
FIRE ALARM SYSTEM CHANGES IN EXISTING BUILDINGS

Disciplines: Fire & Life Safety

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Division of the State Architect (DSA) documents referenced within this publication are available on the [DSA Forms](#) or [DSA Publications](#) webpages.

PURPOSE

This Interpretation of Regulations (IR) describes the DSA requirements for the complete or partial change of a fire alarm (F/A) system in an existing building due to obsolescence, catastrophic failure, voluntary upgrading, or as part of an alteration or modernization project.

BACKGROUND

Fire alarm system project submittals consist of detailed drawings, manufacturer's documentation, listing documentation, and specifications for the various components and devices intended for installation. Fire alarm submittals related to existing buildings may consist of total replacement, or at other times may include only a portion of an existing system.

1. PROCESS

All changes to an existing fire alarm system require submittal to DSA for review. Upon completion of the work, that portion of the fire alarm system in the scope of work shall be inspected and subjected to reacceptance testing as outlined in Section 14.4 of NFPA 72. Upon successful completion of the acceptance or reacceptance inspection and testing, the NFPA 72 Record of Completion form shall be completed by the fire alarm system contractor and a copy of the completed and signed form given to the Architect or Engineer of Record, the Project Inspector, and the Owner (School or Community College District).

1.1 Total Fire Alarm System Replacement

Fire alarm systems in existing buildings that are replaced in their entirety must be designed and installed compliant with current codes and standards and include extension to any previously unprotected areas.

1.2 Partial System Alteration

It is not required to upgrade an entire building or campus fire alarm system when not totally replacing a system, but the submittal package must provide assurance in the form of a letter from the fire alarm design professional certifying that all components and or devices of the system are compatible. Any new or added components or devices must meet current codes and standards, including California Building Code (CBC) accessibility requirements.

2. DESIGN REQUIREMENTS

All areas undergoing alteration or modernization where the project scope affects the design of existing fire protection and life safety systems shall be required to meet current code requirements with additional devices added to those areas as needed to maintain compliance with current adopted standards.

2.1 Systems shall be designed in accordance with California Building Code (CBC) Section 907, and be installed in accordance with NFPA Standard 72, National Fire Alarm and Signaling Code, as adopted and amended in CBC Chapter 35/CFC Chapter 80, and the manufacturer's listing and installation instructions.

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2.2 Project submittals shall include complete information on drawings, floor plans, detail sections, reflected ceiling plans (RCP), and site plans as necessary to clearly reflect the project scope of work and the existing building construction, current and complete manufacturer's product (cut) sheets, copies of listing documentation from a nationally recognized testing laboratory (NRTL), and current California State Fire Marshal (CSFM) listing sheets.

2.3 Where manufacturer's product (data) sheets include multiple models or reflect multiple operating voltages, the criteria for the specific model being installed shall be clearly identified.

3. CHANGE TO SUBMITTED AND DSA APPROVED DOCUMENTS

Where construction plans and documents have been submitted and approved by DSA, but the accepted fire alarm bid package includes a different manufacturer and or product model for the fire alarm control unit (FACU), power extenders, notification appliances, initiating devices, etc. then the following shall apply:

3.1 Where the system design has not changed (locations of appliances, routing of wire, extension of circuits, etc.) and the voltage demands of the substituted appliances and devices are the same as or less than those approved, a construction change document (CCD-A) shall be submitted to DSA.

The Architect or Engineer in General Responsible Charge shall provide:

3.1.1 A letter from the fire alarm system design professional (subject to DSA review & acceptance) certifying that the design and system requirements have not changed, and the notification appliances and initiating devices have equal or less voltage draws than those originally submitted.

3.1.2 New component or device manufacturer's product data sheets (cut sheets) and associated CSFM listing sheets for each notification appliance, device, etc.

3.2 Where substantial changes are made to the design or the voltage demands of the new manufacturer's equipment are higher than those originally approved, then a "revision" or an "addendum" must be submitted to DSA for review and approval.

4. REPAIR AND MAINTENANCE

4.1 Repair is considered the one-for-one replacement of a defective component or device. New compatible components or devices must be CSFM listed & approved for use with the fire alarm system. Those components previously having a CSFM listing for which a current listing is not available are acceptable.

4.2 Repair of an existing inoperative fire alarm system is considered emergency work and does not require submittal of plans, specifications, or other documents to DSA prior to performing the work. Plans prepared as outlined in Section 2 above, shall be submitted to DSA as soon as possible.

4.3 All repair work is subject to inspection and testing.

5. RESOURCES

Several helpful documents have been provided below.

5.1 Project Submittal Guideline:

- *GL-2: Fire Alarm & Detection Systems*

5.2 DSA Interpretation of Regulations:

- *IR A-6: Construction Change Document Submittal and Approval Process*
- *IR A-18: Use of Construction Documents Prepared by Other Professionals*

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REFERENCES:

2022 California Administrative Code (CAC), Section 4-215
California Building Code (CBC), Section 907
California Fire Code (CFC), Section 907 2022
NFPA Standard 72, as adopted and amended.

This IR is intended for use by DSA staff and by design professionals to promote statewide consistency for review and approval of plans and specifications as well as construction oversight of projects within the jurisdiction of DSA, which includes State of California public schools (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 subject to revision at any time. Please check DSA's website for currently effective IRs. Only IRs listed on the webpage at www.dgs.ca.gov/dsa/publications at the time of project application submittal to DSA are considered applicable.