (CN 310530 and 310540), urea ammonium nitrate solutions (CN 310280), as well as nitrogen-

phosphorus (NP) (CN 310551 and CN 310559), nitrogen-potassium (NK) (CN 310590) and nitrogen-phosphorus-potassium (NPK) (CN 310520) fertilisers.

The amounts of different nitrogen compounds contained in the final product shall be recorded in accordance with Regulation (EU) 2019/1009 of the European Parliament and of the Council as it forms part of assimilated law:

- content of N as ammonium (NH₄⁺);
- content of N as nitrate (NO₃⁻);
- content of N as Urea;
- content of N in other (organic) forms.

3.10.2 System boundary

All kinds of operations are included such as mixing, neutralisation, granulation, prilling, irrespective of whether only physical mixing or chemical reactions take place.

For mixed fertilisers, direct emissions monitoring shall encompass:

- all processes directly or indirectly linked to the production processes, such as driers and for heating input materials, and from flue gas cleaning.

Relevant precursors:

- ammonia (as 100 % ammonia), if used in the process;
- nitric acid (as 100 % nitric acid), if used in the process;
- urea, if used in the process;
- mixed fertilisers (in particular salts containing ammonium or nitrate), if used in the process.

3.11 Urea

3.11.1 Special provisions

None

3.11.2 System boundary

For urea, direct emissions monitoring shall take into account:

- all processes directly or indirectly linked to the production processes, and from flue gas cleaning;
- where CO₂ is received from another installation as process input, the CO₂ received shall be considered an embodied emission in the imported urea.

Relevant precursors: ammonia (as 100% ammonia).

Hydrogen

3.12 Hydrogen

3.12.1 Special provisions

Only the production of pure hydrogen or mixtures of hydrogen with nitrogen usable in ammonia production shall be considered. Not covered is production of hydrogen within a refinery or organic chemical installation and where this hydrogen is exclusively used within that refinery or installation.

3.12.2 System boundary

a) Steam reforming and partial oxidation

For those production routes, direct emissions monitoring shall take into account:

- all processes directly or indirectly linked to hydrogen production and the separation of hydrogen and carbon monoxide, and flue gas cleaning;
- all fuels used in the hydrogen production process irrespective of their energetic or non-energetic use, and fuels used for other combustion processes including for the purpose of producing hot water or steam.

b) Steam cracking

For that production route, direct emissions monitoring shall take into account:

- all processes directly linked to hydrogen production;
- all processes directly or indirectly linked to the production processes, and from flue gas cleaning.

Relevant precursors: none.

Iron and steel goods

3.13 Sintered Ore

3.13.1 Special provisions

This aggregated goods category includes all kinds of iron ore pellet production (for sale of pellets as well as for direct use in the same installation) and sinter production. To the extent covered by commodity code 2601 12 00, also iron ores used as precursors for ferro-chromium (FeCr), ferro-manganese (FeMn) or ferro-nickel (FeNi) may be covered.

3.13.2 System boundary

For sintered ore, direct emissions monitoring shall encompass:

- all processes emitting CO₂ from process materials such as limestone and other carbonates or carbonate ores;
- all processes emitting CO₂ from all fuels including coke, waste gases such as coke oven gas, blast furnace gas or converter gas; directly or indirectly linked to the production process, and materials used for flue gas cleaning.

Relevant precursors: none.

3.14 Pig Iron

3.14.1 Special provisions

This aggregated goods category includes non-alloyed pig iron from blast furnaces as well as alloy-containing pig irons (e.g., spiegeleisen), irrespective of the physical form (e.g. ingots, granules). NPI (nickel pig iron) is included if the nickel content is lower than 10 %. In integrated steel plants, liquid pig iron ('hot metal') directly charged to the oxygen converter is the product which separates the production process for pig iron from the production process of crude steel. Where the installation does not sell or transfer pig iron to other installations, a joint production process including crude steel can be established making subject to the rules of [A.1.2 of TERTIARY]

3.13.2 System boundary

a) Blast furnace route

For that production route, direct emissions monitoring shall encompass:

- all processes directly or indirectly linked to the production processes emitting CO₂ from fuels and reducing agents such as coke, coke dust, coal, fuel oils, plastic wastes, natural gas, wood wastes, charcoal, as well as from waste gases such as coke oven gas, blast furnace gas or converter gas;
- where biomass is used, the provisions of point [B.3.3 The Carbon Border Adjustment Mechanism (Emissions and Verification) Force of Law Notice made under (Emissions and Verification Part 1-4) Regulations]. shall be taken into account;
- all processes directly or indirectly linked to the production processes emitting CO₂ from process materials such as limestone, magnesite, and other carbonates, carbonate ores; materials for flue gas cleaning;
- carbon remaining in the product or in slags or wastes is taken into account by using a mass balance method in accordance with point B.3.2 of CBAM Notice Made Under (Emissions and Verification Part 1-4) Regulations].

