



Chanhasen Fire Department

FIRE PREVENTION BUREAU

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CHANHASSEN FIRE DEPARTMENT POLICY #53

FIRE ALARM REQUIREMENTS

APARTMENT OCCUPANCIES

Purpose:

Upgrade existing Fire Alarm Systems to current fire code to greatly improve fire detection and alerting the occupants of fire in existing apartment buildings, both rental and condominiums.

Scope:

All existing R-2 occupancies shall meet the requirements of the 2015 Minnesota State Fire code (MSFC), Section 907 and 2010 NFPA 72, The National Fire Alarm and Signaling Code. When buildings are equipped throughout with an automatic fire sprinkler system, smoke and heat detectors are not required.

1. Apartment Occupancies Defined:

- a. Guest room or dwelling unit 2 or more stories above level of exit discharge,
- b. Guest room or dwelling unit below level of exit discharge (i.e. basement),
- c. More than 16 guest room or dwelling units
- d. Building has an occupant load of 20 or more (4,000 sq. ft.).

Some exceptions allowed for guest room or dwelling units without interior corridors or where each unit has exit direct to the exterior.

2. Initiation: automatic detection of fire in;

- a. Laundry rooms,
- b. Boiler & furnace rooms,
- c. Mechanical & electrical rooms,
- d. Shops,
- e. Locker rooms,
- f. Trash-collection rooms,
- g. Storage rooms,
- h. Gift shops,
- i. Similar areas,
- j. Automatic smoke detection in common areas and interior corridors.

3. Notification: general evacuation signal.

- a. Horn-Strobes placed throughout the common areas and corridors,
- b. Audible notification appliances for sound level requirements in sleeping areas.

4. Installation Requirements:

- a. 2015 Minnesota State Fire Code
- b. 2010 National Fire Alarm Code NFPA 72
- c. Chanhassen Fire Prevention Bureau Fire Protection Permit
- d. State Board of Electricity Permit
- e. Licensed Low Voltage Electrical Contractor
- f. Licensed Electrical Contractor
- g. Service Contract for Fire Alarm System (annual inspection, testing & maintenance)
- h. Central Station Monitoring

5. Additional commentary:

- a. A survey of the existing fire alarm system is required to determine the needs of the building.
- b. Some testing of sound levels may be required to meet the requirements of the fire alarm code for decibel level at the pillow of sleeping rooms. Reference Section 4-3.4 Sleeping Areas of NFPA 72.
- c. Wiring needs to be inspected to determine if it meets the current fire alarm code. Reference Section 3-4 System Performance and Integrity of NFPA 72.
- d. Heat detectors located in the residential units shall be removed from the fire alarm system. The detectors can be removed and the existing wires capped and a cover plate installed.
- e. The type of fire alarm system to be installed should be a fully addressable system to allow firefighters to quickly locate the possible source of the fire.

6. Low Frequency Sounding Devices:

NFPA 72, Section 18.4.5.3 contains new language requiring low frequency sounding devices in Rooms used for sleeping that took effect on January 1, 2014. The alarm signal in the sleeping area must produce a square wave signal that meets a frequency of 520 Hz \pm 10 percent (NFPA 72 section 18.4.5.3). This language will apply to new hotel/motels, apartments and assisted living facilities. It is not intended to apply to hospitals, nursing homes or child care centers where staff is available to assist with evacuation.

7. Automatic Fire Sprinklers:

- a. To use the exception for smoke detectors a building survey for fire sprinklers is required.
- b. A licensed fire sprinkler contractor shall inspect the entire building for compliance with NFPA 13 or 13R.
- c. A letter is required from the fire sprinkler contractor stating that the building is 100% sprinkled per NFPA 13 or 13R. NFPA 13R has limited application and the contractor will determine which type of system was installed per building code requirements.

8. Fire alarm Installation Requirements: The installation requirements for fire alarm contractors is available from the Chanhassen Fire Prevention Bureau.

Revisions 1/4/2006
 5/2/2008
 2/15/2010
 4/17/17