

ICS 13.230
CCS C 67



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

GB 17918-2025

**Safety specification for dust explosion protection in bulk grain
loading and unloading system in port**

港口散粮装卸系统粉尘防爆安全规范

Issued on: January 24, 2025

Implemented on: August 1, 2025

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

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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 17918-2008 "Safety Regulations for Dust Explosion Prevention in Bulk Grain Loading and Unloading Systems at Ports". In addition to structural adjustments and editorial changes, the main technical changes are as follows:

--- Added four terms and definitions. "bulk grain", "ordinary warehouse", "mechanized warehouse" and "trestles" (see 3.1, 3.5,

--- Changed the requirements for preventing open flames, preventing friction and collision sparks, and preventing static electricity (see 4.6, 4.7,

4.9 and 4.10, 2008 edition 4.5,

--- Changed the safety requirements for hot work (see Chapter 6, Chapter 5 of the 2008 edition);

--- Added the requirements for dust explosion prevention in bulk grain warehouses (see 7.3.3, 7.3.4);

--- Added dust explosion-proof requirements for pneumatic ship unloaders, plow-type

unloading belt conveyors, and warehouse cleaning machines (see 8.5, 8.13, 8.14);

---Changed the dust explosion safety requirements for bucket elevators (see 8.6, 7.6 of the.2008 edition);

--- Added requirements for duct material and wind speed (see 10.3);

--- Changed the dust explosion safety requirements for dust collectors (see 10.4, 9.6 of the.2008 edition);

--- Added verification method (see Chapter 11). Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents. This document is proposed and coordinated by the Ministry of Emergency Management of the People's Republic of China. The previous versions of this document and the documents it replaces are as follows:

1 Scope

GB 17918-2025 is the Chinese national standard on safety specification for dust explosion protection in bulk grain loading and unloading system in port, 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 24 January 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 August 2025. Classification: ICS 13.230, CCS C 67. 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 overall requirements for dust explosion safety in bulk grain loading and unloading systems at ports, the division of dust explosion hazard areas, and the requirements for hot work. Requirements, building (structure) requirements, loading and unloading machinery and conveying equipment requirements, weighing system requirements, dust removal system requirements, and describe the verification method. This document applies to the design, operation, maintenance and safety management of dust explosion prevention in bulk grain loading and unloading systems in ports.

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 3836.15 Explosive atmospheres Part

15.Specifications for the design, selection and installation of electrical equipment

GB 12158 General requirements for preventing electrostatic accidents

GB 13561.1 Safety regulations for continuous loading and unloading equipment in ports
Part

3 Terms and definitions

The terms and definitions defined in GB/T 15604 and the following apply to this document.

3.1 Bulk grain A general term for unpackaged raw grains and their processed products or by-product particles.

3.2 A general term for equipment, facilities and buildings (structures) used for bulk grain loading and unloading, transportation and auxiliary operations in the port.

3.3 Silo A vertical cylindrical enclosed structure for storing bulk materials.

3.4 Bulk cargoes store house Room-type structures for storing bulk materials.