

ICS 71.100.30  
CCS C65



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

**GB 11652-2012**

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**Technical regulations for the working safety of fireworks and  
firecrackers**

烟花爆竹作业安全技术规程

**Issued on: July 31, 2012**

**Implemented on: September 1, 2012**

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**Issued by: General Administration of Quality Supervision, Inspection and  
Quarantine of the People's Republic of China;  
Standardization Administration of China**

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## Foreword

All technical contents of this standard is mandatory. This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB 11652-1989 "fireworks labor safety technology." This standard compared with GB 11652-1989, to respect the scope, pyrotechnic manufacturing, product production and other content for a more substantial Amendments, mainly technical changes are as follows:

- The original standard name of "labor" was changed to "work", known as "fireworks operational safety technical regulations";
- From the standard scope is limited to fireworks manufacturers to expand fireworks production and business enterprises;
- More scientifically defined define a few key terms, the definition of the effect of increasing the member;
- Increased control and provisions made black powder mixed doses of drugs to improve the drying and cooling pyrotechnic charge packaging Safety requirements;
- Consider the different manufacturing processes of drugs regularly quantitative convergence and realistic production conditions, to determine quantitatively the production process of the drug, to Shell quantitative ball and fireworks assembly considerably revised;

- Increased the lead with a sealing plug firecracker Safety requirements;
- Improve the safety technical requirements drying room;
- The "equipment and maintenance" to "equipment and equipment installation, use, maintenance," and according to the need to be realistic and development, made a large Adjustments and additions;
- Improve hazardous processes operating personnel safety training requirements for content;
- Increasing the general provisions, fuse production, hazardous waste disposal chapters. In addition, the standard of the main production flow chart as an information appendix (Appendix A), in order to control inspection. This standard was proposed by the State Administration of Work Safety. This standard by the National Safe Production Standardization Technical Committee (SAC/TC288) centralized. This standard was drafted. National Light fireworks safety Quality Supervision and Testing Center, Jiangxi lidu Fireworks Group Co., Ltd., Panda Fireworks Group Co., Ltd., Liuyang Dancing Fireworks Group Co., Ltd. Liuyang Qingtai Fireworks, Fireworks Co., Ltd. Hunan Jingtai, Liuyang fireworks factory outlet episode, Hebei Lixian Demao fireworks factory, Tonglu County fireworks factory in Shandong Xiajin County Luyang fireworks Limited. The main drafters of this standard. yellow tea, Songhan Wen, Liu Ning, Li Zhongqi, Luo Jian-she, Liuchun Wen, Lin passing, Li Jinming, Sun Shi set, Liu Jie light, Xiaoxiang Jie, Zhao Weiping, Fan Zhiyu, Du Yuan gold, into danger Yan, Liu Gang, Jiangxi Song, Lu Rongqiu, Zhao Zheng. This standard replaces the standards previously issued as follows:
- GB 11652-1989. Fireworks job safety technology

## 1 Scope

China's mandatory technical regulations for working safety in the manufacture of fireworks and firecrackers. The industry it governs is concentrated in a few counties of Hunan and Jiangxi and has historically been the deadliest manufacturing sector in the country: the material is an explosive being handled by hand in quantity, and an accident is not an injury but a building gone. The regulations are built on separation - the distance between one process building and the next, the quantity of composition permitted in a workroom at any moment, the number of people allowed in it, and the earth barricades that direct a blast upward rather than sideways. Alongside that sits the control of ignition: the elimination of friction, impact and static, which means conductive floors, non-sparking tools, humidity control and clothing that cannot generate a charge. Almost every provision traces back to a specific accident.

This standard specifies the fireworks production and operation of enterprises in fireworks production, development, storage, handling, transport enterprise, discharge test And hazardous waste disposal in the process of job security technical requirements. This

standard applies to fireworks production and operation of enterprises.

## 2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB 2626 respirator self-absorption filter anti-particulate respirators

GB 5083 production equipment with safety and health General

GB/T 8196 mechanical safety devices fixed and movable guards General requirements for the design and manufacture

GB 10631 fireworks safety and quality

GB/T 12801 General requirements for the production process safety and health

GB/T 13869 Electrical Safety Guidelines

GB 24284 large discharge of fireworks safety technology

GB/T 25295 Electrical equipment safety design guidelines

GB 50161 Design fireworks safety regulations AQ4111 fireworks workplace machinery and electrical safety regulations

## 3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Gunpowder pyrotechnic Mainly by reducing and oxidizing agent such as composition, burning, produces a mixture of light, sound, color, smoke, gas and other effects of the explosion.

3.2 Black powder blackgunpowder With potassium nitrate, charcoal and sulfur or one pyrotechnic with potassium nitrate and carbon powder as raw materials.

3.3 Effects pieces effectparts Pyrotechnic or a single body containing pyrotechnic composition is formed by the production process (including drug granules, pellets, drugs block kits, medicine ball, the effect within Tube, wire and other effects), the effect of the drug into the bare member and non-member bare drug effect.

3.4 Non-naked drug effect member non-exposuregunpowdereffectparts The casing member pyrotechnic effect after the tightly packed.

3.5 Kobo workshop Fireworks factory production operations.

3.6 Fixed machine equipmentquota The number of dangerous places to allow maximum

mechanical equipment (sets).

3.7 Capacity personnelquota In dangerous place to allow the maximum number.

3.8 Quantitative gunpowderweightquota In the field of hazardous places Permissible storage (or retention) of the largest pharmaceutical quality (including semi-finished products in the pharmaceutical quality).

3.9 Hazardous waste hazardouswaste In fireworks production process, waste products and fireworks drug-containing semi-finished products, pyrotechnic, fuse, dangerous chemicals.

3.10 Dipped in medicine (medicine) dippingofwetgunpowder The wet adhesion of the drug effect member, member firing end of the process.

3.11 Assembly assemblywork The effect of non-drug bare parts, components together in the process.

3.12 Equipment, building (pressure) drug filinggunpowder The pyrotechnic composition, black powder-pack or bare drug effects (filling, building pressure) into the housing or the mold process.

## 4 General provisions

4.1 should establish and improve the management of production safety regulations and job rules, and effective implementation.

4.2 should be within the permitted special place, according to the licensed product category level range of safe production and storage.

4.3 should work their intended purpose (library) room, in accordance with regulations set safety signs or logos should not be allowed to change the production processes, work (library) Room use and the level of danger.

4.4 The operator should not be allowed to change the drug formulation and operating procedures; when needed to change, should be the appropriate procedures and regulations for examination and approval before operating.

4.5 should comply with this standard capacity, quantitative and machine should not exceed capacity, machines, quantitative production and storage.

4.6 manual process pyrotechnic direct contact should be used copper, aluminum, wood, bamboo and other materials of the tool should not be used iron, porcelain and non-static conductive Plastics, synthetic materials and other tools costumes, digging, loading building (pressure) pyrotechnic; costumes, pyrotechnic Emulsion should not exceed the container edge.

4.7 operating table should be stable and firm; direct contact with the pyrotechnic step workbench should close the window should be set rubber, paper, wood work Countertops,