Chinastandards.org

ICS 77
CCS Q 50

chinastandards.org - PREVIEW

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 32151.34-2024

Greenhouse gas emission accounting and reporting requirements - Part 34: Carbon material production enterprises

温室气体排放核算与报告要求 第34部分：炭素材料生产企业

Issued on: August 23, 2024 **Implemented on: March 1, 2025**

Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC

Preview: page 1 of 4 shown, 36 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-32151-34-2024

Table of Contents

chinastandards.org · PREVIEW

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 34 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;

1 Scope

China's national requirements for greenhouse gas emission accounting and reporting by

Preview: page 2 of 4 shown, 36 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-32151-34-2024

carbon material production enterprises. It is Part 34 of GB/T 32151 and specifies the accounting boundary, the calculation steps and methods, the data quality management, and the content and format of the report, with a schematic of the accounting boundary for a typical carbon material plant, a report format template, default parameter values, a data quality control plan template, and a normative annex on the value requirements and supporting documents for the emission factor of non-fossil energy electricity. Carbon materials are the graphite electrodes used in electric arc steelmaking, the carbon anodes consumed in aluminium smelting, and the specialty graphites used in nuclear, semiconductor and battery applications. Their production has an emissions profile shared with almost no other sector, for two reasons. The first is that the raw material is carbon: petroleum coke and coal tar pitch are calcined, mixed, formed and baked, and a substantial fraction of the carbon put in leaves as carbon dioxide rather than as product - the volatile matter driven off during calcination and baking is burnt, and the binder pitch loses much of its mass. That is a process emission, not a combustion one, and it happens whatever fuel the plant uses. The second is graphitisation: the baked article is heated to around three thousand degrees Celsius by passing an electric current through it, which is one of the most electricity-intensive operations in any industry. The normative annex on non-fossil energy electricity is therefore the part with the largest commercial consequence here, since it sets what a producer must demonstrate to claim a lower factor for renewable power. Issued on 23 August 2024 and in force since 1 March 2025.

chinastandards.org - PREVIEW

This document specifies the accounting boundaries, accounting steps and methods, data quality management, and management, report content and format. This document applies to the accounting and reporting of greenhouse gas emissions from carbon material manufacturing 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 shall apply to this document; for referenced documents without a date, the latest version (including all amendments) shall apply to this document. document.

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

GB/T 32151.6 Greenhouse gas emissions accounting and reporting requirements Part

3 Terms and definitions

The terms and definitions defined in 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

Preview: page 3 of 4 shown, 36 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-32151-34-2024

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 reporting entity A legal entity that emits greenhouse gases or an independent accounting unit that is deemed to be a legal entity. [Source: GB/T 32150-2015, 3.2]

3.3 A legal entity whose main business is the production of carbon products or an independent accounting unit deemed to be a legal entity.

3.4 Greenhouse gas emissions from the oxidative combustion of fossil fuels.

6 Civil aviation enterprises

GB/T 32151.27 Greenhouse gas emissions accounting and reporting requirements Part

27.Land transportation enterprises

GB/T 32151.30 Greenhouse gas emissions accounting and reporting requirements Part

30.Water transport enterprises

12 Textile and clothing enterprises

13.Independent coking enterprises;

14.Other non-ferrous metal smelting and rolling processing enterprises;

15.Petrochemical enterprises;

16.Oil and gas production enterprises;

17.Fluorine chemical enterprises;

19.Heat treatment enterprises;

21.Foundry enterprises;

22.Livestock and poultry breeding enterprises;

23.Planting industry institutions;

24.Electronic equipment manufacturing enterprises;

25.Food, tobacco, wine, beverage and refined tea enterprises;

27.Land transportation enterprises;

28.Mining enterprises;

29.Machinery and equipment manufacturing enterprises;

chinastandards.org - PREVIEW

Preview: page 4 of 4 shown, 36 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-32151-34-2024