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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 32151.18-2024

Greenhouse gas emission accounting and reporting requirements - Part 18: Forging enterprises

温室气体排放核算与报告要求 第18部分：锻造企业

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Standardization Administration of the PRC**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part

1.Structure and drafting rules for standardization documents" Drafting. This document is Part 18 of GB/T 32151 Greenhouse Gas Emissions Accounting and Reporting Requirements. Lower part.

1.Power generation enterprises;

2.Grid enterprises;

3.Magnesium smelting enterprises;

4.Aluminium smelting enterprises;

5.Iron and steel production enterprises;

6.Civil aviation enterprises;

7.Flat glass production enterprises;

8.Cement production enterprises;

9.Ceramic production enterprises;

10.Chemical production enterprises;

11.Coal production enterprises;

12.Textile and clothing enterprises;

1 Scope

China's national requirements for greenhouse gas emission accounting and reporting by forging enterprises. It is Part 18 of GB/T 32151 and specifies the accounting boundary, the measurement and monitoring requirements, the calculation steps and methods, the data quality management, and the content and format of the report, with informative annexes giving a diagram of the accounting boundary for a forging enterprise, a report format template, default values for the relevant parameters, and a data quality control plan template. GB/T 32151 is the framework under which Chinese enterprises calculate and report their emissions, and it is written sector by sector because the emissions of a sector arise in ways particular to it. For a forging enterprise the great majority arise from heating: billets are heated to forging temperature in furnaces fired by gas or oil or heated by induction, and they are heat treated afterwards. So the accounting divides into direct emissions from fuel combustion in those furnaces and indirect emissions from the electricity and heat purchased, with electricity dominating where induction heating is used and fuel dominating where it is not. That division matters commercially, because it determines what a reduction measure is worth: replacing a gas furnace with induction heating moves emissions from the direct account to the indirect one, and whether that is a reduction depends entirely on the emission factor of the grid supplying it. The accounting boundary diagram in Annex A is therefore the part of the document that decides the answer, and the default parameter values in Annex C are what allow a company without its own measurements to produce a defensible figure. Issued on 31 December 2024 and in force since 1 July 2025.

This document specifies the accounting boundaries, measurement and monitoring requirements, accounting steps and verification requirements of carbon emissions of forging enterprises (hereinafter referred to as "enterprises"). calculation methods, data quality management, and report content and format. This document applies to the accounting and reporting of carbon emissions of forging enterprises.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document. For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 213 Method for determination of calorific value of coal

GB/T 384 Determination of calorific value of petroleum products

GB/T 6422 Guidelines for energy testing of energy-consuming equipment

GB/T 8541 Forging Terminology

GB/T 15316 General technical rules for energy conservation monitoring

GB 17167 General rules for the allocation and management of energy metering instruments in energy-consuming units

GB/T 22723 Determination of energy of natural gas

GB/T 32150 General principles for accounting and reporting of greenhouse gas emissions from industrial enterprises

3 Terms and definitions

The terms and definitions defined in GB/T 8541 and GB/T 32150 and the following apply to this document.

3.1 Greenhouse gas The natural and human-caused gases in the atmosphere that absorb and emit radiation from the Earth's surface, atmosphere, and clouds. The gaseous component of radiation with wavelengths in the infrared spectrum.

Note. The greenhouse gases referred to in this document include only carbon dioxide (CO2). [Source: GB/T 32150-2015, 3.1, modified]

3.2 Carbon emission The process of releasing greenhouse gases into the atmosphere over a specific period of time.

Note. The type of greenhouse gas emissions from enterprises in this document is carbon dioxide (CO2), which mainly includes direct and indirect emissions caused by fossil fuel combustion and purchased electricity and heat. direct carbon dioxide emissions (CO2).

3.3 Activities that quantify carbon emissions (3.2) according to certain procedures and calculation methods.