

**40.1 GENERAL**

If emergency warning systems are provided, then they shall include both audible alarms and visual alarms.

40.1.1 *Sleeping accommodations* for persons with hearing impairments (see **521 CMR 8.4.5**) shall have an alarm system that complies with **521 CMR 8.6, Sleeping Accommodations**.

40.1.2 Emergency warning systems in medical care *facilities* may be modified to suit standard health care alarm design practice.

**40.2 AUDIBLE ALARMS**

If provided, audible emergency alarms shall produce a sound that exceeds the prevailing equivalent sound level in the room or space by at least 15 dbA or exceeds any maximum sound level with a duration of 60 seconds by 5 dbA, whichever is louder. If an audible alarm in an adjacent space provides the proper decibel level within a room, then only the visual alarm is needed. Sound levels for alarm signals shall not exceed 120 dbA.

**40.3 VISUAL ALARMS**

At a minimum, visual signal appliances, if provided, shall be provided in *buildings* and *facilities* in each of the following areas: restrooms and any other general usage areas (e.g. meeting rooms), hallways, and lobbies.

40.3.1 Visual alarm signal appliances shall be integrated into the *building* or *facility* alarm system. If single station audible alarms are provided, then single station visual alarm signals shall be provided.

40.3.2 Visual alarm signals shall have the following minimum photometric features:

- a. The lamp shall be a xenon strobe type or equivalent.
- b. The color shall be clear or nominal white (i.e., unfiltered or clear filtered white light).
- c. The maximum pulse duration shall be two-tenths of one second (0.2 sec) with a maximum duty cycle of 40%. The pulse duration is defined as the time interval between initial and final points of 10% of maximum signal.
- d. The intensity shall be a minimum of 75 candela.
- e. The flash rate shall be a minimum of 1 Hz and a maximum of 3 Hz.

40.3.3 Visual alarm signals shall have the following location features:

- a. The appliance shall be placed 80 inches (80" = 2032mm) above the highest floor level within the space or six inches (6" = 152mm) below the ceiling, whichever is lower.
- b. In general, no place in any room or space required to have a visual signal appliance shall be more than 50 feet (50' = 15m) from the signal (in the horizontal plane). In large rooms and spaces, such as auditoriums, exceeding 100 feet (100' = 30m) across, without obstructions six feet (6' = 2m) above the finish floor, devices may be placed around the perimeter, spaced a maximum 100 feet (100' = 30m) apart, in lieu of suspending appliances from the ceiling.
- c. No place in common corridors or hallways in which visual alarm signaling appliances are required shall be more than 50 feet (50' = 15m) from the signal.

**40.4 AUXILIARY ALARMS**

Units and *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 can be connected and a means by which a signal from the *building* emergency alarm system can trigger such an auxiliary alarm.

40.4.1 When visual alarms are in place the signal shall be visible in all areas of the unit or room.

**ALARMS**

40.4.2 Instructions for use of the auxiliary alarm or receptacle shall be provided.

NON-TEXT PAGE