



San Diego County Fire Protection District FIRE MARSHAL BULLETIN

Fire Marshal Bulletin Number: 2024-01

Subject: Requirements for New Fire Alarm Systems or Fire Sprinkler Monitoring Systems; Requirements for Replacement of Components to Existing Systems in Existing Buildings

Effective Date: February 16, 2024

Purpose: The purpose of this bulletin is to describe the requirements for new Fire Alarm Systems (FAS) and Fire Sprinkler Monitoring Systems (FSMS) and replacement of components of FASs and FSMSs. FAS and FSMS installations shall comply with the requirements of this bulletin along with the current adopted editions of the California Building Code (CBC), County of San Diego Consolidated Fire Code (CFC), California Electrical Code (CEC), and the National Fire Protection Association (NFPA) National Fire Alarm and Signaling Code (NFPA 72).

New Fire Alarm or Fire Sprinkler Monitoring Systems

Step 1 - Plan Review

Prior to installation of a new FAS or FSMS, plans for the system must be submitted to the San Diego County Fire Protection District for review and approval. See below for further information:

Fire Alarm System (FAS) Plans

Provide three (3) copies of each item listed below:

- Fire Alarm System drawings
- Fire Alarm Calculations (if not provided on system drawings)
- Manufacturer specification sheets

Plans shall be reviewed and stamped by a licensed California Fire Protection Engineer prior to SDCFPD review and approval.

Plan Delivery Options:

- In-person at the SDCFPD Counter (5560 Overland Ave, Ste. 400, San Diego, CA 92123).
- Mail to San Diego County FPD (5560 Overland Ave, Ste 400, San Diego, CA 92123).
Include self-addressed pre-paid envelope(s) with all mail submittals.

Fire Sprinkler Monitoring System (FSMS) Plans

Provide three (3) copies of each item listed below:

- Fire Sprinkler Monitoring System drawings
- Manufacturer specification sheets

FMB #2024-01 (02/16/2024)

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San Diego County Fire Protection District

FIRE MARSHAL BULLETIN

Plans do not need to be reviewed and stamped by a licensed California Fire Protection Engineer prior to SDCFPD review and approval.

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Step 2 - Installation

After plans have been reviewed and approved, the following requirements will be applicable for installation of control panels for **new** FASs and FSMSs:

A. Panel Location

In other than high-rise buildings, the control panel for FASs and FSMSs shall be located either in the main lobby at the entrance to the building or in a room such as a utility closet, electrical room or telephone room. The panel shall be protected against unauthorized access. If located in a room, the room shall be labeled in accordance with CFC 509. Working clearances shall comply with CEC Article 110.

Other panel locations can be considered on a case-by-case basis by San Diego County Fire Protection District. In high-rise buildings, the control panel shall be located in the fire command center as required by CBC 911.

B. Remote Annunciators

When the control panel will not be installed in the main lobby, a remote annunciator panel shall be provided inside the building at the main entrance. If the building does not have a main entrance, the remote annunciator shall be placed on the address side of the building.

C. Sites With Multiple Buildings

Each individual building equipped with a FAS or FSMS shall have a separate control panel. The panels shall be permitted to be interconnected so that only one panel communicates with the supervising station. The signals sent to the supervising station must clearly identify the specific building in alarm. Silence and reset capabilities shall only be permitted at the panel of the building where the signal originated.

Situations where multiple buildings on a site share one control panel may be approved on a case-by-case basis by San Diego County Fire Protection District and may be subject to additional requirements.



San Diego County Fire Protection District

FIRE MARSHAL BULLETIN

D. Communications Methods

Communications methods which comply with NFPA 72, Chapter 26 and are listed by the California State Fire Marshal shall be permitted. Such methods include but are not limited to digital alarm communicator transmitters (DACTs), cellular communicators, and transmitters using Internet Protocol (IP). Only one phone line may be used along with another method approved by NFPA 72 Chapter 26 when using a DACT.

If IP communicators are used, they shall be installed in such a manner that will not allow the loss of communication with the supervising station when maintenance to the server is being performed.

E. Disable Buttons

“Hot” buttons on control panels shall not be programmed to disable notification appliances or any other life safety functions being controlled by the control panel.

