

### 3.08 Sleeping Area Fire Alarm Requirements (2025)

**Reference:** San Francisco 2016 Ordinance 165-16; San Francisco 2021 Ordinance 077-21; 2025 SFFC Section 1103.7.6.1; 2025 NFPA 72 Section 18.4.6 — “Sleeping Area Requirements”

**Purpose:** To clarify requirements to satisfy the Am. Ord. 77-21, File No. 210259, App. 5/28/2021, Eff. 6/28/2021 and 2025 San Francisco Fire Code (SFFC) Section 1103.7.6.1.

*This 2025 San Francisco Fire Code Section 1103.7.6.1 is amended by SFBOS on Am. Ord. 77-21, File No. 210259, App. 5/28/2021, Eff. 6/28/2021*

**Scope:** Compliance with this administrative bulletin shall include all existing (R-2) residential buildings with an existing building fire alarm system. The building owner shall upgrade the building fire alarm system (if necessary) to comply with sound level requirements for sleeping areas set forth in 2025 NFPA 72 Section 18.4.6.1 as amended from time to time.

#### **Exceptions:**

1. If the existing R-2 building has only a dedicated function(s) fire alarm system, such as for water-flow and supervisory (AKA: “Sprinkler Monitoring System”), SFFC Section 1103.7.6.1 shall not apply in that case.
2. Existing R-2 residential buildings that are not provided with a building fire alarm system shall comply with 2025 CFC Section 1103.7.6.

#### **I. NFPA 72 REFERENCE FOR SLEEPING AREA REQUIREMENTS**

The applicable NFPA 72 edition as adopted by 2025 CFC Chapter 80 is the 2025 edition. However, the following previous editions are referenced in this bulletin as they were part of the original San Francisco sleeping area ordinance and they are included in this administrative bulletin for reference only. All fire alarm systems that are required to comply with the 2025 San Francisco Fire Code (SFFC) Section 1103.7.6.1 and this administrative bulletin shall reference the 2025 edition of NFPA 72.

##### **1. 2013 NFPA 72 Section 18.4.5.1**

*“Where audible appliances are installed to provide signals for sleeping areas, they shall have a sound level of at least 15 dB above the average ambient sound level or 5 dB above the maximum sound level having a duration of at least 60 seconds or a sound level of at least 75 dBA, whichever is greater, measured at the pillow level in the area required to be served by the system using the A-weighted scale (dBA).”*

##### **2. 2013 NFPA 72 Section 18.4.5.2**

*“If any barrier such as a door, curtain, or retractable partition is located between the notification appliance and the pillow, the sound pressure level shall be measured with the barrier placed between the appliance and the pillow.”*

## 3.08 Sleeping Area Fire Alarm Requirements (2025)

### 3. 2013 NFPA 72 Section 18.4.5.3

*Effective January 1, 2014, audible appliances provided for the sleeping areas to awaken occupants shall produce a low frequency alarm signal that complies with the following:*

1. *The alarm signal shall be a square wave or provide equivalent awakening ability*
2. *The wave shall have a fundamental frequency of 520 Hz +/- 10 percent.*

## II. GENERAL REQUIREMENTS

A. **Sleeping Areas (SFFD Definition).** Sleeping areas shall include all areas intended for sleeping and also areas that could be potentially used for sleeping as included in NFPA 72 Section A.18.4.6.1 Items (1) through (6).

1. **Existing Fire Alarm System for SFFC 1103.7.6.1 Compliance.** If the existing fire alarm system has existing audible appliances that achieve the sound pressure level requirements of 2025 NFPA 72, they shall be acceptable, even if they do not produce Low-Frequency tones. To demonstrate and document compliance with the requirement, the following steps shall be taken:

A. **Option 1: Documentation for Reference.** The following steps shall apply if documentation of the existing fire alarm system is provided showing compliance of SFFC 1103.7.6.1:

- (1) **Previously Approved Fire Alarm Plan.** Provide a copy of the previously approved and issued (stamped by SFFD Plan-Check inspector and has a "complete" status in Permit Tracking System (PTS) fire alarm plans including Cover Sheet, Equipment list, Sequence of Operation Matrix, Floor plans with devices and appliances layout, Riser Diagram, and Battery + Voltage drop calculations. The floor plans must specifically show audible appliances in each sleeping area/bedroom (living rooms, dens, etc. are not required to show audible appliances).
- (2) **Proof of Inspection.** Provide a proof of a completed Fire Inspection associated with the permit.
- (3) **Statement.** In addition to the required information above, provide a wet-signed statement on a letter/document signed by the owner indicating the following: *"The existing fire alarm system installed at my building located on (Building address) was permitted under Permit Application (PA #) and was accepted after a Fire Inspection dated (Date/record of Inspection) is operational and maintained as it was installed (Indicate Fire Alarm Service Company Name, Contact information and License #) , and there were no changes made to the fire alarm system after it was installed and accepted by SFFD."*
- (4) **Submission.** All the above information, once submitted to the SFFD shall be sufficient to consider the existing fire alarm system to be in compliance with the minimum audibility requirements of 2025 SFFC Section 1103.7.6.1 and this Administrative Bulletin. A system upgrade of the existing High-Frequency audible appliance to Low-Frequency audibility shall not be required. Additional audible appliances shall not be required to be added in living areas/dens, etc. and an audibility test by a C-10 Contractor shall not be required.

