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

**GB/T 46250-2025**

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**Technical specification for lightning protection of fireworks  
production enterprises**

烟花爆竹生产企业防雷技术规范

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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. 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 by the China Meteorological Administration. This document is under the jurisdiction of the National Meteorological Disaster Prevention and Mitigation Standardization Technical Committee (SAC/TC345). This document was drafted by: Hunan Provincial Meteorological Disaster Prevention Technology Center (Hunan Provincial Lightning Protection Center), Chongqing Meteorological Safety Technology Center. Xiamen Daheng Technology Co., Ltd., Hunan Xinzhongtian Testing Co., Ltd., Hunan Changhao Meteorological Technology Co., Ltd., and Hunan Zhengyu Meteorological Service Co., Ltd. Limited Company, Jiangxi Provincial Climate Center, Liuyang Meteorological Bureau, Hunan Kebite Engineering Construction Co., Ltd., Beijing Lightning Protection Facility Testing Service Center, Chongqing Shouli Construction Development Co., Ltd., Beijing Wangchengding Technology Development Co., Ltd., Liuyang Zhongzhou Fireworks Group Co., Ltd., Hunan Ruisheng Technology Service Co., Ltd. The main drafters of this document are. Wang Daoping, Deng Zhanman, Wang Yaoxi, Li Jiaqi, Xiong Luhong, Liu Yanjuan, Liu Shuai, Tan Biao, Li Yuta, and Jiang Cuiwen. Guo Guixiong, Sun Yong, Zuo Tao, Li Ting, Zhang Ya, Zhang Mingliang, Li Changchu, Xiong Xuefei. Lightning Protection Technical Specifications for Fireworks and Firecrackers Manufacturing Enterprises

### 1 Scope

GB/T 46250-2025 is the Chinese national standard covering protecting a fireworks works

from lightning - the air termination and the separation distance from buildings holding explosive, the earthing and equipotential bonding, the surge protection, the static electricity control, and the inspection regime. First edition, under the China Meteorological Administration. In force from 1 February 2026. Issued on 5 October 2025, it has been in force since 1 February 2026.

This document specifies the requirements for lightning protection categories, lightning protection design, lightning protection construction, lightning warning and emergency response for fireworks and firecracker manufacturers. The acceptance and maintenance methods are described. This document applies to the design, construction, acceptance, and maintenance of lightning protection devices, as well as lightning warning and emergency response in fireworks and firecracker manufacturing enterprises. Fireworks and firecrackers storage enterprises can refer to this.

## 2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are listed below. 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 21431-2023 Technical Specification for Testing Lightning Protection Devices of Buildings

GB/T 32936 Method for assessing lightning risk in explosive hazardous locations

GB/T 34312 Emergency Response Standard for Lightning Disasters

GB 50057-2010 Code for Design of Lightning Protection of Buildings

GB 50161-2022 Safety Standard for Engineering Design of Fireworks and Firecrackers

GB 50601-2010 Code for Construction and Quality Acceptance of Lightning Protection Engineering for Buildings

## 3 Terms and Definitions

The following terms and definitions apply to this document.

**3.1 Hazardous goods** Items that can endanger human safety and property safety, as well as semi-finished and finished fireworks and firecrackers made from these items.

**Note.** This includes, but is not limited to, pyrotechnic powder, black powder, fuses, oxidizers, single-base powders, and reducing agents (combustible materials) used by fireworks and firecracker manufacturers during the production process. (things), etc. [Source: GB 50161-2022, 2.0.2, with modifications]

### 3.2 Buildings or structures used for the production or storage of hazardous materials.

Note. This includes hazardous materials production plants, transit warehouses, storage warehouses, drying yards, fireworks and firecracker testing grounds, and temporary storage areas for black powder, pyrotechnic powder, and effect components. Rooms, etc. [Source: GB 50161-2022, 2.0.8, with modifications]

3.3 Lightning protection device A complete system used to reduce personal injury and physical damage caused by lightning strikes on buildings.