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

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Code for installation and acceptance of fire alarm system

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1 General

1.0.1 This standard is formulated in order to ensure the construction quality and use functions of automatic fire alarm systems, prevent and reduce fire hazards, and protect personal and property safety.

1.0.2 This standard applies to the construction, testing, acceptance and maintenance of automatic fire alarm systems installed in buildings (structures), and does not apply to fire protection systems installed in production and storage places such as gunpowder, explosives, ammunition, and pyrotechnics. Construction, inspection, acceptance and maintenance of automatic alarm system.

1.0.3 The construction, testing, acceptance and maintenance of the automatic fire alarm system shall not only comply with this standard, but also comply with the current relevant national standards.

2.1.1 The divisions and sub-projects of the system shall be divided according to Appendix A of this standard.

2.1.2 The construction of the system should be prepared according to the design requirements. The construction site should have the necessary construction technical standards, a sound construction quality management system and a project quality inspection system. The provisions of B to fill in the relevant records.

2.1.3 The following conditions should be met before system construction.

1 Approved fire protection design documents such as system diagrams, equipment layout plans, wiring diagrams, installation diagrams, linkage control logic design documents,

current national standards for system equipment, operating instructions for system equipment and other technical documents should be complete;

2 The design unit should make technical disclosure to the construction, construction and supervision units, and clarify the corresponding technical requirements;

3 The system equipment, components (parts) and materials should be complete, the specifications and models should meet the design requirements, and normal construction should be guaranteed;

4 The embedded parts and reserved holes related to system construction shall meet the design requirements;

5 The water, electricity and gas used in the construction site and construction shall be able to meet the requirements of continuous construction.

2.1.4 The construction of the system shall be carried out in accordance with the approved engineering design documents and construction technical standards.

2.1.5 The quality control of the construction process of the system shall meet the following requirements.

1 Before the construction of the system, the supervision unit shall organize the construction unit to conduct on-site inspection of materials, equipment and accessories according to the provisions of Section 2.2 of this standard and the inspection items, inspection contents and inspection methods specified in Appendix C, and shall follow the inspection items, inspection contents and inspection methods specified in Appendix C of this standard Fill in the records in accordance with the provisions of C, and those who fail to pass the inspection shall not be used;

2 During the construction of the system, the construction unit shall make relevant records such as construction and design changes;

3 The quality control of each process should be carried out in accordance with the construction technical standards. Inspection should be carried out after the completion of each process. When handing over related professional types of work, it should be inspected and approved by the supervisor engineer. If it is unqualified, it should be rectified. Only after passing the inspection can it enter the next process process;

4 The supervisory engineer shall organize the personnel of the construction unit to conduct a full inspection of the installation quality of the system according to the division of the construction area, the installation process of the system, the regulations in Chapter 3 of this standard and the inspection items, inspection contents, and inspection methods specified in Appendix C, and Records should be filled in according to the provisions of Appendix C of this standard, and the quality inspection of concealed projects should keep on-site photos or video records;

5 After the system construction is completed, the construction unit shall complete the as-built drawing and as-built report;

6 After the system construction is completed, the construction unit shall organize the construction unit and the equipment manufacturer to debug the system according to the design documents, the provisions of Chapter 4 of this standard, and the inspection items, inspection contents, and inspection methods specified in Appendix E of this standard., and the records shall be filled in according to the provisions of Appendix E of this standard. Before system commissioning, a commissioning plan shall be prepared;

7 After the system commissioning is completed, a commissioning report should be prepared, and the construction unit and equipment manufacturing enterprise should submit to the construction unit the system completion drawing, materials, equipment and accessories entry inspection records, installation quality inspection records, commissioning records, product inspection reports, certificates of conformity, etc. Material.

2.2 Material and equipment entry inspection

2.2.1 When materials, equipment and accessories enter the construction site, there should be documents such as list, instruction manual, quality certification document, inspection report of the national statutory quality inspection agency, and compulsory certification products in the automatic fire alarm system. logo.

2.2.2 The name, model and specification of the national compulsory certification products in the system should be consistent with the certification certificate and inspection report.

2.2.3 The names, models, and specifications of non-national compulsory certification products in the system should be consistent with the inspection report. When connecting products not included in the inspection report to the system, a system component compatibility inspection report should be provided.

2.2.4 The specifications and models of system equipment and accessories shall meet the requirements of the design documents.

2.2.5 The surface of system equipment and accessories should have no obvious scratches, burrs and other mechanical damage, and the fastening parts should not be loose.

3.1 General provisions

3.1.1 The arrangement of system components shall comply with the design documents and the current national standard "Code for Design of Automatic Fire Alarm System" GB 50116.

3.1.2 In places with explosion hazards, the wiring of the system and the installation of components shall comply with the relevant provisions of the current national standard "Code for Construction and Acceptance of Electrical Installations in Explosive and Fire Hazardous Environments of Electrical Installation Engineering" GB 50257.

3.2 Wiring

3.2.1 When all kinds of pipelines are exposed, they should be hoisted by separate clamps or fixed by supports, and the diameter of the suspenders should not be smaller than 6mm.

3.2.2 When all kinds of pipelines are laid in the dark, they should be laid in a non-combustible structure, and the thickness of the protective layer should not be less than 30mm.

3.2.3 Compensation measures should be taken when pipelines pass through deformation joints such as settlement joints, expansion joints, and seismic joints of buildings. Both sides of cables crossing deformation joints should be fixed, and an appropriate margin should be left.

3.2.4 The nozzles and joints of pipelines laid in dusty or humid places should be sealed.

3.2.5 When the following conditions are met, the pipeline shall be equipped with a junction box at a place convenient for wiring.

- 1 When the pipeline length exceeds 30m without bending;
- 2 When the pipeline length exceeds 20m and there is one bend;
- 3 When the pipeline length exceeds 10m and there are 2 bends;

4 When the pipeline length exceeds 8m and there are 3 bends.

3.2.6 The outer side of the metal pipeline entry box should be covered with lock nuts, and the inner side should be equipped with guards. When laying in the suspended ceiling, the inner and outer sides of the box should be covered with lock nuts. Corresponding fixing measures should be taken for plastic pipes into the box.

3.2.7 When the tank box is laid, the hanging point or fulcrum should be set at the following positions, and the diameter of the hanging rod should not be less than 6mm.

- 1 The beginning, end and joint of the tank box;
- 2 The corner or branch of the slot box;
- 3 The straight line section is not greater than 3m.

3.2.8 The interface of the tank box should be straight and tight, and the tank cover should be complete, flat and free of warped corners. When installed side by side, the slot cover should be easy to open.

3.2.9 The type and voltage level of the wires should comply with the design documents and the current national standard "Code for Design of Automatic Fire Alarm System" GB 50116.