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

GB 30080-2025

Replacing GB 30187-2013

**Safety specification for design and production of copper and
copper alloy melting and casting**

铜及铜合金熔铸安全设计与生产规范

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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 30080-2013 "Safety Production Code for Copper and Copper Alloy Casting" and GB 30187-2013 "Safety Production Code for Copper and Copper Alloy Casting". Compared with GB 30080-2013 and GB 30187-2013, in addition to structural adjustments and editorial changes, the main technical changes are as follows:

- Changed terms and definitions (see Chapter 3, Chapter 3 of GB 30080-2013 and GB 30187-2013);
- Added the setting requirements and safety protection requirements for the molten copper (slag) area (see 5.1.5, 5.1.7, 5.2.9, 5.2.10);
- Added safety requirements for combustion devices (see 6.2.2.1, 6.2.2.2, 6.2.2.3, 6.2.3.1, 6.2.3.2, 8.2.8);
- Changed the requirements for accident pits (see 6.2.1.9, 7.5 of GB 30187-2013);
- Changed the requirements for emergency water (see 6.2.1.4, 6.3.2, 8.1.3, 6.2.2, 10.1.4 of GB 30187-2013);
- Deleted the requirements for induction furnace lining erosion monitoring and furnace leakage early warning (see 6.2.6 of GB 30187-2013);
- Deleted the following. The production of products containing toxic elements such as beryllium and cadmium must use vacuum melting and the combustion system of the vertical furnace should be set with an automatic air/fuel ratio Rate control system, etc. (see 6.2.8 of GB 30187-2013);
- Deleted the combustion system requirements for shaft furnaces (see

1 Scope

GB 30080-2025 is the Chinese national standard on safety specification for design and production of copper and copper alloy melting and casting, in the field of environment and health protection, safety. 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 1 August 2025 by the State

Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 February 2026. Classification: ICS 13.100, CCS H09. 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 specifies the safety management, regional layout and building (structure), equipment design in the process of copper and copper alloy processing enterprises in the casting production process. Safety technical requirements for facilities, supporting public auxiliary systems and operations. This document applies to the design and production safety management of melting and casting projects for new construction, expansion and renovation of copper and copper alloy processing enterprises.

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 2894 Safety colors and safety signs

GB 4053.1 Safety requirements for fixed steel ladders and platforms Part

3 Metallurgy, nonferrous metals

GB 50009 Code for Loads on Building Structures

GB 50029 Design Specification for Compressed Air Stations

GB 50030 Oxygen Station Design Specification

GB 50052 Design Specification for Power Supply and Distribution Systems

GB 50053 Design Specification for Substations 20kV and Below

GB 50054 Low Voltage Power Distribution Design Code

GB 50057 Code for Lightning Protection Design of Buildings

GB 50058 Code for Design of Electrical Installations for Explosive Atmospheres

GB 50108 Technical Specification for Waterproofing of Underground Engineering

GB 50187 Specification for General Layout Design of Industrial Enterprises

GB 50217 Design Standard for Power Engineering Cables

GB 50223 Classification standard for earthquake-resistant construction projects

GB 50316 Industrial Metal Piping Design Code

GB 50544 Standard for General Planning and Transportation Design of Nonferrous Metals Industry

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