



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

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General code for building fire protection

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1 General

1.0.1 In order to prevent building fires, reduce fire hazards, ensure personal and property safety, and make building fire protection requirements safe, applicable, advanced in technology, and economically reasonable, this specification is formulated in accordance with relevant laws and regulations.

1.0.2 Except for buildings producing and storing civil explosives, the fire protection of newly built, rebuilt and expanded buildings in the planning, design, construction, use and maintenance, as well as the fire protection in the renovation, use and maintenance of existing buildings must implement this specification.

1.0.3 Factory buildings and warehouses for the production and storage of inflammable and explosive materials shall be located at the edge of the urban planning area or in a relatively independent safe zone.

1.0.4 For densely populated areas of existing buildings with low fire resistance ratings in cities and towns, fire separation measures should be taken, fire truck passages should be set up, and fire water sources, municipal fire water supply and municipal fire hydrant systems should be improved.

1.0.5 For the renovation of existing buildings, the corresponding fire protection technical requirements shall be determined according to the current situation of the building, the scale of the building after renovation, fire risk and usage, and the objectives, functions and performance requirements specified in this code shall be met. Existing factories and warehouses that affect fire safety in built-up areas of cities and towns should be relocated or transformed.

1.0.6 Compressed natural gas refueling mother stations, first-class automobile refueling

stations, gas refueling stations, and combined refueling and refueling stations should not be built in urban built-up areas.

1.0.7 The urban fire station shall be located on the leeward side of the annual minimum frequency wind direction of the flammable and explosive dangerous goods place or facility, and its land boundary shall not be less than 50m away from the gas station, gas station, and fuel and gas joint construction station, and the distance from A, Class B factory buildings and storage places for inflammable and explosive dangerous goods shall not be less than 200m. The main entrance and exit of vehicles on duty at urban fire stations should not be less than 50m away from the main evacuation exits of large public buildings with dense population.

1.0.8 Whether the technical methods and measures adopted in the project construction meet the requirements of this specification shall be judged by the relevant responsible parties. Among them, the innovative technical methods and measures should be demonstrated and meet the relevant performance requirements in this specification.

1.0.9 Violation of the provisions of this specification shall be punished in accordance with relevant laws and regulations.

2.1 Objectives and Functions

2.1.1 The fire protection performance and fortification standard of the building shall be compatible with the height (buried depth), number of floors, scale, category, nature of use, functional use, fire hazard, etc. of the building.

2.1.2 Building fire protection shall meet the following objectives and requirements.

- 1 Guarantee personal and property safety and personal health;
- 2 Guarantee the important functions of use and the continuity of production, operation or operation of important facilities;
- 3 to protect the public interest;
- 4 Protect the environment and save resources.

2.1.3 Building fire protection shall meet the following functional requirements.

- 4 The fire rescue exit should be easy to open or break from indoors and outdoors, and when glass windows are used, safety glass should be selected;
- 5 The fire rescue exit shall be provided with permanent and obvious signs that can be identified indoors and outdoors.

2.2.4 For closed stairwells and smoke-proof stairwells with mechanical pressurized air

supply system and close to the outer wall or direct access to the roof, normally closed emergency smoke exhaust windows shall be installed on the top of the stairwell or on the uppermost outer wall. And the emergency smoke exhaust window should have manual and linkage opening functions.

2.2.5 Except for places with special functions and performance requirements or where the fire develops slowly, emergency smoke and heat exhaust facilities may not be installed on the outer walls or roofs, the following above-ground buildings or parts without openable outer windows shall have outer walls and roofs on each floor. (or) Emergency smoke and heat exhaust facilities are installed on the roof, and the emergency smoke and heat exhaust facilities should have the function of manual, linkage or automatic opening by means of flue gas temperature.

- 1 Category C factory buildings with a floor area greater than 2500m²;
- 2 Class C warehouses with a building area of any floor greater than 2500m²;
- 3 Store business halls, exhibition halls, conference halls, multi-functional halls, banquet halls with a floor area greater than 2,500m², and aisles longer than 60m in these buildings;
- 4 Rooms and corridors in singing, dancing, entertainment, and projection entertainment venues with a total construction area greater than 1,000m²;
- 5 The atrium close to the outer wall or through to the roof of the building.

2.2.6 In addition to the urban utility corridors, traffic tunnels and indoor mechanical garages without driveways and personnel staying without fire elevators, the following buildings shall be equipped with fire elevators, and the number of fire elevators available for each fire compartment shall not be Should be less than 1 part.

- 1 Residential buildings with building height greater than 33m;
- 2 Elderly care facilities with 5 floors and above and a construction area greater than 3000m² (including the fifth floor and above floors in other buildings);
- 3 Class I high-rise public buildings, Class II high-rise public buildings with building height greater than 32m;
- 4 Category C high-rise factory buildings with building height greater than 32m;
- 5 Closed or semi-closed garages with building height greater than 32m;
- 6 In addition to rail transit projects, underground or semi-underground buildings (rooms) with a buried depth greater than 10m and a total construction area greater than 3000m².

2.2.7 The public area of the subway station with a buried depth greater than 15m shall be provided with special fire-fighting passages.

2.2.8 In addition to the fire elevators in warehouse corridors, cold storage halls and silo

working towers, the front room may not be provided, and the fire elevators in other buildings shall be provided with front rooms. The front room of the fire elevator should meet the following requirements.

- 1 The front room on the first floor shall lead directly to the outside or through a dedicated passage to the outside, and fire separation measures shall be taken between the passage and adjacent areas.
- 2 The usable area of the front room shall not be less than 6.0m², and the usable area of the shared front room shall comply with the provisions of Article 7.1.8 of this code; the short side of the front room shall not be less than 2.4m.
- 3 The front room or shared front room shall be separated from other parts by fire doors and fire partition walls with a fire resistance rating not less than 2.00h. Except that the opening of the front room of the freight elevator that doubles as a fire elevator can not be provided with fire doors can be separated by fire shutters, fire shutters or fire glass walls should not be used to replace fire partition walls.

2.2.9 The fire-fighting elevator shaft and machine room shall be separated from adjacent shafts, machine rooms and other rooms by a fireproof partition wall with a fire resistance rating of not less than 2.00h and no openings. The well bottom of the fire elevator should be provided with drainage facilities, the capacity of the drainage well should not be less than 2m³, and the displacement of the drainage pump should not be less than 10L/s.

2.2.10 Fire lifts shall meet the following requirements.

1. It should be able to stop on every floor in the service area;
- 2 The load capacity of the elevator should not be less than 800kg;
- 3 The connection between the power and control cables of the elevator and the control panel, and the waterproof performance level of the control panel shell should not be lower than IPX5;
- 4 At the entrance of the first floor of the fire elevator, obvious signs and special operation buttons for fire rescue personnel should be set;
- 5 The combustion performance of the interior decoration materials of the elevator car shall be Class A;
- 6 The elevator car should be equipped with special fire intercom and video monitoring system terminal equipment.

2.2.11 For industrial and civil buildings with a building height greater than 250m, a helipad should be provided on the roof.

2.2.12 The size and area of the rooftop helipad shall meet the requirements for safe landing and rescue of helicopters, and shall comply with the following regulations.