F. Combination Fire and Burglar Alarm Panels

Combination fire and burglar alarm systems shall not be permitted. Combination panels listed by the California State Fire Marshal for commercial fire alarm use are permitted provided that they are only used for fire alarm purposes.

Step 3 - Inspections

The following inspections, at a minimum, must be completed by a Fire Prevention Specialist with the San Diego County Fire Protection District:

See [Attachment A](#) for list of required inspections.

To schedule an inspection, contact the Fire Prevention Specialist who approved the plans.

Existing Fire Alarm or Fire Sprinkler Monitoring Systems - Replacement of Control Panels or other Components

The intent of replacement is to minimize down-time of the existing system, eliminate nuisance alarms, re-establish proper operation of the system, and maintain the original design of the system as approved. This need for a repair or replacement is not intended to bring the existing system up to current code requirements. Existing devices not compatible with a new control panel shall be replaced on a one-for-one basis.

NOTE: Contact the San Diego County Fire Protection District right away for any situation where an existing FAS or FSMS is inoperable or will be placed out of service.

Step 1 - Plan Review

Prior to replacement of a control panel or other component of an existing FAS or FSMS, plans for the replacement must be submitted to the San Diego County Fire Protection District for review and approval. See below for further information:



San Diego County Fire Protection District FIRE MARSHAL BULLETIN

Fire Alarm System (FAS) Plans

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- Fire Alarm System drawings
- Fire Alarm Calculations (if not provided on system drawings)
- Manufacturer specification sheets

Plans shall be reviewed and stamped by a licensed California Fire Protection Engineer prior to SDCFPD review and approval.

Plan Delivery Options:

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Fire Sprinkler Monitoring System (FSMS) Plans

Provide three (3) copies of each item listed below:

- Fire Sprinkler Monitoring System drawings
- Manufacturer specification sheets

Plans do not need to be reviewed and stamped by a licensed California Fire Protection Engineer prior to SDCFPD review and approval.

Plan Delivery Options:

- In-person at the SDCFPD Counter (5560 Overland Ave, Ste. 400, San Diego, CA 92123).
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Step 2 - Installation

After plans have been reviewed and approved, the replacement of existing control panels or other components, or the upgrade of an **existing** FAS and FSMS shall be determined according to the scenarios listed below:

A. Panel Failure

Replacement of a control panel due to catastrophic failure will not require the existing FAS or FSMS be upgraded to comply with current code requirements. Any devices or appliances that need to be replaced due to the upgrade will be permitted to be replaced on a one-for-one basis in the existing locations, provided that the devices and appliances are installed in accordance with their listings and codes in effect when the system was installed.

B. Model Discontinued and/or No Longer Supported by the Manufacturer

A control panel that has been discontinued and is no longer supported by the manufacturer shall be permitted to be upgraded to the next model which has replaced it. Any devices or



San Diego County Fire Protection District

FIRE MARSHAL BULLETIN

appliances that need to be replaced due to the upgrade will be permitted to be replaced on a one-for-one basis in their existing locations, provided that the devices and appliances are installed in accordance with their listings and codes in effect when the system was installed.

C. Voluntary Replacement of a Control Panel

Replacing a functional control panel with a new panel from a different manufacturer will require the existing core areas of the building be upgraded to meet current code requirements. Core areas include lobbies, public bathrooms, common corridors, equipment/mechanical rooms and means of egress pathways.

D. Tenant Improvements / Building Addition or Expansion

When an existing control panel is not able to support new devices or appliances required for a building tenant improvement or a building addition or expansion, the new control panel and all new work associated with the tenant improvement shall comply with current code requirements. In addition, core areas of the building must also be brought up to compliance with current code requirements. Core areas include lobbies, public bathrooms, common corridors, equipment/mechanical rooms and means of egress pathways.

E. Smoke Control

All replacements of Firefighter's Smoke Control Panels will require a smoke control review. A meeting with the fire alarm reviewer may be required to discuss the design of the panel. Where a FACP is replaced and that FACP interfaces with a Firefighter's Smoke Control Panel or controls a smoke control system, a sequence of operations for the smoke control system must be provided on the plans.

F. Other Scenarios

When a control panel replacement is proposed that does not meet one of Scenarios A-E above, contact the San Diego County Fire Protection District to discuss the proposed system prior to any submissions.