### 3.08 Sleeping Area Fire Alarm Requirements (2025)

B. **Option 2: Audibility Test.** If compliance with all the required documentation listed in Option 1 above is not achieved, the following conditions shall apply for an audibility test:

(1) **Qualified Audibility Testing Personnel.** An audibility test of the existing fire alarm system may be performed by a licensed C-10 contractor or California licensed qualified engineer.

(2) **Test Results Submission.** The test results shall be documented in a report, on company letterhead, indicating the date the test was performed and statement confirming the test was conducted using a calibrated and approved dBA meter. Included in this report shall be data for each dwelling unit and/or sleeping unit, indicating the sound level in dBA readings in each bedroom of at least 75 dBA. This report shall then be placed on minimum 11" x 17" single sided sheets (2 sets required when submitted).

a. **Size and Documentation.** All fonts on all sheets shall be a minimum 1/8" font size. All plans shall be of uniform size (11" x 17" minimum), with a plan of each floor. If floor plans are provided, they must be clear with legible text and symbols so they could be electronically scanned. For Electronic Plan Review (EPR) via Bluebeam: The applicant shall follow all DBI specific requirements for EPR submission and shall provide all the required information included in this section in electronic format. The requirements of this bulletin shall apply to both paper plans and EPR submittals, as applicable.

(3) **Application and Scope of Work.** With the submittal report package, a \$1.00 Fire Only permit (on the "pink" application form cost evaluation field) shall be applied for over the counter. The scope of the application shall read *"To verify existing sound levels in sleeping areas, complying with SFFC Section 1103.7.6.1"*.

(4) **Inspection.** Upon issuance of the permit, a random sampling or a complete inspection (at the discretion of the fire inspector) shall be witnessed by the District Fire Inspector to verify the sound levels indicated on the test report. The qualified audibility testing person who conducted the sound level measurements for the report shall be in attendance with a calibrated and approved dBA meter. Upon successful completion of the sound level verification inspection, the permit shall be completed. (No Electrical Inspection required).

2. **New Low-Frequency Audible Appliances.** When new audible appliances are required to meet the minimum 75 dBA sound level in sleeping areas, the following conditions shall apply:

A. **CSFM Listed.** The audible appliances shall be current CSFM listed as Low-Frequency audible appliances.

B. **Additional Locations.** New Low-Frequency audible appliances shall also be provided in the living room/area and in any other room/area within the dwelling unit that potentially could be used for sleeping. See NFPA 72 Section A.18.4.6.1 Items (1) through (6).

### 3.08 Sleeping Area Fire Alarm Requirements (2025)

**Exception:** If the remaining sleeping areas already meet the 75 dBA requirements with their existing High-Frequency audible appliance(s) and it is possible to distinguish (hear) the Temporal-3 pattern fire alarm alert tone, additional new Low-Frequency audible appliances are not required in that area and the existing High-Frequency audible appliances are acceptable.

3. **Fire Alarm Work.** Any fire alarm work associated with this bulletin shall comply with the applicable sections in 2025 SFFD Administrative Bulletin 2.01.
4. **Wireless Fire Alarm System.** Wireless fire alarm system equipment shall be permitted to be used for this application in accordance with 2025 SFFD Administrative Bulletin 2.01 specific requirements.
5. **Initiating Devices.** At least one initiating device per floor is required to be provided if each floor does not have an initiating device(s) for the existing fire alarm system (smoke detector or pull station). See SFFD 2025 Administrative Bulletin 3.02 for annunciation zoning requirements.
6. **Fire Alarm Control Unit (FACU) Replacement Requirements.** If the existing FACU is being replaced with a new FACU, the following applicable requirements shall also apply:
  - A. **Dedicated Circuit.** The primary power source for the Fire Alarm Control Unit (FACU) and remote power supplies shall be from a dedicated circuit. This circuit shall be labeled at both the electrical sub panel and on the inside of the FACU/Power supply door and be provided with a circuit lock (if it is not installed in a locked room). If the existing FACU and/or remote power supplies did not have dedicated power circuit(s), a new dedicated circuit(s) must be provided for the new FACU and any remote power supply (if provided). The building owner shall be responsible to provide the dedicated power circuit(s) if required. The dedicated power circuit(s) shall be in accordance with the 2025 SFEC and be provided by a CA licensed electrical contractor (not required to be the same C-10 fire alarm contractor performing the fire alarm work).
  - B. **Current Code vs Like-for-Like Basis.** Where applicable, a replacement fire alarm system design shall differentiate the intent to meet current codes or be replaced on a like-for-like basis per CSFM Code interpretation 12-001 and information bulletin dated 9/4/2008 (These two documents shall be scanned onto the fire alarm permit plans). Fire alarm designs with the intent to be replaced on a like-for-like basis shall require previously approved fire alarm plans as reference.
  - C. **Communicator.** If not provided for the existing fire alarm system, a new wireless communicator shall be required per 2025 SFFD Administrative Bulletin 2.01.
  - D. **New Initiating Devices.** If the existing fire alarm system does not have existing initiating devices per current codes to generate the activation of the fire alarm notification system, additional initiating devices shall be required to be provided and installed per current codes. This will include both automatic and manual initiating devices. The following conditions shall apply:
    - (1) **Smoke Detectors.** When the building is not fully sprinklered per NFPA 13 or NFPA 13R, new smoke detectors shall be installed in all interior corridors leading to dwelling units per the 2025 San Francisco Fire Code Section 907.2.9.4 and SFFD 2025 Administrative Bulletin 2.01 Section V.M.

