ICS 13.020.10
CCS Z04

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 32151.23-2024

Requirements of the greenhouse gas emissions accounting and reporting - Part 23: Agricultural farming organization

温室气体排放核算与报告要求 第23部分：种植业机构

Issued on: October 26, 2024 **Implemented on: May 1, 2025**

**Issued by: State Administration for Market Regulation;
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 23 of GB/T 32151.GB/T 32151 has been published in the following parts.

1.Power generation enterprises;

2.Grid enterprises;

3.Magnesium smelting enterprises;

4.Aluminum 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

GB/T 32151.23-2024 is the crop farming part of the Chinese greenhouse gas accounting and reporting series. Cropping emissions are dominated by two sources that behave nothing like an industrial stack: nitrous oxide released from nitrogen applied to soil, whose emission factor depends on the fertiliser type, the soil and the climate, and methane from flooded rice paddy, which depends on the water management regime and on the organic amendments used. Fuel and electricity for machinery and irrigation come third. The standard sets the accounting boundary for a farming organisation, the calculation steps and methods for each of those sources, the data quality management requirements, and the content and format of the report, with informative annexes giving the default parameter values and the data quality guidance for organisations that cannot measure directly. It is the document that makes a Chinese farm's emissions a reported number rather than an estimate, and for anyone assessing agricultural supply chains sourced from China it defines what those numbers mean. It takes effect on 1 May 2025.

This document specifies the accounting boundaries, accounting steps and methods, data quality management, Report content and format. This document applies to the accounting and reporting of greenhouse gas emissions by plantation organizations.

2 Normative references

The contents of the following documents constitute the 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 Determination of calorific value of coal

GB/T 384 Determination of calorific value of petroleum products

GB 17167 General Rules for the Provision and Management of Energy Metering Instruments in Energy-consuming Units

GB/T 22723 Determination of energy content of natural gas

GB/T 22923 Determination of nitrogen, phosphorus and potassium in fertilizers by automatic analyzer

GB/T 32150 General Rules for Accounting and Reporting of Greenhouse Gas Emissions by Industrial Enterprises

NY/T 525 organic fertilizer

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-induced atmospheric ions 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. This document only covers three greenhouse gases. carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). [Source: GB/T 32150-2015, 3.1, with modifications]

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

3.3 accounting boundary accountingboundary The scope of greenhouse gas emissions related to the production and operation activities of the reporting entity (3.2). [Source: GB/T 32150-2015, 3.3]