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

GB 37241-2025

Replacing GB/T 37241-2018

Safety specification for inerting of combustible dust

可燃性粉尘惰化安全规范

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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 37241-2018 "Guidelines for Inerting Explosion Protection". Compared with GB/T 37241-2018, the only changes are structural adjustments and editing. Aside from the sexual alterations, the main technical changes are as follows:

---The term "inertization of inert dust" has been added (see 3.3);

---The definitions of the terms "inertization" and "partial inertization" have been changed (see 3.1, 3.5, and 3.1,

3.4 in the.2018 edition);

---The requirements for considering factors when selecting the inertization method have been changed (see 4.1,

5.1.1 in the.2018 version);

---Added considerations for atmosphere inerting selection and requirements for the

components that should be included in atmosphere inerting systems and inert dust inerting systems (see...) 4.2, 4.3, 4.4);

---The requirements for evaluating the explosion characteristics of combustible dust under inert atmosphere have been revised (see 5.1.3, 4.1 in the 2018 version);

---Added requirements for the selection of inert dust in flue gas inerting and inert dust inerting, as well as the pressure vessels and pressure pipelines of the inerting system (see...) 5.1.4, 5.1.5, 5.1.6, 5.2.1, 5.3.1);

---The requirements for inert gas dehumidification have been changed (see 5.2.5, 6.1.7 in the 2018 version);

---Requirements have been added for the filling of inert gas cylinders and the inerting and dispersion of inert dust (see

1 Scope

GB 37241-2025 is the Chinese national standard on safety specification for inerting of combustible dust, 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 31 October 2025 by the State Administration for Market Regulation; Standardization Administration of China, and takes effect on 1 November 2026. Classification: ICS 13.230, CCS C67. 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 general requirements, technical requirements, and operation and maintenance requirements for the inerting of combustible dust, and describes the corresponding verification method. This document applies to the inerting of process equipment and facilities in dust explosion hazard areas. This document does not apply to dusty environments such as underground coal mines, fireworks and firecrackers, explosives, and strong oxidizers.

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/T 150.1 Pressure Vessels - Part

3 Terms and Definitions

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

3.1 inerting By filling the protected system with inert gas or adding inert dust, the mixture within the system is prevented from forming an explosive atmosphere, or [the amount of inert gas or dust is increased]. Explosion-proof technology to reduce the difficulty of igniting mixtures.

3.2 Atmosphere inerting By filling the protected system with inert gas, an explosive atmosphere cannot be formed in the mixture within the system, or the difficulty of igniting the mixture is increased. Explosion-proof technology.

3.3 Pressure-swinginerting By first pressurizing the closed system and then venting it, the system pressure is restored to atmospheric pressure, thereby reducing the oxygen concentration within the system. Atmosphere inertization method.

3.4 Vacuum-swinginerting An atmosphere inerting method is used to reduce the oxygen concentration in a closed system by first evacuating it and then filling it with inert gas at atmospheric pressure.