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

GB/T 28742-2025

Replacing GB/T 28742-2012

**Technical specification for the safety of sewage treatment
equipment**

污水处理设备安全技术规范

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document replaces GB/T 28742-2012 "Safety Technical Specification for Wastewater Treatment Equipment". Compared with GB/T 28742-2012, except for the following. Aside from structural adjustments and editorial changes, the main technical changes are as follows:

- a) The scope has been changed (see Chapter 1, Chapter 1 of the.2012 edition);
- b) The "Hazard Classification" section has been removed (see Chapter 3 of the.2012 edition);
- c) A "Terms and Definitions" section has been added (see Chapter 3);
- d) Safety requirements for "materials" have been added (see 4.1);
- e) Requirements for lifting rings or hooks have been added (see 4.2.4);
- f) The requirements for introducing or involving hazards, and hazards of high-pressure fluid jet systems, have been changed (see 4.2.7~4.2.8, 4.4 of the.2012 edition). 4.5);
- g) Increased requirements for the enclosure protection rating of electrical control cabinets, insulation resistance, motor protection rating, and temperature of electrical component mounting boxes (see...). 4.3.1, 4.3.5, 4.3.7, 4.3.8);
- h) The requirements for external influences of electrical equipment have been changed (see 4.3.2-4.3.4, 4.3.6, and 4.3 in the.2012 edition);
- i) The requirement for a "control system" has been added (see 4.4);
- j) The requirements for "noise" have been changed (see 4.5,

1 Scope

GB/T 28742-2025 is the Chinese national standard covering the safety of a sewage plant's machinery - the guarding of screens, scrapers and screw conveyors, the electrical protection in a wet environment, the confined spaces and the hydrogen sulphide that kills more operators than any mechanism does. Issued on 2 December 2025, it has been in force since 1 July 2026, replacing GB/T 28742-2012.

This document specifies the safety requirements and measures for wastewater treatment equipment, as well as the verification and usage information for these safety requirements

and measures. This document applies to the design, production, and acceptance of wastewater treatment equipment.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB 2894 Safety Colors and Safety Signs

GB/T 3766 General rules and safety requirements for hydraulic transmission systems and their components

GB 3836.15 Explosive Atmospheres - Part

2.2 Occupational Exposure Limits for Hazardous Factors in the Workplace Part

2. Physical Factors GBZ /T 189.8 Measurement of physical factors in the workplace - Part

3 Stairs, steps and guardrails

GB/T 17888.4 Mechanical safety - Fixed access devices for machinery - Part

4 Fixed vertical ladders

GB/T 18153 Safety data for determining the temperature limits of accessible hot surfaces in mechanical safety

GB/T 18717.1 Ergonomic design for machine safety - Part

1. Principles for determining the size of openings for full-body entry into machinery

GB/T 18717.2 Ergonomic design for machine safety - Part

2. Determination of opening dimensions for partial human entry into machinery in principle

GB/T 20936.1 Gas detectors for explosive atmospheres - Part

15 Design, Selection and Installation of Electrical Installations

GB 4053 (all parts) Safety requirements for fixed steel ladders and platforms

GB/T 4208-2017 Degrees of protection provided by enclosures (IP code)

GB/T 4942-2021 Protection ratings (IP codes) for integral structures of rotating electrical machines

GB/T 5226.1 Electrical Safety of Machinery - Electrical Equipment of Machinery - Part

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