Relevant precursors:

- sintered ore;
- pig iron or direct reduced iron (DRI) from other installations or production processes, if used in the process;
- FeMn, FeCr, FeNi if used in the process;
- hydrogen if used in the process.

b) Smelting reduction

For this production route, direct emissions monitoring shall encompass:

- all processes directly or indirectly linked to the production processes emitting CO₂ from fuels and reducing agents such as coke, coke dust, coal, fuel oils, plastic wastes, natural gas, wood wastes, charcoal, waste gases from the process or converter gas;
- where biomass is used, the provisions of point [B.3.3 of The Carbon Border Adjustment Mechanism (Emissions and Verification) Force of Law Notice made under (Emissions and Verification Part 1-4) Regulations] shall be taken into account;
- all processes directly or indirectly linked to the production processes emitting CO₂ from process materials such as limestone, magnesite, and other carbonates, carbonate ores; materials for flue gas cleaning;
- carbon remaining in the product or in slags or wastes is taken into account by using a mass balance method in accordance with point [B.3.2 of The Carbon Border Adjustment Mechanism (Emissions and Verification) Force of Law Notice made under (Emissions and Verification Part 1-4) Regulations].

3.15 FeMn (Ferro-Manganese), FeCr (Ferro-Chromium) and FeNi (Ferro-Nickel)

3.15.1 Special provisions

This process covers only the production of the alloys identified under commodity codes 7202 1, 7202 4 and 7202 6. Other iron materials with significant alloy content such as spiegeleisen are not covered. NPI (nickel pig iron) is included if the nickel content is greater than 10 %. Where waste gases or other flue gases are emitted without abatement, CO contained in the waste gas shall be considered as the molar equivalent of CO₂ emissions.

3.15.2 System boundary

For FeMn, FeCr and FeNi, direct emissions monitoring shall encompass:

- all processes directly or indirectly linked to the production processes emitting CO₂ emissions caused by fuel inputs, irrespective of whether they are used for energetic or non-energetic use;
- all processes directly or indirectly linked to the production processes emitting CO₂ emissions from
 - process inputs such as limestone and from flue gas cleaning;
- all processes directly or indirectly linked to the production processes emitting CO₂ emissions from the consumption of electrodes or electrode pastes;
- carbon remaining in the product or in slags or wastes is taken into account by using a mass balance method in accordance with point [B.3.2 of The Carbon Border Adjustment Mechanism (Emissions and Verification) Force of Law Notice made under (Emissions and Verification Part 1-4) Regulations].

Relevant precursors: Sintered ore, if used in the process.

3.16 DRI

3.16.1 Special provisions

There is only one production route defined, although different technologies may use different qualities of ores, which may require pelletisation or sintering, and different reducing agents (natural gas, diverse fossil fuels or biomass, hydrogen). Therefore, precursors sintered ore or hydrogen may be relevant. As products, iron sponge, hot briquetted iron (HBI) or other forms of direct reduced iron may be relevant, including DRI which is immediately fed to electric arc furnaces or other downstream processes.

Where the installation does not sell or transfer DRI to other installations, a joint production process including steel can be established making subject to the rules of [A.1.2 of TERTIARY].

3.16.2 System boundary

For that production route, direct emissions monitoring shall encompass:

- all processes directly or indirectly linked to the production processes emitting CO₂ from fuels and reducing agents such as coal, natural gas, fuel oils, waste gases from the process or converter gas, etc.;
- where biogas or other forms of biomass are used, the provisions of point [B.3.3 of The Carbon Border Adjustment Mechanism (Emissions and Verification) Force of Law Notice made under (Emissions and Verification Part 1-4) Regulations] shall be taken into account;
- all processes directly or indirectly linked to the production processes emitting CO₂ from process materials such as limestone, magnesite, and other carbonates, carbonate ores, materials for flue gas cleaning;
- carbon remaining in the product or in slags or wastes is taken into account by using a mass balance method in accordance with point [B.3.2 of The Carbon Border Adjustment Mechanism (Emissions and Verification) Force of Law Notice made under (Emissions and Verification Part 1-4) Regulations].

