



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

GB 50630-2010

**Code for design on fire prevention of nonferrous metals
engineering**

有色金属工程设计防火规范

(English Translation)

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1.0.1

This code is formulated in view to preventing and minimizing fire hazards in nonferrous metals engineering and guaranteeing personal and property safety.

1.0.2

This code is applicable to the fire protection design of new construction, extension and renovation engineering in the nonferrous metal industry, but not applicable to the fire protection design for processing, storage and use of explosives or explosive material items in the nonferrous metals engineering.

1.0.3

The fire protection design of nonferrous metals engineering shall be combined with actual engineering conditions, and advanced technology, advanced process, advanced equipment and new materials shall be actively applied to achieve safety, applicability, advanced technology, economy and rationality.

1.0.4

In addition to this code, the fire protection design of the nonferrous metals engineering shall also meet the requirements of the current relevant standards of the State.

2.0.1 process type

summarization and classification by production process or production method of nonferrous metals, including mining, mineral processing, pyrometallurgy, hydrometallurgy, molten salt electrolysis, metal and alloy processing as well as roasting, refining, extraction, etc.

2.0.2 main workshop

plant building used to accommodate the main production process equipment and devices in a certain process type

2.0.3 general substation

facility and place used for power supply and distribution for the production of the whole plant or large area [among which the facility and place used for power supply and distribution of a certain workshop or community are called substation of workshop or community]

2.0.4 service room of workshop

rooms for providing daily services such as changing clothes, bathing, management and toileting for workshop production staff

2.0.5 control room

special room equipped with automatic process adjustment and production optimization control devices, and the room for the adjustment and control room for main production line of process type (including branches) is called the main control room

2.0.6 corrosiveness area

various facilities, buildings (structures) and their related areas under the action of corrosive media

2.0.7 roadway and chamber

passage dug in ore and rock according to certain specifications for geological exploration, mining, ventilation and other purposes is called the roadway; and underground structures excavated in ore and rock for special purposes such as equipment placement or material storage are called the chamber

2.0.8 open building

buildings with external walls (including windows, daylighting bands, flashing boards, etc.) whose area is less than 50% of the total area of building envelope structure

3.0.1

The design of the nonferrous metals engineering shall be combined with the characteristics and quantity of fire hazards arising from actual use, storage or production of media, as well as environmental conditions and other factors to determine the classification of fire hazards arising from production (storage) of media in their plant buildings (warehouses) or areas (locations), and shall meet the relevant requirements of the current national standard GB 50016 Code for design on building fire protection and prevention.

3.0.2

The fire resistance class of the non-ferrous metal plant buildings (warehouses) should not be less than Class II. The combustibility and fire resistance rating of the their members shall be in accordance with the current national standard GB 50016 Code for design on building fire protection and prevention.

3.0.3

The main load-bearing members of Categories D and E fire-resistant plant buildings (warehouses) may be of metal structure without fire protection. For the metal load-bearing members that may be directly affected by the flame of Categories A, B and C liquids or combustible gases, and may be radiated by heat, with the surface temperature greater than 200 degrees C, fire protection and heat insulation measures shall be taken or the fire resistance of the structure shall be checked.

3.0.4

The fire resistance class of cable interlayer and underground or semi-underground electrical room, hydraulic station and lubricating oil station shall not be less than Class II. When the cable interlayer is of steel structure, the steel members shall be protected against fire, and shall meet the requirements of Class II fire resistance.

3.0.5

The open semi-underground equipment room (pit) set in Categories D and E plant buildings with Classes I and II fire resistance, may be in the same fire compartment as their above-ground plant buildings. When Category C oils are used or stored in the underground equipment room, effective fire separation measures shall be taken, and Categories A and B combustibles must not be stored.

3.0.6

For belt conveyor corridors connecting two fire compartments, other fire separation facilities shall be set up for local openings that are difficult to be closed by physical fire partitions,