3.08 Sleeping Area Fire Alarm Requirements (2019)

**Reference:** San Francisco 2016 Ordinance 165-16; 2019 SFFC Section 1103.7.6.1; 2013 NFPA 72 Section 18.4.5—“Sleeping Area Requirements”

**Purpose:** To clarify requirements to satisfy the 2016 CCSF Ordinance 165-16 and San Francisco Fire Code (SFFC) Section 1103.7.6.1.

**Scope:** Compliance shall include all residential buildings with three units or more with an existing fire alarm system. The building owner shall upgrade the fire alarm system to comply with sound level requirements for sleeping areas set forth in section 18.4.5.1 of NFPA 72 (2013 edition) as amended from time to time, upon any of the following:

(A) Before completion of work on a building permit with a cost of construction of $50,000 or more, excluding seismic upgrade work required per the Existing Building Code.

(B) On or prior to July 1, 2021.

(C) For buildings sold or transferred after September 1, 2017, twelve months after the sale of the property, whichever occurs first.

**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).

**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.

**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.
Specific SFFD Requirements:

1. If the existing fire alarm system has existing audible appliances that achieve the sound pressure level requirements of NFPA 72-2013 they shall be acceptable even if they do not produce Low-Frequency tones. An audibility test shall be performed by a licensed C-10 contractor to demonstrate audibility compliance. The test results shall be submitted to a SFFD fire inspector to be verified.

2. If required, any new audible appliances shall be CSFM listed Low-Frequency audible appliances.

3. Any fire alarm work associated with this bulletin shall comply with the applicable sections in SFFD Administrative Bulletin 2.01.

4. Wireless fire alarm system equipment shall be permitted to be used for this application per SFFD Administrative Bulletin 2.01 specific requirements.