

Visual Alarms

Serving Deaf & Hard of Hearing Students

Visual emergency alerting systems provide equal access and allow people who are deaf or hard of hearing to evacuate safely during emergencies.



Alarms Systems

The Federal Emergency Management Agency, ADA Standards for Accessible Design, and Uniform Federal Accessibility Standards provide the following standard practices:

- Ideally, fire alarms can be hard-wired into the existing building system with a battery back-up.
- Alarms should have both audible and visual alerts. Audible alerts should not to exceed 110db.
- If the alarm's sound pattern is of the T-3 variety, then a bed-shaker alert system can also be used in conjunction with the hard-wired alarm.

Hard-Wired Alarms

Stand-alone fire alarms are not triggered until fire or smoke actually reaches the alarm. If there is a fire on the third floor, the first-floor stand-alone alarm would remain silent until the fire reached it. This situation could be life-threatening for deaf or hard of hearing people, giving them less time to react to an emergency. They also need to be close enough to see the flashing light on the stand-alone alarm. Hard-wired alerts flash on all alarms in the building.

Laws

- **2010 ADA Standards for Accessible Design:**
702.1 General. Fire alarm systems shall have permanently installed audible and visible alarms complying with NFPA 72 (1999 or 2002 edition) (incorporated by reference, see “Referenced Standards” in Chapter 1), except that the maximum allowable sound level of

audible notification appliances complying with section 4-3.2.1 of NFPA 72 (1999 edition) shall have a sound level no more than 110 dB at the minimum hearing distance from the audible appliance. In addition, alarms in guest rooms required to provide communication features shall comply with sections 4-3 and 4-4 of NFPA72 (1999 edition) or sections 7.4 and 7.5 of NFPA 72 (2002 edition).

- **The Uniform Federal Accessibility Standards:**
4.28.3* Visual Alarms. If provided, electrically powered internally illuminated emergency exit signs shall flash as a visual emergency alarm in conjunction with audible emergency alarms. The flashing frequency of visual alarm devices shall be less than 5 Hz. If such alarms use electricity from the building as a power source, then they shall be installed on the same system as the audible emergency alarms.

4.28.4* Auxiliary Alarms. Accessible sleeping accommodations shall have a visual alarm connected to the building emergency alarm system or shall have a standard 110-volt electrical receptacle into which such an alarm could be connected. Instructions for use of the auxiliary alarm or connection shall be provided.

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