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

GB 12801-2025

Replacing GB/T 12801-2008

General requirements of safety in production process

生产过程安全基本要求

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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 12801-2008 "General Requirements for Safety and Health in Production Processes". Compared with GB/T 12801-2008, except for the conclusion... Aside from structural adjustments and editorial changes, the main technical changes are as follows:

---The scope has been changed (see Chapter 1, Chapter 1 of the.2008 edition);

---Requirements for hazard identification, risk assessment, and risk management have been added (see 4.1.2);

---Requirements for intelligent and remote operation have been added (see 4.4.10, 4.4.11, and 5.1.5);

---Added the requirement that start-up and shutdown plans should be developed before production equipment with a risk assessment result of a relatively high risk level is put into operation and shut down (see...). 4.4.12);

---Added the requirement that instruments, meters, monitoring devices, etc., requiring continuous power supply should be equipped with emergency power supplies (see 4.6.1);

---Added requirements for electrical equipment and related instruments and meters used in explosion-hazardous areas (see 4.6.3);

---The requirements for dust and toxic gas protection safety measures have been revised (see 5.2,

6.4 of the.2008 edition);

---Added requirements for protection against electric shock, mechanical injuries, lifting injuries, falls, and other safety precautions (see 5.3, 5.4). 5.5, 5.6, 5.7);

---The requirements for personal protective equipment have been revised (see 5.7.9, 6.2 of the 2008 version);

--- Occupational health-related content has been deleted [see 2008 edition 4.3, 5.2.1b), 5.2.1c), 5.2.2b), 5.2.2f), 5.4.4, 5.7.2f), 5.9.1b), 6.1b), 6.4.1, 6.5, 6.7]. Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed and is under the jurisdiction of the Ministry of Emergency Management of the People's Republic of China. The release history of this document and the document it replaces is as follows:

1 Scope

China's mandatory general requirements for safety in production processes. It is the umbrella safety standard of Chinese industry - the document that states, for any production process whatever the sector, what safety has to be designed in rather than added afterwards. Its principle is the hierarchy that every serious safety system rests on: eliminate the hazard if the process can be changed, substitute a less dangerous material, contain and guard what remains, and only then rely on procedures and protective equipment, which are the weakest controls because they depend on a person doing the right thing every time. From that follow the requirements on plant layout and separation, on the design of machinery and its guarding, on electrical and fire safety, on ventilation and noise, on the marking of hazards, and on the training and instruction the operators must receive.

This document specifies the general requirements for safety in the production process and the technical measures for safety protection. This document applies to the safety planning, design, organization, and implementation of enterprise production processes.

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 5083 General Principles for Safety and Health Design of Production Equipment

GB 15577 Safety Regulations for Dust Explosion Prevention

GB 15603 General Rules for Storage of Hazardous Chemicals in Warehouses

GB 39800 (All Parts) Standard for the Configuration of Personal Protective Equipment

GB 50016 Code for Fire Protection Design of Buildings

GB 50057 Code for Design of Lightning Protection of Buildings

GB 50058 Design Code for Electrical Installations in Explosive Atmospheres

GB 50187 Standard for General Layout Design of Industrial Enterprises

GB 50217 Standard for Design of Cables for Power Engineering

GB 50223 Classification Standard for Seismic Design of Building Engineering

GB 55036 General Specification for Fire Protection Facilities

GB 55037 General Code for Fire Protection of Buildings

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 production process The entire process from the object of labor entering the production field to the production of a finished product.

Note. The production process in this document includes operations and construction processes.

3.2 production materials The collective term for raw materials, materials, fuels, auxiliary materials, and semi-finished products required for production.

3.3 Remaining materials The term refers to the surplus materials and waste products generated during the production process.

Note. This includes gaseous, liquid, and solid substances.