

Evacuation Systems Terminology and Definitions

Notification Systems:

A Notification System is an automatic system whose function is to warn the people in a building that there is an imminent danger from fire.

This notification may be accomplished in one of two ways, through audible signaling devices (horns and speakers) or through visual signaling devices (strobes).

The response of people to these devices is varied and is affected by several factors:

The signal must be distinctive and must be understood to mean "Leave the Building"

Excessive alarms cause people to become complacent, and not to evacuate on alarm.

Voice Evacuation Systems:

Notification systems that utilize speakers and amplifiers are generally called voice evacuation systems. These voice evacuation systems are most commonly installed in two types of building occupancies:

Place of Assembly: Where more than 50 people congregate, but may be unfamiliar with exit locations, or fire emergency signals, voice systems can instruct people to remain calm, and to evacuate the building

High Rise: When it is impractical to evacuate a building in its entirety, zoned evacuation of the occupants is used to conduct an instructed evacuation of floors or areas within the building.

Ambient Noise and Layout:

Speaker layout should be different in high noise and low noise areas.

In quiet areas, speakers should be set to reach ambient +15 dB in all areas. Speakers should be set not to exceed 90dB in order that they do not startle people in close proximity.

In high ambient sound conditions, speakers should be tapped to produce 15 to 20 dB above the ambient, and should be placed closer to one another to insure penetration. If too few speakers are used in a high ambient setting, there is a risk that the message will be unintelligible.

Watt (a measurement of power) :

The term watt is used to refer to the total audio power of the installed system and the power setting of the individual speakers. A System with 25W of audio power can drive a speaker load of 25W.

This can be comprised of 25 speakers, each tapped at 1W, 50 speakers each tapped at 1/2W, or any mathematical combination which is less than or equal to 25W.