Firestopping and the Fire Alarm Industry
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Introduction

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- Qualifications
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- Inspection, Testing and Maintenance
- Fire Alarm Contracting Business Model
- NFPA 3
Project Types

- Plan Rooms – Open Bid
- Invited Bid
- Negotiated Bid
- Specified (Engineer of Record)
- Design Build
Project Types

- Contract with General Contractor
- Contract with General Electrical Contractor
- Contract with Building Owner
• Their Paper

• Our Paper
10.4 Personnel Qualifications.

10.4.1 System Designer.

10.4.1.1 Fire alarm system and emergency communications system plans and specifications shall be developed in accordance with this Code by persons who are experienced in the proper design, application, installation, and testing of the systems.
10.4.1.2 State or local licensure regulations shall be followed to determine qualified personnel. Depending on state or local licensure regulations, qualified personnel shall include, but not be limited to, one or more of the following:

(1) Personnel who are registered, licensed, or certified by a state or local authority

(2) Personnel who are certified by a nationally recognized certification organization acceptable to the authority having jurisdiction

(3) Personnel who are factory trained and certified for fire alarm system design and emergency communications system design of the specific type and brand of system and who are acceptable to the authority having jurisdiction
10.4.1.3 The system designer shall provide evidence of their qualifications and/or certifications when requested by the authority having jurisdiction.

10.4.1.4 The system designer shall be identified on the system design documents.
10.4.2 System Installer.

10.4.2.1 Fire alarm systems and emergency communications systems installation personnel shall be qualified or shall be supervised by persons who are qualified in the installation, inspection, and testing of the systems.
10.4.2.2 State or local licensure regulations shall be followed to determine qualified personnel. Depending on state or local licensure regulations, qualified personnel shall include, but not be limited to, one or more of the following:

(1) Personnel who are registered, licensed, or certified by a state or local authority

(2) Personnel who are certified by a nationally recognized certification organization acceptable to the authority having jurisdiction

(3) Personnel who are factory trained and certified for fire alarm system installation and emergency communications system installation of the specific type and brand of system and who are acceptable to the authority having jurisdiction
10.4.2.3 The system installer shall provide evidence of their qualifications and/or certifications when requested by the authority having jurisdiction.
10.4.3 Inspection, Testing, and Maintenance Personnel. (SIG-TMS)

10.4.3.1 Service personnel shall be qualified and experienced in the inspection, testing, and maintenance of systems addressed within the scope of this Code. Qualified personnel shall include, but not be limited to, one or more of the following:

1. Personnel who are factory trained and certified for the specific type and brand of system being serviced

2. Personnel who are certified by a nationally recognized certification organization acceptable to the authority having jurisdiction

3. Personnel who are registered, licensed, or certified by a state or local authority to perform service on systems addressed within the scope of this Code

4. Personnel who are employed and qualified by an organization listed by a nationally recognized testing laboratory for the servicing of systems within the scope of this Code
10.4.3.2 Evidence of qualifications shall be provided to the authority having jurisdiction upon request.
26.3 Alarm Systems for Central Station Service. Alarm systems used to provide central station service shall comply with the general requirements and the use requirements of Section 26.3.
26.3.2 Service Scope. Section 26.3 shall apply to central station service, which consists of the following elements:

(1) Installation of alarm transmitters
(2) Alarm, guard, supervisory, and trouble signal monitoring
(3) Retransmission
(4) Associated record keeping and reporting
(5) Testing and maintenance
(6) Runner service
26.3.3 Contract Requirements. The central station service elements shall be provided under contract to a subscriber by one of the following:

(1) A listed central station that provides all of the elements of central station service with its own facilities and personnel.

(2) A listed central station that provides, as a minimum, the signal monitoring, retransmission, and associated record keeping and reporting with its own facilities and personnel and shall be permitted to subcontract all or any part of the installation, testing, and maintenance and runner service.
(3) A listed alarm service–local company that provides the installation, testing, and maintenance with its own facilities and personnel and that subcontracts the monitoring, retransmission, and associated record keeping and reporting to a listed central station. The required runner service shall be provided by the listed alarm service–local company with its own personnel or the listed central station with its own personnel.

(4) A listed central station that provides the installation, testing, and maintenance with its own facilities and personnel and that subcontracts the monitoring, retransmission, and associated record keeping and reporting to another listed central station. The required runner service shall be provided by either central station.
26.3.4 Indication of Central Station Service. The prime contractor shall conspicuously indicate that the alarm system providing service at a protected premises complies with all the requirements of this Code through the use of a systematic follow-up program under the control of the organization that has listed the prime contractor.

