



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

GB 50261-2017

Code for installation and commissioning of sprinkler systems

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1.0.1 This Code is formulated with view to ensuring the construction quality and
use function of sprinkler system (hereinafter referred to as system), reducing fire hazard
and protecting personal and property safety.

1.0.2 This Code is applicable to the construction, acceptance, maintenance and
management of sprinkler system arranged in industrial and civil buildings.

1.0.3 The construction, acceptance, maintenance and management of sprinkler
system shall not only meet those specified in this Code, shall also comply with the
requirements of relevant national current standards and codes.

2.0.1 condition of standing by

The state with the performance and service condition of sprinkler system complying with relevant technical requirements and enabling immediate action and sprinkling in case of fire.

2.0.2 system components

A general term for special products such as sprinkler, alarm valve set, pressure switch, water flow indicator, fire pump and pressure maintenance device.

2.0.3 equipment for supervisory and alarm control services

The equipment supervising the pressure, water level, water flow and valve opening/closing state of sprinkler system and capable of sending out control signal and alarm signal.

2.0.4 pressure maintenance pumps

A kind of special pump maintaining the pressure of sprinkler system under the condition of standing by within the range of design working pressure.

3.1.1 The subproject and subunit of sprinkler system shall be classified

according to Appendix A.

3.1.2 Construction scheme for system construction shall be prepared according

to the design requirements. Necessary technical standard for construction, sound construction quality management system and work quality inspection system shall be provided on construction site, and relevant records shall be filled in according to the requirements of Appendix B.

3.1.3 The following conditions shall be provided prior to sprinkler system

construction.

3.1.6 The quality control data of sprinkler system shall be filled in according to

the requirements of Appendix D.

3.1.7 Prior to sprinkler system construction, site inspection shall be carried out

for system components, pipe fittings and other equipment and materials, and those rejected shall not be used.

3.2.1 Prior to sprinkler system construction, site inspection shall be carried out

for the adopted system components, pipe fittings and other equipment and materials, and the following requirements shall be met.

3.2.9 Automatic monitoring devices such as pressure switch, flow detector, automatic exhaust valve, reducing valve, relief valve, multi-function pump control valve, check valve, signal valve, pump adapter as well as water level,

4.1.1 As for installation of such water supply facilities as fire pump, fire tank, fire

reservoir, pressure fire water supply equipment and fire department connection as well as their auxiliary pipelines, the dirt and sundries inside shall be cleaned.

In case that the installation is interrupted, the opening shall be sealed.

4.2 Installation of fire pump

Dominant item

4.2.1 The specification and type of fire pump shall meet the design

requirements and shall be provided with product qualification certificate and installation and operation instruction.

4.2.2 Installation of fire pump shall meet the requirements of the current national

standards GB 50231 General Code for Construction and Acceptance of Mechanical Equipment Installation Engineering and GB 50275 Code for Construction and Acceptance of Computer, Fan and Pump Installation Engineering.

4.2.5 For the outlet pipe of water pump, instrument used for testing water supply

pressure and flow rate as well as system flow rate and pressure detection device composed of drainage pipelines shall be installed or interface with flow rate and pressure detection device shall be reserved; the water-passing capacity of interface shall be consistent with the water supply capability of system.

4.3 Installation of fire tank and construction of fire reservoir

I Dominant item

4.3.1 Construction and installation of fire reservoir and fire tank shall meet the

requirements of the current national standards GB 50141 Code for Construction and Acceptance of Water and Sewerage Structures and GB 50242 Code for Acceptance of

Construction Quality of Water Supply Drainage and Heating Works. Arrangement mode and position of water level display device of fire reservoir and elevated fire tank shall meet the requirements of the design document.

Inspection method. observing and inspecting with ruler.

4.5.3 Underground fire department connection shall be installed with the

distance from water inlet to shaft cover not greater than 0.4 m and not less than the radius of shaft cover.

4.5.4 Water-proof and drainage measures shall be taken for the masonry of underground fire department connection shaft.

5.1 Installation of pipeline network

I Dominant item

5.1.1 Where steel pipes are adopted for pipeline network, the material shall

meet the requirements of the current national standards GB/T 8163 Seamless Steel Tubes for Liquid Service and GB/T 3091 Welded Steel Pipes for Low Pressure Liquid Delivery.

5.1.4 Where coating steel pipes are adopted for pipeline network, the material

shall meet the requirements of the current national standard GB 5135.20 Automatic Sprinkler System - Part 20.Coating Steel Pipe.

5.1.5 Where chlorinated polyvinyl chloride (PVC-C) pipelines are adopted for

pipeline network, the material shall meet the requirements of the current national standard GB 5135.19 Automatic Sprinkler System - Part 19.Plastic

5.1.6 After pipeline connection, the discharge section area shall not be reduced.

As for installation of hot-dip galvanized steel pipe and coating steel pipe, threaded and grooved pipe fitting or flange shall be adopted for connection.

5.1.7 As for installation of thin-walled stainless steel pipe, GTHY, clip bulgy, entrapment, groove or flange shall be adopted for connection.

5.1.17 In case of transverse installation, pipeline should be arranged at a

gradient of 2 per mille ~ 5 per mille and shall slope toward the drainage pipe; where it is difficult to empty water with drainage pipe in partial areas, corresponding drainage measures shall be taken. Where the quantity of sprinklers is less than or equal to 5, plugs