

Visible Alarms

Wall mounted visible notification devices shall be located not less than 80 inches AFF and not greater than 96 inches AFF. Listed ceiling mounted visible notification devices may be provided at or below 30 feet AFF.

Any area of an occupancy having an ambient sound level of 105 decibels or where employees are provided with full time or temporary hearing protection shall be provided with visible notification appliances.

Corridors and passageways not exceeding 20 feet in width may use minimum 15 candela devices at 100 foot spacing with devices located within 15 feet of terminations. Any change in elevation or obstruction shall be treated as a termination. All other areas of the occupancy shall be provided with visible notification appliances in accordance with their light distribution rating or equivalent to 0.0375 lumens per square foot.

Visible notification appliances shall be installed in all areas of the occupancy accessible to the public. This includes restrooms, conference rooms and reception areas. Visible alarm appliances shall be clear or nominal white not exceeding 1000 candela and a flash rate of 1 Hz minimum to 2 Hz maximum.

Visible notification appliances are not allowed in stair enclosures. Where more than 2 visible notification appliances are within the field of view they shall flash in synchronization.

Audible Alarms

The alarm signal shall be a distinctive sound which is not used for any other purpose other than the fire alarm. Alarm-signaling devices shall produce a sound that exceeds the ambient sound level in the room or space by 15 decibels

minimum, or exceeds any maximum sound level with a duration of 30 seconds minimum by 5 decibels minimum, whichever is louder. Sound levels for fire alarm signals shall be 120 decibels maximum, 60 decibels minimum.

Audible notification appliances located on paths of egress shall be provided such that the device will not be within the ear damage exposure range provided in the manufactures literature.

Where total evacuation of the occupancy is required all audible alarm appliances shall use the national standard fire alarm evacuation signal, or Three Pulse Temporal pattern. For emergency voice alarm communication systems audibility requirements are applicable to alert tones and post message evacuation signals. Voice message intelligibility will be approved at acceptance of the system.

Smoke Detectors

Where smoke detectors are provided or required they shall be installed within their approved spacing. Open area protection shall have detectors placed within 1/2 of their approved spacing from sidewalls, with the remainder of coverage to have detectors placed so that no point within the area of protection exceeds 0.7X (0.7 multiplied by) the approved spacing from any detector. Corridor spacing shall have detectors installed within 1/2 of their approved spacing from terminating points of the corridor, with the remainder of coverage to have detectors placed so that no point within the corridor exceeds 0.7 X the approved spacing from any detector. Smoke detectors have no listed spacing. Standards approve a 30 foot spacing between detectors. When high ceilings require smoke detection or, unique architectural features inhibit smoke plume and travel dynamics from the normal, an engineering analysis may be required for the placement of smoke detectors.