Relevant precursors:

- sintered ore, if used in the process;
- hydrogen, if used in the process;
- pig iron or DRI from other installations or production processes, if used in the process;
- FeMn, FeCr, FeNi if used in the process.

3.17 Crude steel

3.17.1 Special provisions

The system boundary shall cover all necessary activities and units for obtaining crude steel:

- if the process starts from hot metal (liquid pig iron), the system boundary shall include the basic oxygen converter, vacuum degassing, secondary metallurgy, argon oxygen decarburisation / vacuum oxygen decarburisation, continuous casting or ingot casting, where relevant hot-rolling or forging, and all necessary auxiliary activities such as transfers, re-heating, and flue gas cleaning;
- if the process uses an electric arc furnace, the system boundary shall include all relevant activities and units such as the electric arc furnace itself, secondary metallurgy, vacuum degassing, argon oxygen decarburisation / vacuum oxygen decarburisation, continuous casting or ingot casting, where relevant hot-rolling or forging, and all necessary auxiliary activities such as transfers, heating of raw materials and equipment, re-heating, and flue gas cleaning;
- only primary hot-rolling and rough shaping by forging to obtain the semi-finished products under commodity codes 7207, 7218 and 7224 are included in this aggregated goods category. All other rolling and forging processes are included in the aggregated goods category 'iron or steel products'.

3.17.2 System boundary

a) Basic oxygen steelmaking

For that production route, direct emissions monitoring shall encompass:

- all processes directly or indirectly linked to the production processes emitting CO₂ from fuels such as coal, natural gas, fuel oils, waste gases such as blast furnace gas, coke oven gas or converter gas;
- all processes directly or indirectly linked to the production processes emitting CO₂ from process materials such as limestone, magnesite, and other carbonates, carbonate ores; materials for flue gas cleaning;
- carbon entering the process in scrap, alloys, graphite etc. and carbon remaining in the product or in slags or wastes is taken into account by using a mass balance method in accordance with point [B.3.2 of The Carbon Border Adjustment Mechanism (Emissions and Verification) Force of Law Notice made under (Emissions and Verification Part 1-4) Regulations].

Relevant precursors:

- pig iron, DRI, if used in the process;
- FeMn, FeCr, FeNi if used in the process;
- crude steel from other installations or production processes if used in the process.

b) Electric arc furnace

For that production route, direct emissions monitoring shall take into account:

- all processes directly or indirectly linked to the production processes emitting CO₂ from fuels such as coal, natural gas, fuel oils, as well as from waste gases such as blast furnace gas, coke oven gas or converter gas;
- all processes directly or indirectly linked to the production processes emitting CO₂ from the consumption of electrodes and electrode pastes;
- all processes directly or indirectly linked to the production processes emitting CO₂ from process materials such as limestone, magnesite, and other carbonates, carbonate ores; materials for flue gas cleaning;
- carbon entering the process, e.g. in the form of scrap, alloys and graphite, and carbon remaining in the product or in slags or wastes is taken into account by using a mass balance method in accordance with point [B.3.2 of The Carbon Border Adjustment Mechanism (Emissions and Verification) Force of Law Notice made under (Emissions and Verification Part 1-4) Regulations].

Relevant precursors:

- pig iron, DRI, if used in the process;
- FeMn, FeCr, FeNi if used in the process;
- crude steel from other installations or production processes if used in the process.

3.18 Iron and steel products

3.18.1 Special provision

None

3.18.2 System boundary

For iron or steel products, direct emissions monitoring shall take into account:

- all processes directly or indirectly linked to the production processes emitting CO₂ emissions from combustion of fuels and process emissions from flue gas treatment, including re-heating, re-melting, casting, hot rolling, cold rolling, forging, annealing, coating, galvanizing, wire drawing, pickling and excluding the following processes: plating, cutting, welding and finishing of iron or steel products.

Relevant precursors:

- crude steel, if used in the process;
- pig iron, DRI, if used in the process;
- FeMn, FeCr, FeNi, if used in the process;
- iron or steel products, if used in the process.

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