

WELCOME CFPI

California Fire Alarm Association
NFPA 72 Presentation

Buellton California

March 18, 2009

2002 to 2007 NFPA 72

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- *NFPA 72*: **"A system that is used to provide information and instructions to people, in a building, area, or other place."**
This broad definition can include systems used to initiate evacuation, relocation or to provide information to occupants for fire emergencies; weather emergencies; terrorist events; biological, chemical, or nuclear emergencies.

2002 to 2007 NFPA 72

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This broad definition can include systems used to initiate evacuation, relocation or to provide information to occupants for fire emergencies; weather emergencies; terrorist events; biological, chemical, or nuclear emergencies.
- **Annex E**, Mass Notification Systems, is new in the 2007 *NFPA 72* and has been developed to provide non-mandatory guidance for the design and installation of these systems.

2007 NFPA 72

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- 6.8.4.7* In combination systems, fire alarm signals shall be distinctive, clearly recognizable, and, with the exception of mass notification inputs, take precedence over any other signal even when a non-fire alarm signal is initiated first and shall be indicated as follows in descending order of priority unless otherwise permitted by this Code:

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- (1) Signals associated w/ life safety
- (2) Signals associated Security Systems
- (3) Trouble signals and then
- (4) All other signals

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- The prescriptive requirements for location and spacing of smoke detectors in level Joist and Beam ceiling applications have been completely revised and now specifically address "waffle or pan-type" ceilings, corridors and small rooms.

2007 NFPA 72

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(2) For ceilings with beam depths equal to or greater than 10 percent of the ceiling height **and** beam spacing equal to or greater than 40 percent of the ceiling height, spot-type detectors shall be located on the ceiling in each beam pocket.

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(3)* For waffle or pan-type ceilings with beams or solid joists no greater than 24 in. deep and no greater than 12 ft. center-to-center spacing, the following shall be permitted:

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Easy way to remember this is the **$\geq 10\%$ & $\geq 40\%$ Rule**

i.e.: if the beam is $< 10\%$ of the height = smooth spacing

but if the beam is $\geq 10\%$ and beam spacing is $\geq 40\%$ of the ceiling height, that's when we need a detector in each pocket!

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-The Code now includes requirements to address selection, location and spacing of these detectors depending on the function they perform as well as testing the individual sensors.

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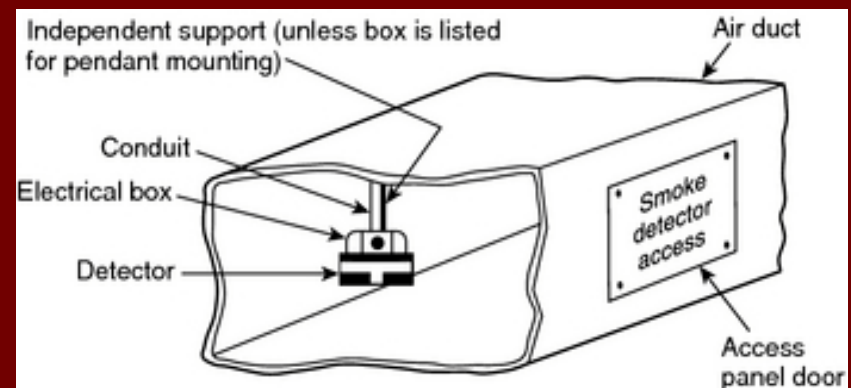
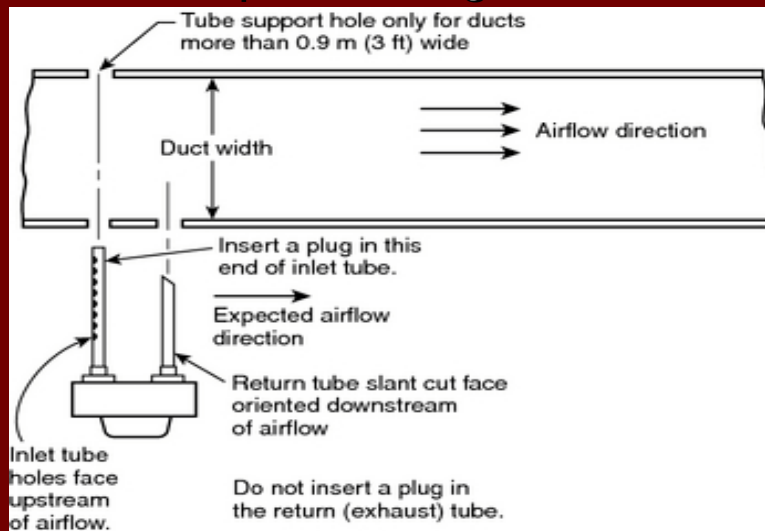
Updated guidance for the installation and **location of duct detectors** has been included based on work sponsored by the Fire Detection Institute. The revised guidance no longer recommends detectors be located at 6 and 10 duct-equivalent diameters of a straight uninterrupted run, and the guidance on obtaining a representative has been brought up to date.

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New requirements have been added to address the use of **exit-marking audible notification appliances**.

-These are audible notification appliances that mark building exits and areas of refuge by the sense of hearing for the purpose of evacuation or relocation.

-These appliances are not intended to replace appliances used for traditional occupant notification.

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-These devices monitor the fire extinguisher in accordance with the requirements of *NFPA 10, Standard for Portable Fire Extinguishers* 5.14 and 6.8.4.11*

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-Two-way in-building radio communications enhancement systems (bidirectional antenna systems) are often needed so that these radio systems will operate reliably throughout the building.

-New requirements have been added to permit the fire alarm system to monitor these enhancement systems. 6.10.2*.

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- **Visible signaling** in large ("**big box**") warehouse and distribution spaces is often a challenge for fire alarm system designers.
 - New guidance based on research conducted under the auspices of the Fire Protection Research Foundation has been provided to help designers with this difficult application. 7.5.4.5.1

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- Although not prompted by new technology or research, a handful of other significant changes have been made that will impact the design of fire alarm systems:

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- Although not prompted by new technology or research, a handful of other significant changes have been made that will impact the design of fire alarm systems:
- Total sound pressure maximum has gone down to 110db from the 2002 max of 120db (was amended in 2002 Calif. to 110db)

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Exceptions:

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- #2: Fully sprinklered buildings shall not require protection in accordance with 4.4.5*

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- Revisions have been made to clarify or update requirements for: Annunciation; Alarm and Supervisory signal initiation; Emergency voice alarm communications systems; Two-way telephone communications systems, including a new requirement for circuit survivability; visible appliance location and especially **Elevator Recall** ! see 6.16.3.8 through 6.16.3.12.3

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The 2007 Code is enforceable on August 1st 2009 in California

Credits:

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The End