



CHINO VALLEY INDEPENDENT FIRE DISTRICT FIRE PROTECTION STANDARD

SMOKE DETECTORS

STANDARD # 148

REVISED 11/5/07

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PURPOSE: The purpose of this standard is to provide a guideline for the code enforcement and installation of residential smoke detectors.

SCOPE: All one and two-family dwellings, multi-family dwellings and factory-built housing existing or proposed within the Fire District.

AUTHORITY:

California Health and Safety Code sections 13113.7, 13113.8 and 13114.

Chino Valley Fire District Ordinance No. 93-1.

REQUIREMENTS:

Existing Dwellings

1. Smoke detectors shall be installed and operational in all dwellings intended for human occupancy.
2. Smoke detectors are to be approved and listed by the State Fire Marshal and shall be installed in accordance with the manufacturer's instructions.
3. Smoke detectors shall be installed at a point centrally located in the corridor or area giving access to each separate sleeping area. Smoke detectors shall sound an alarm audible in all sleeping areas of the home with all intervening doors closed. When the dwelling unit has more than one story and in dwellings with basements, a detector shall be installed on each story and in the basement. In dwellings units where a story or basement is split into two or more levels, the smoke detector shall be installed on the upper level, except that when the lower level contains a sleeping area, a detector shall be installed on each level. When sleeping rooms are on an upper level, the detector shall be placed at the ceiling of the upper level in close proximity to the stairway.
4. The owner shall be responsible for testing and maintaining smoke detectors.
5. Smoke detector shall be operational at the time that a tenant takes possession. A tenant shall be responsible for notifying the owner if the tenant becomes aware of an inoperable smoke detector. This shall be corrected no later than twenty-four (24) hours after the notification of the problem.

6. During a fire inspection the owner or responsible party may initial and complete the title section on the Fire District inspection form certifying that all required smoke detectors are installed and operational.
7. A Notice of Violation or citation shall be issued for code violations. Existing one and two-family dwellings and factory-built homes should receive passive enforcement (enforcement upon the Fire District becoming aware of the deficiency and not through an inspection program).
8. Any owner of a single family dwelling or factory-built home shall provide a compliance statement as to smoke detectors upon sale or transfer of property.

New Dwellings


1. All newly constructed dwellings shall be provided with smoke detectors and comply with the 2007 California Building Code section 907.2.10 and as referenced in NFPA 72, Chapter 11.
2. Smoke detectors are to be approved and listed by the State Fire Marshal and shall be installed in accordance with the manufacturer's instructions.

Recommendations


The Fire District and International Association of Fire Chiefs recommend the following information about the use of smoke detectors:

1. There are two main types of technologies used in smoke alarms to detect smoke. Both technologies detect all types of growing fires. Ionization alarms, which sell for about \$5 for battery-operated models, respond faster to flaming fires, such as those involving paper or flammable liquids. Photoelectric alarms, which sell for about \$20, respond faster to smoldering fires, such as those ignited by cigarettes in upholstered furniture, bedding materials, and mattresses. Dual sensor smoke alarms use both ionization and photoelectric sensors and cost about \$30.
2. Smoke alarms that use either type of sensing technology have been proven to save lives, prevent injuries, and minimize property damage by detecting and alerting residents to fires early in their development, and that the risk of dying from fires in a home without smoke alarms is twice as high as in homes that have working smoke alarms.
3. Since it cannot be predicted what type of fire will start in a home, it is important that both smoldering and flaming fires are detected as quickly as possible. The best protection is to have both types of smoke alarms installed, or install dual sensing technology smoke alarms that incorporate both ionization/photoelectric sensors.
4. Working smoke alarms should be installed on every level of the home, outside sleeping areas and inside bedrooms, as per manufacturer's specifications. Furthermore, smoke alarms can only offer protection if they are working, and as such, they should be tested, and maintained in accordance with the manufacturer's specifications.

5. If smoke alarms are battery operated or have battery back-up, the batteries should be replaced at least once a year during the "Change your clock, change your battery" program in October. In addition, experts say that the entire smoke alarm itself should be replaced every 10 years.
6. Batteries should never be removed to disable a smoke alarm, even if you experience "nuisance" alarms, such as while cooking or showering. Simply fan the detector with a newspaper or towel to stop the alarm. Clean the smoke alarm according to the manufacturer's instructions, and consider relocating it away from the kitchen or bathroom. Some smoke alarms have a silencing or "hush" feature, so nuisance alarms can be stopped quickly and easily. Other smoke alarms use a long-life sealed battery unit so the battery cannot be removed.
7. Studies have shown that some children may not awaken from the sound of a smoke alarm for a variety of reasons. Parents and care providers should conduct a fire drill when their children are sleeping so they can assess their children's ability to awaken and respond appropriately. If children, or any other family members, do not awaken or do not react appropriately to the smoke alarm, the home escape plan should be modified accordingly to ensure that all family members are able to get out safely. The IAFC is aware of certain types of alarms that project a recording of the parents' voice or some other sound to which children may be more responsive than the traditional alarm.
8. For elderly people, those who have impaired hearing or those who have other disabilities that make the alarm difficult to hear, there are smoke alarms that use strobe lights and vibrators in addition to sound. Exploring alternative approaches such as these may make sense in those households.
9. Consider the installation of a residential fire sprinkler system. Fire protection involves a complex, multi-faceted approach that does not rely upon any one measure for safety.
10. The National Fire Protection Association (NFPA) reports that the provision of both smoke alarms and residential fire sprinklers increases survivability of a fire in a home by 82% over having neither.
11. Develop and regularly rehearse an escape plan with all members of your household, so that when the smoke alarm sounds, everyone will move to a safe location outside the home. For information on how to develop a home escape plan, see: <http://www.nfpa.org/assets/files/PDF/FPWgrid03.pdf>.


 Tom Maxham, Deputy Chief/Fire Marshal

11-5-07
 Date


 Paul L. Benson, Fire Chief

11/5/07
 Date