
FIRE ALARM SYSTEM CHANGES IN EXISTING BUILDINGS

Disciplines: Fire & Life Safety**History:** Revised 03/19/21
Original Issue 04/27/10

Division of the State Architect (DSA) documents referenced within this publication are available on the 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 the construction change document process.

BACKGROUND

Typical fire alarm submittals consist of both the drawings and specifications of the various devices intended for installation. At times the fire alarm submittal will include a totally new system and at other times it will include only a portion of an existing system.

1. PROCESS

All changes to a fire alarm system (excluding maintenance and some repairs, as explained in Section 4) require DSA review. Upon completion of the changed (added, deleted, etc.) appliances, devices or system, that portion of the fire alarm system in the scope of work shall be inspected and subjected to reacceptance testing as outlined in 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, the Owner (School or Community College District) and the Local Fire Authority.

1.1 Total Fire Alarm System Replacement

Fire alarm systems in existing buildings that are replaced in their entirety must be compliant with current codes and standards and include extension to any previously unprotected areas. Fire alarm system plans shall be submitted to DSA when the total project cost exceeds the thresholds described in *IR A-22: Construction Projects and Items Exempt from DSA Review*.

1.2 Partial System Exchange

It is not required to upgrade an entire building or campus fire alarm system (add in other devices or extend current system) when not totally replacing a system, but the basic 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 Standards Code (CBC) accessibility requirements. The system would not require expansion to all areas in the building(s) or campus. A DSA submittal package would be needed for the portion of the system(s) being changed when the projected dollar amount of the project exceeds the thresholds described in IR A-22.

FIRE ALARM SYSTEM CHANGES IN EXISTING BUILDINGS

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 adopted standards.

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 model for the fire alarm control panel (FACP), power extenders, appliances, 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 of Record shall provide:

3.1.1 A letter from the fire alarm system design professional certifying that the design has not significantly changed and the appliances and devices have equal or less voltage draws than those originally submitted, and

3.1.2 New component/device manufacturer's product data sheets (cut sheets) and associated State Fire Marshal listing sheets for each 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

Repair of an existing fire alarm system does not require submittal of plans, specifications or other documents to DSA, except as noted below:

4.1.1 Replacement of all devices and/or notification appliances

If all devices and/or notification appliances are to be replaced, Section 1.1 above would apply.

4.1.2 Replacement of the Fire Alarm Control Panel (FACP) compatible with existing appliances

A replacement FACP from a different manufacturer may be installed if documented as compatible with the existing notification appliances, components and devices. If the replacement FACP is not compatible, then Section 1.1 above would apply since all associated appliances would also need replacement.

4.2 Maintenance

Maintenance of an existing fire alarm system (removal and replacement of one device, appliance or the repair of a shorted wire) does not require submittal of plans to DSA.

5. RESOURCES

Several helpful documents have been provided on the DSA website.

FIRE ALARM SYSTEM CHANGES IN EXISTING BUILDINGS

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*
- *IR A-22: Construction Projects and Items Exempt from DSA review*

REFERENCES:

2019 California Administrative Code (CAC), Section 4-215
California Building Code (CBC), Section 907
California Fire Code (CFC), Section 907
2016 NFPA Standard 72, as 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.