# DESIGN, INSTALLATION AND MAINTENANCE OF FIRE ALARM (F/A) SYSTEMS

**Disciplines:** Fire and Life Safety  
**History:** Revised 02-06-18  
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**PURPOSE:** This Interpretation of Regulations (IR) clarifies who is qualified in California to design, install, and maintain fire alarm systems (F/A) for projects under Division of the State Architect’s (DSA) jurisdiction according to the requirements of the California State Licensing Board (CSLB) and applicable referenced standards for all F/A installations in public schools, community colleges, and state essential services buildings.

### 1. WHO CAN DESIGN F/A SYSTEMS:

1.1 All system design and installation must comply with the edition of NFPA 72 as amended and in force at the time of submittal. An electrical engineer or a C-10 licensed contractor is authorized to design the system within the parameters of their license.

1.2 When the architect or engineer in general responsible charge utilizes construction documents prepared, signed, and/or stamped by other professionals, such as a fire protection engineer or a National Institute of Certification in Engineering Technologies (NICET) III or IV certified person, the architect or engineer in general responsible charge must stamp and sign those documents. DSA will accept the Statement of General Conformance, shown in Appendix A, of DSA IR A-18 (see [http://www.dgs.ca.gov/dsa/Resources/IRManual.aspx](http://www.dgs.ca.gov/dsa/Resources/IRManual.aspx)) in lieu of the signature and seal (or stamp) from the architect or engineer in general responsible charge (Title 24, Part 1, Section 4-225(c) or 4-316(e)).

### 2. WHO CAN INSTALL F/A SYSTEMS:

2.1 The installation of F/A systems designed by an electrical engineer or other individuals as noted in Section 1.2 above may be contracted out to other firms qualified to install F/A systems.

2.2 Any system designed by a C-10 licensed electrical contractor must be installed by that contractor with his/her own employees and under the supervision of the license holder. Such systems may not be installed by another company or individual not professionally associated with the licensed installation contractor.

2.2.1 Sub-contracting of either the design or installation by the contracted C-10 licensed electrical contractor is allowed within the parameters of contract law. However, the original C-10 licensed electrical contractor will remain the supervisor and must retain liability and insurance responsibility for both design and construction.

2.2.2 Employees of C-10 electrical contractors working on circuits that exceed 100 volt-amperes in the State of California shall be tested, and certified by the State to perform work under an C-10 license. Effective January 1, 2006, General Journeyman and Fire/Life Safety Technicians must carry cards, issued by the Division of Apprenticeship Standards (DAS), that prove they are certified, and which must be presented to the authority having jurisdiction, upon request of the code enforcement official.
2.2.3 NFPA 72 requires persons performing system design, installation, inspection and maintenance work to be qualified. Examples of qualified personnel performing installations include the following:

- Licensed Electrical Engineer,
- Persons certified by the manufacturer for the specific type and brand of system to be provided, or
- Persons certified by a nationally recognized organization such as NICET fire alarm level III certified personnel working under the supervision of a C-10 licensed electrical contractor, and
- Personnel licensed, registered or certified by state or local authority.

2.3 Systems designed and submitted utilizing one manufacturer's equipment may be substituted for a different manufacturer's equipment provided the substitution is accomplished via the DSA Construction Change Document (CCD) process, and must include the following:

- Current manufacturer's applicable product data sheets; and
- Battery and voltage drop calculations to match the new product data sheets; and
- Any location changes, additions or deletions of devices or appliances must be shown on updated floor plans.

2.4 NICET certification is a recommended but not a minimum requirement for California state agencies.

2.5 Local ordinances requiring fewer or additional measures, devices, or appliances shall not apply to public school facilities and may not be required by the local fire authority or any other local entity. (Hall vs. City of Taft)

3. WHO CAN MAINTAIN F/A SYSTEMS:

3.1 F/A systems shall be maintained by qualified persons, such as a person trained by the manufacturer to maintain the system. See 2016 NFPA 72, Sec. 10.5.3.4 (2010 NFPA 72, Section 10.4.3 or 2002 NFPA 72, Section 10.2.2.5) for examples of qualified persons.

3.2 Programming of fire alarm control panels shall be done by factory authorized and trained personnel.

3.3 Warranties may be compromised if systems are not maintained according to recognized standards and manufacturer's guidelines.

4. TESTING OF F/A SYSTEMS:

4.1 Acceptance Testing: Acceptance testing of projects under DSA construction oversight shall be performed by the C-10 licensed electrical contractor's qualified supervisory personnel or their installing technicians and witnessed by the project inspector.

4.1.1 The local fire authority may be invited, as a courtesy, to witness the final acceptance test of the DSA approved system so the local fire authority can become familiar with the workings of the system and the system's configurations. The local fire authority is not obligated to witness the test or authorized to delay the testing until witnessing can be scheduled.
4.1.2 The local Fire authority may not require, but may ask for or recommend, changes to the DSA approved system. A CCD shall be generated and processed through DSA. Initiation of any change shall not be performed without prior approval of DSA.

4.2 Reacceptance Testing After Maintenance or Repair: Reacceptance testing performed after maintenance or repairs have been accomplished, shall be made by repair/maintenance technicians trained and/or qualified by the manufacturer or as noted in 2016 NFPA 72, Section 10.5.3.2 (See 2010 NFPA 72, Section 10.4.3 or 2002 NFPA 72, Section 10.2.2 as applicable).

4.2.1 Systems that require extensive replacement, modernization, or upgrade shall be submitted to DSA for review and approval (see IR A-10). Witnessing of tests after routine maintenance or minor repair shall be done by the local fire authority. The responsibility of the local fire authority is to ensure that the system operates as originally installed and approved by DSA.

References:
California Code of Regulations (CCR), Title 24
Part 1, California Administrative Code, Sections 4-225(c) and 4-316 (e)
California Business and Professions Code, Sections 7026.12 & 7058
Title 16, CCR, Professional and Vocational Regulations, Division 8, Article 3, Classifications and Section 832.16
Health & Safety Code 13195 & 13196.5

This Interpretation of Regulations (IR) is intended for use by the Division of the State Architect (DSA) staff and by design professionals to promote more uniform statewide criteria for plan review and construction inspection of projects within the jurisdiction of DSA which includes State of California public elementary and secondary schools (grades K-12), community colleges and state-owned or state-leased essential services buildings. This IR indicates an acceptable method for achieving compliance with applicable codes and regulations, although other methods proposed by design professionals may be considered by DSA.

This IR is reviewed on a regular basis and is subject to revision at any time. Please check DSA’s website for currently effective IRs. Only IRs listed on the web page at www.dgs.ca.gov/dsa/Resources/IRManual.aspx at the time of plan submittal to DSA are considered applicable.