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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 25323-2023

Replacing GB 25323-2010

**The norm of energy consumption per unit production of
nonferrous heavy metals metallurgical enterprises**

有色重金属冶炼企业单位产品能源消耗限额

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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 replaces GB 21248-2014 "Energy consumption quota per unit product of copper smelting enterprises", GB 21249-2014 "Zinc smelting enterprises Energy consumption quota per unit product", GB 21250-2014 "Energy consumption quota per unit product for lead smelting enterprises", GB 21251-2014 "Nickel Energy Consumption Quota per Unit Product of Smelting Enterprises", GB 21348-2014 "Energy Consumption Quota per Unit Product of Tin Smelting Enterprises", GB 21349- 2014 "Energy Consumption Quota per Unit Product of Antimony Smelting Enterprises" and GB 25323-2010 "Energy Consumption Quota per Unit Product of Secondary Lead": and GB 21248-2014, GB 21249-2014, GB 21250-2014, GB 21251-2014, GB 21348-2014, GB 21349- Compared with GB 25323-2010 in:2014, except for structural adjustment and editorial changes, the main technical changes are as follows:

- a) The scope of application adds cobalt smelting enterprises and bismuth smelting enterprises (see Chapter 1);
- b) The energy consumption quota level has been added, and the index value of the energy consumption quota level for copper, lead, zinc, nickel, tin, antimony, and recycled lead has been changed (see Chapter 4, Chapter 4 of GB 21248-2014, Chapter 4 of GB 21249-2014, Chapter 4 of GB 21250-2014, GB 21251- Chapter 4 of:2014, Chapter 4 of GB 21348-2014, Chapter 4 of GB 21349-2014, and Chapter 4 of GB 25323-2010 Chapter 4);
- c) Delete the advanced value of energy consumption quota (see Chapter 4 of GB 21248-2014, Chapter 4 of GB 21249-2014, GB 21250- Chapter 4 of:2014, Chapter 4 of GB 21251-2014, Chapter 4 of GB 21348-2014, and Chapter 4 of GB 21349-2014 Chapter 4, Chapter 4 of GB 25323-2010);
- d) Move the statistical scope and calculation method to the appendix (see Appendix

A~Appendix I, Chapter 5 of GB 21248-2014, GB 21249- Chapter 5 of:2014, Chapter 5 of GB 21250-2014, Chapter 5 of GB 21251-2014, and Chapter 5 of GB 21348-2014 Chapter 5, Chapter 5 of GB 21349-2014, Chapter 5 of GB 25323-2010);

e) Deleted "energy saving management measures" (see Chapter 6 of GB 21248-2014, Chapter 6 of GB 21249-2014, GB 21250- Chapter 6 of:2014, Chapter 6 of GB 21251-2014, Chapter 6 of GB 21348-2014, and Chapter 6 of GB 21349-2014 Chapter 6, Chapter 6 of GB 25323-2010): Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents: This document is proposed and managed by the National Standardization Management Committee: The previous versions of the documents replaced by this document are as follows:

---GB 21248, first released in:2007, first revised in:2014;

---GB 21249, first released in:2007, first revised in:2014;

---GB 21250, first released in:2007, first revised in:2014;

---GB 21251, first released in:2007, first revised in:2014;

---GB 21348, first released in:2008, first revised in:2014;

---GB 21349, first released in:2008, first revised in:2014;

---GB 25323, first released in:2010: Energy consumption per unit product of non-ferrous heavy metal smelting enterprises quota

1 Scope

GB 25323-2023 is the Chinese national standard on the norm of energy consumption per unit production of nonferrous heavy metals metallurgical enterprises, in the field of energy and heat transfer engineering. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 23 May 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 June 2024. Classification: ICS 27.010, CCS F01. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document stipulates the energy consumption limit level, technical requirements, statistical scope and calculation method of the unit product of non-ferrous heavy metal smelting enterprises: This document is applicable to the calculation and assessment of the energy consumption of the following non-ferrous heavy metal copper, zinc, lead, nickel, tin,

antimony, secondary lead, cobalt and bismuth smelting enterprises: And the energy consumption control of new construction and renovation and expansion projects:

- a) Copper concentrate, blister copper, miscellaneous copper (including black copper, recycled copper alloy raw materials, recycled copper raw materials, and other copper-containing materials after sorting and removing impurities) etc.) Copper smelting enterprises as raw materials: Not suitable for copper smelters dealing with copper-containing hazardous waste (such as copper-containing sludge, copper-containing fume) technology, copper-bearing material leaching electrowinning process and copper-bearing ore direct heap leaching process:
- b) Zinc smelting enterprises that use zinc concentrate, lead-zinc mixed concentrate, and zinc-containing secondary resources as raw materials:
- c) Lead smelting enterprises using lead concentrate and crude lead as the main raw materials, and lead electrolytic refining enterprises using crude lead as raw materials: does not apply to encrypted Closed blast furnace (ISP method) zinc smelting comprehensive lead recovery process and a production enterprise of lead recovery with smelting waste slag as the main raw material:
- d) Nickel smelting and nickel refining enterprises that process nickel sulfide concentrate: Not applicable to nickel smelting enterprises using nickel oxide ore as raw material:
- e) Tin smelting enterprises with tin concentrate as the main raw material: Not applicable to tin smelting enterprises mainly engaged in comprehensive recycling:
- f) Using antimony sulfide concentrate, sulfur-oxygen mixed antimony concentrate and brittle sulfur-lead-antimony concentrate as raw materials, adopt blast furnace roughing process and use antimony sulfide, sulfur and oxygen Antimony smelting enterprises using mixed antimony low-grade ore (antimony grade 10%~20%) as raw materials using open-hearth roughing process:
- g) Pyrochemical secondary lead smelting enterprises using waste lead-acid batteries and metallic lead waste as raw materials:
- h) Cobalt smelting using cobalt copper sulfide ore, crude cobalt carbonate, crude cobalt hydroxide, white metal, battery waste and cobalt slag from nickel smelting, etc: enterprise:
- i) Bismuth smelting pyrometallurgy and hydrometallurgy enterprises using bismuth sulfide concentrate and bismuth oxide concentrate as raw materials:

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text: Among them, dated references For documents, only the version corresponding to the date is applicable to this document; for

undated reference documents, the latest version (including all amendments) is applicable to this document:

GB/T 2589 General rules for comprehensive energy consumption calculation

GB/T 12723 General rules for the compilation of energy consumption quotas per unit of product

3 Terms and Definitions

The terms and definitions defined in GB/T 2589 and GB/T 12723 apply to this document:

4 Energy consumption quota levels

1 Copper smelting energy consumption quota level per unit product 4:1:

1 Copper concentrate smelting process The energy consumption limit grades of copper smelting unit products in copper concentrate smelting process are shown in Table 1, and the energy consumption of grade 1 is the lowest: