



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

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General specifications on fire facilities

消防设施通用规范

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Table of Contents

Foreword

1 General

2 Basic provisions

3 Fire water supply and hydrant system

4 Automatic sprinkler system

5 foam fire extinguishing system

6 Water spray and water mist fire extinguishing system

7 Fixed fire monitor, automatic tracking and positioning jet fire extinguishing system

8 Gas fire extinguishing system

9 Dry powder fire extinguishing system

10 Fire extinguisher

11 Smoke prevention and exhaust system

12 Automatic fire alarm system

1.0.1

In order to make sure that fire protection facilities play an effective role in construction projects to reduce fire hazards, this code is formulated based on relevant laws and regulations.

1.0.2

This code must be implemented in the design, construction, acceptance, use and maintenance of fire protection facilities in construction projects.

1.0.3

Whether the technical methods and measures adopted in the engineering construction meet the requirements of this code shall be judged by the relevant responsibility subjects. Innovative technical methods and measures shall be demonstrated and meet the performance requirements in this code.

2.0.1

The fire protection facilities used for fire control and extinguishing shall be effective in controlling or extinguishing the fire in buildings (structures); the fire protection facilities used for cooling protection or fire separation shall prevent the fire from spreading within the

specified time.

2.0.2

In case of fire, the fire water supply and fire extinguishing facilities shall work reliably and continuously according to the set requirements; for the fire extinguishing facilities linked with the automatic fire alarm system, the fire detection and linkage control system shall link to and start the fire extinguishing facilities in time.

2.0.3

The performance and protective measures of fire water supply and fire extinguishing facilities shall be adapted to the protection objects, protection purposes and application environmental conditions, and meet the requirements of stable and reliable operation of fire water supply and fire extinguishing facilities.

2.0.4

In the fire water supply and fire extinguishing facilities, electrostatic protection measures shall be taken for the water supply pipelines and other fire extinguishing agent transmission pipelines and components located in the environment with explosion hazards.

2.0.5

The construction site of fire protection facilities shall meet the construction requirements. Quality control shall be carried out during the installation of fire protection facilities, and quality inspection shall be carried out after each working procedure. Concealed works shall be subject to acceptance before concealment; other projects shall be subject to the inspection and tests of installation quality and functions of the system and equipment after the completion.

2.0.6

In the fire water supply and fire extinguishing facilities, strength test, tightness test and flushing shall be carried out for the water supply pipelines and other fire extinguishing agent transmission pipelines after the pipelines have been installed.

2.0.7

The installation project of fire protection facilities shall be subject to the engineering quality and facility function acceptance, and the acceptance results shall conclude clearly whether it is accepted or not.

2.0.8

The construction and acceptance process of fire protection facilities shall be recorded and archived.

2.0.9

The fire protection facilities that have been put into use shall be inspected, checked and maintained regularly to ensure normal operation or working state, and shall not be shut down, dismantled or moved without permission. Fire extinguishing agent and fire protection facilities beyond the validity period, or pipelines, components and pressure vessels that do not meet the requirements for subsequent use shall not be used any longer.

2.0.10

On or near fire protection facilities, obvious signs shall be set, the text shall be accurate, clear and easy to identify, and the colors, symbols or signs shall meet relevant standards. Protective measures shall be taken to prevent misoperation or damage to devices such as manual operation buttons.

3.0.1

The fire water supply system shall meet the requirements of water quantity, flow rate and water pressure required by the fire protection water system within the designed continuous water supply time.

3.0.2

The working pressure of the low-pressure fire water supply system shall be greater than or equal to 0.60 MPa. The working pressure of the high-pressure water supply system and temporary high-pressure water supply system shall meet the following requirements:

- 1 For the high-pressure fire water supply system that uses a high-level fire water pool or tower for water supply, its working pressure shall be the maximum static pressure of the water pool or tower;
- 2 For the high-pressure fire water supply system that directly uses a municipal water supply network, its working pressure shall be determined by the working pressure of the network;
- 3 For the temporary high-pressure fire water supply system uses a high-level fire water tank for pressure stabilizing, its working pressure shall be the sum of the pressure at zero flow of the fire pump and the maximum static pressure at the inlet of the fire pump;
- 4 For the temporary high-pressure fire water supply system uses a pressure stabilizing pump, its working pressure shall be the sum of the water pressure at zero flow of the fire pump and the maximum static pressure at the inlet of the fire pump, or equal to the

pressure at which the pressure stabilizing pump maintains the pressure of the fire water supply system, whichever is larger shall prevail.

3.0.3

For the municipal water supply network equipped with municipal fire hydrants, its working pressure shall be greater than or equal to 0.14 MPa at ordinary times. For fire rescue, the municipal fire hydrants shall have a water outflow rate greater than or equal to 15 L/s and a water supply pressure (calculated from the ground) greater than or equal to 0.10 MPa.

3.0.4

The outdoor fire hydrant system shall meet the following requirements:

- 1 The spacing of the outdoor fire hydrants and the distance from the outdoor fire hydrants to the outer walls and outer edges of buildings (structures) and the road edges shall meet the requirements for fire engines' safe and convenient water intake and supply during fire rescue;
- 2 If a backflow preventer is set in the outdoor fire water inlet pipe of the outdoor fire hydrant system, an outdoor fire hydrant shall be set in front of the backflow preventer;
- 3 The flow rate of outdoor fire hydrants shall meet the requirements of fire extinguishing, control, cooling, prevention and separation in specific buildings (structures) during the fire;
- 4 High-pressure or temporary high-pressure fire water supply systems shall be adopted if the outdoor fire hydrants are used directly to extinguish the fire and the designed flow rate of outdoor fire water supply is greater than 30 L/s.

3.0.5

The indoor fire hydrant system shall meet the following requirements:

- 1 The flow rate and pressure of indoor fire hydrants shall meet the requirements of fire extinguishing and control in specific buildings (structures) during the fire;
- 2 The annular fire water supply pipelines shall have at least two inlet pipes connected to the outdoor water supply pipe network; when one of the inlet pipelines is closed, the other inlet pipeline(s) shall still meet all indoor fire water consumption demand;
- 3 In the place where indoor fire hydrants are set, fire hydrants shall be set on all floors including the equipment floor;
- 4 The setting of indoor fire hydrants shall be convenient for use and maintenance.