### 3.08 Sleeping Area Fire Alarm Requirements (2025)

(2) **Pull Stations.** If new manual pull stations are required to be provided at required exits, they shall be installed in approved locations within 5 feet to the entrance of each required exit at 42"-48" elevation above the finished floor (AFF). Existing fire alarm boxes (manual pull stations) which are installed at all required exits at higher elevation than 42"-48" AFF, shall be permitted to remain at their current location and elevation.

E. **Notification Appliances.** If the existing fire alarm system does not have a current code complaint audible and visual notification system in common areas of the building outside the dwelling units, the following conditions shall apply:

(1) Additional audible and visual appliances shall be provided in the common areas for general public notification per 2025 NFPA 72 applicable requirements.

(2) If the light intensity (candela) rating coverage of the existing strobes does not meet 2025 NFPA 72 requirements, they will have to be modified by selecting a higher candela rating or by replacing the existing strobes with new strobes.

**Exceptions:**

(1) If existing unsynchronized strobes are provided in common areas and have candela (CD) rating coverage per 2025 NFPA 72, they shall not have to be replaced with new synchronized strobes.

(2) If existing audible appliances such as horns, bells, sounders, speakers, etc. are provided in common areas and generate minimum 50 dBA sound level (which is 15 dBA above the assumed 35 dBA average sound level per 2025 NFPA 72 Table A.18.4.4), they shall not have to be replaced with new audible appliances if they do not interfere with the Temporal-3 fire alarm alert tone inside the dwelling units and sleeping areas. This will be verified by the Fire inspector at the time of inspection.

F. **Compatibility Listing and Test.** When the existing FACU is replaced but the existing initiating devices are not replaced, Compatibility Listing (backwards compatibility) between the new FACU and the existing initiating devices must be provided by the applicant and be placed on the fire alarm permit plans. The plans shall indicate that a 100% test of all the fire alarm system functions plus 10% of all existing initiating devices is required per the approved fire alarm Sequence of Operation Matrix (SOOM). All new/replacement fire alarm system devices and components (if provided) shall be 100% tested.

G. **Annunciation.** If an existing fire alarm remote annunciator is not provided, the following conditions shall apply (Exceptions under 2025 CFC 907.6.3 for initiating device identification are not permitted):

(1) **Main Entrance.** A new LCD or LED annunciator shall be provided at the main building entrance (SFFD response point) in an approved location, where required, per 2025 SFFD Administrative Bulletins 2.01, 3.01, and 3.02.

### 3.08 Sleeping Area Fire Alarm Requirements (2025)

- (2) **LCD Annunciator.** Shall be required for any building where the existing FACU is not located at the main entrance, and where LED annunciator is not required per 2025 SFFD Administrative Bulletin 3.02.
- (3) **LED Annunciator.** The following conditions shall apply for LED Annunciators:
  - a. **High-Rise Buildings.** Required for any high-rise building at the Fire Command Center (FCC) or other approved location in high-rise buildings without a FCC.
  - b. **Low-Rise Buildings.** Required for any low-rise building with five (5) or more levels per 2025 SFFD Administrative Bulletin 3.02.
  - c. **Case-By-Case.** Required on a case-by-case basis, the SFFD may require LED or Graphic annunciator for buildings with four (4) or less levels based on the specific building configuration.
  - d. **Layout.** The LED annunciator layout shall be provided on the fire alarm permit plans, and its layout shall comply with 2025 SFFD Administrative Bulletin 3.01.
- (4) **Key Map.** A key map/sign shall be required to be mounted adjacent the LCD or LED annunciator with a “You Are Here” symbol and the following features: Location of FACU, other buildings in the complex (if applicable), Egress stairs, Elevators, Exits Doors, Horizontal Exits, FDC(s), locations of other Emergency Systems control units and other required features on a case-by-case basis, as applicable. The owner shall be responsible for providing this required key map/sign.

#### **Notes:**

- 1. **Pre-Application Meeting.** If any of the specific requirements above or any other applicable code requirements are not clear or require further and specific SFFD interpretation, the building owner or the permit applicant may request to have a pre-application meeting with the SFFD by submitting a pre-application meeting request form.

<https://sf-fire.org/services/plan-check#pre-ap>