Step 3 - Inspections

The following inspections, at a minimum, must be completed by a Fire Prevention Specialist with the San Diego County Fire Protection District:

See [Attachment B](#) for list of required inspections.

To schedule an inspection, contact the Fire Prevention Specialist who approved the plans.



San Diego County Fire Protection District

FIRE MARSHAL BULLETIN

Attachment A

Required Inspections for Fire Alarms:

- Pre-wire Inspection (Pre-connection of Devices).
- Final Inspection.

Items Checked at Pre-wire Inspection:

- Bushings inserted at conduit entrance.
- Correct location of devices.
- If wires are pulled, verify that the correct material is being used per approved plans.

Functions tested at Final Inspection:

- All components installed and functional per approved plans.
- Power supplies to conform to NFPA 72 10.6.
- 24hr Battery supply test NFPA 72 10.6.7.2
- 4 Hr. if connected to an emergency backup generator conforming with NFPA 72 10.6.7.3.
- Dispatch to log all call activities they will receive from the monitoring company.
- 5 Minute test in back-up battery power.
- 15 Minute test for in-building fire emergency voice/alarm communications service.
- Power back on – Verify Dedicated circuit(s) and labeled and equipped with circuit breaker lock device.
- Verify dedicated circuit breaker location on fire alarm, and power supply, panel doors.
- Alarm test in A/C power.
- Check charge / voltage going into battery.
- Input/output circuits – Disconnect a leg and ensure FACP receives trouble signal(s).
- Functional test of all initiating devices, such as:
 - Pull stations
 - Smoke alarms
 - CO alarms
 - Heat detectors
 - Water flow test
 - Tamper switch
 - Ground fault
 - OS&Y/ PIV Tamper switch(es)
 - Kitchen extinguishing system
 - Alternative fire suppression (AFS) system
- Communications failure
- Verify End-of-Line (EOL) device by removing detectors – EOL devices shall be clearly labeled.
- All initiating devices must be labeled with unique device address.
- Duct Detectors

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San Diego County Fire Protection District

FIRE MARSHAL BULLETIN

- Reasonable access to duct detectors must be provided.
- Duct detector housing and test switches (if any) shall be clearly labeled with unique device address.
- Supervisory signal
- Shut down of HVAC System
- Sampling tubes installed in correct direction and position.
- Voltage of battery recheck when disconnected.
- Waterflow alarm must come on within 90 secs (preferably set the switch around 45 seconds).
- Verify date of manufacturer (DOM) of the sealed lead acid batteries.
- Compare installed battery MAH to specs in plans.
- Verify postage of "FIRE ALARM PANEL INSIDE" sign on exterior of door.
- A system record of completion form is required after final inspection. NFPA 72 7.8.2.

- **Emergency Radio Responder Coverage Systems (ERRCS):**
 - Automatic supervisory signals shall include the following:
 - Loss of normal AC power supply.
 - System battery charger(s) failure.
 - Malfunction of the donor antenna(s)
 - Failure of active RF-emitting device(s).
 - Low Battery capacity at 70% reduction of operating capacity.
 - Failure of critical system components.
 - The communications link between the fire alarm system and the ERRCS.



San Diego County Fire Protection District FIRE MARSHAL BULLETIN

Attachment B

Required Inspections and Testing for Fire Alarm and Monitoring modifications / component replacement:

Final Inspection

- All components installed and functional per approved plans.
- All components installed are new.
- When changes are made to the fire alarm site-specific software (NFPA 72 3.3.288.2), the following shall apply as per NFPA 72 14.4.2.4:
 - (1) All functions that are known to be affected by the change shall be 100% tested.
 - (2) In addition, 10% of initiating devices that are not directly affected by the change (up to a max of 50 devices), shall be operationally tested and verified.
 - (3) A revised record of completion will be required at final inspection as per NFPA 72 (7.5.6).
- Load test batteries to NFPA 72 T14.4.3.2.
- All testing to occur with system live, confirming times and alarms with Dispatch center (Testing is at Inspector's discretion).
- Dedicated circuit breaker location shown on FACP and circuit breaker labeled and locked in the dedicated electrical panel.