26.3.4.1 Documentation indicating Code compliance of the alarm system shall be issued by the organization that has listed the prime contractor.
26.3.4.2 The documentation shall include, at a minimum, the following information:

(1) Name of the prime contractor involved with the ongoing Code compliance of the central station service

(2) Full description of the alarm system as installed

(3) Issue and expiration dates of the documentation

(4) Name, address, and contact information of the organization issuing the document

(5) Identification of the authority(ies) having jurisdiction for the central station service installation
Central Station Service

- Underwriters Laboratories (UL)
- Factory Mutual Approvals (FM)
- Intertek (ETL)
• National Institute for Certification in Engineering Technologies (NICET)

• Technician Certification Programs:
  – Fire Alarm Systems
  – Inspection and Testing of Water-Based Systems
  – Special Hazards Suppression Systems
  – Water-Based Layout
• International Municipal Signal Association (IMSA)
  – Fire Alarm Interior Level 1
  – Fire Alarm Interior Level 2
• NFPA 72® The National Fire Alarm and Signaling Code®

• Chapter 14 *Inspection, Testing, and Maintenance*
14.1.1 The inspection, testing, and maintenance of systems, their initiating devices, and notification appliances shall comply with the requirements of this chapter.

14.1.4 The requirements of this chapter shall apply to both new and existing systems.
14.2.1.1.1 Inspection, testing, and maintenance programs shall satisfy the requirements of this Code and conform to the equipment manufacturer’s published instructions.

14.2.1.1.2 Inspection, testing, and maintenance programs shall verify correct operation of the system.
14.2.1.2.2 System defects and malfunctions shall be corrected.

14.2.1.2.3 If a defect or malfunction is not corrected at the conclusion of system inspection, testing, or maintenance, the system owner or the owner’s designated representative shall be informed of the impairment in writing within 24 hours.
14.2.2 Responsibilities.

14.2.2.1 The property or building or system owner or the owner’s designated representative shall be responsible for inspection, testing, and maintenance of the system and for alterations or additions to this system.
14.2.2.3 Inspection, testing, or maintenance shall be permitted to be done by the building or system owner or a person or organization other than the building or system owner if conducted under a written contract.

14.2.2.4 Testing and maintenance of central station service systems shall be performed under the contractual arrangements specified in 26.3.3.

14.2.2.5 Service Personnel Qualifications and Experience. Service personnel shall be qualified and experienced in accordance with the requirements of 10.4.3.
14.3 Inspection.

14.3.1 Unless otherwise permitted by 14.3.2 visual inspections shall be performed in accordance with the schedules in Table 14.3.1 or more often if required by the authority having jurisdiction.
14.4.5 Testing Frequency. Unless otherwise permitted by other sections of this Code, testing shall be performed in accordance with the schedules in Table 14.4.5, or more often if required by the authority having jurisdiction.
14.6.2.4 A record of all inspections, testing, and maintenance shall be provided that includes the following information regarding tests and all the applicable information requested in Figure 14.6.2.4:

(1) Date

(2) Test frequency

(3) Name of property

(4) Address

(5) Name of person performing inspection, maintenance, tests, or combination thereof, and affiliation, business address, and telephone number
(6) Name, address, and representative of approving agency(ies)

(7) Designation of the detector(s) tested

(8) Functional test of detectors

(9) Functional test of required sequence of operations

(10) Check of all smoke detectors
(11) Loop resistance for all fixed-temperature, line-type heat detectors

(12) Functional test of mass notification system control units

(13) Functional test of signal transmission to mass notification systems

(14) Functional test of ability of mass notification system to silence fire alarm notification appliances

(15) Tests of intelligibility of mass notification system speakers
(16) Other tests as required by the equipment manufacturer's published instructions

(17) Other tests as required by the authority having jurisdiction

(18) Signatures of tester and approved authority representative

(19) Disposition of problems identified during test (e.g., system owner notified, problem corrected/successfully retested, device abandoned in place)
• New construction projects are down during the past four to three years.
• Seeing some increases in this area.
• Construction projects have a finite end.
• The project will and does come to an end.
• A business model of the fire and intrusion detection industry is recurring revenue.

• It is what drives the industry:
  – Testing
  – Inspection
  – Maintenance

• It is code driven.
  – International Fire Code (IFC)
  – NFPA 1 (Fire Code)
• NFPA 3 Recommended Practice on Commissioning and Integrated Testing on Fire Protection and Life Safety Systems
  – Commissioning
  – Integrated Testing
• Includes passive protection systems.
Thank You

What have you got to lose?