



Building Code Clarifications - 9. Fire Detection Systems

9.1 (15-16-1280) Visual and audible fire alarm devices

Installation Height Policy: Section (15-16-1280) requires that the audible fire alarm be installed at 96" from the finished floor. MOPD requires that the Visual fire alarm be installed at a height of 80" or 6" from the ceiling per Illinois Accessibility Code, Appendix D Bulletin # 2 – Visual Alarms, Mounting: Provisions contained require mounting.

Per agreement with DCAP, Fire, and MOPD, the Visual Alarm (strobe) can also be installed at 96" above the finished floor, thus enabling the installation of a single combination visual and audible device. In areas where the ceiling height does not allow for 96" mounting height, the combination device shall be mounted 6" below the ceiling plane. As a result of this agreement there will no longer be a requirement to install and wire two separate devices and electrical back boxes at each location.

9.2 (18-27-760) Remote power supply control unit -- Fire alarm system

Remote power supplies or the power boosters can be utilized to expand the power capability of a fire alarm control panel for notification appliance circuits (NAC). The NAC remote power supply units shall be UL listed and shall meet all the installation requirements of NFPA-72 and Article 760 of the Chicago Municipal Code.

The NAC power supply shall be monitored and activated from the addressable fire alarm loop, and shall not be activated from the notification appliance output of the fire alarm panel. They shall also comply with the following requirements:

1. The NAC power supply control unit shall be connected and controlled on a class "A" addressable fire alarm system loop.
2. The NAC power supply control unit shall contain self-diagnosing circuitry to alert the fire control panel when a fault or trouble condition occurs.
3. The power control unit's output circuits can be class "B" with an end of line resistor or Class "A" loop out and back to the unit.

This new policy of NAC power supply acceptance shall apply to the existing as well as new fire alarm systems. The fire alarm systems can now be expanded without excessive cost to the building owners.

9.3 (15-16-350)**Buildings equipped with automatic sprinkler system**

In order for any existing or new building to be considered fully protected by an automatic sprinkler system, all rooms or areas of the building must have sprinklers. However, Section (15-16-350) allows the omission of sprinklers in certain rooms or areas of a building where the application of water to the contents in the room or area may cause hazard. The following is a list of these locations:

1. Rooms or vaults dedicated for electrical transformers, CECO vaults.
2. Dedicated main building switchboard rooms.
3. Generator rooms, supplying electrical power to the building.
4. Dedicated electrical closets or rooms where voltage exceeds 600 volts.
5. Elevator machine rooms.
6. Elevator shafts. (Sprinklers are required at bottom of the elevator pit for all newly installed sprinkler systems.)
7. Freezers under 200 sq ft in area.
8. Rooms containing chemicals that may cause serious life or fire hazard upon the application of water.

When a building is protected by a required standard or high rise fire alarm system, the above elevator machine and electrical rooms or areas shall be protected by an appropriate detection.

Note that the electrical code section (18-27-110.26)(f)(1)(c) requires higher temperature sprinkler heads in electrical closets and distribution rooms that are required to have sprinklers. Those rooms are not included on the above list.