

## Elevator Shunt Trip – Fire Alarm Requirements

Here are the requirements for heat detector placement, monitoring of power and wiring diagram from 1999 NFPA 72:

3-9.4.1\* Where heat detectors are used to shut down elevator power prior to sprinkler operation, the detector shall have both a lower temperature rating and a higher sensitivity as compared to the sprinkler.

3-9.4.2 If heat detectors are used to shut down elevator power prior to sprinkler operation, they shall be placed within 610 mm **(2 ft) of each sprinkler head** and be installed in accordance with the requirements of Chapter 2. Alternatively, engineering methods, such as specified in Annex B, shall be permitted to be used to select and place heat detectors to ensure response prior to any sprinkler head operation under a variety of fire growth rate scenarios.

3-9.4.3\* If pressure or waterflow switches are used to shut down elevator power immediately upon or prior to the discharge of water from sprinklers, the use of devices with time-delay switches or time-delay capability shall not be permitted.

3-9.4.4\* Control circuits to shut down elevator power shall be monitored for presence of operating voltage. **Loss of voltage to the control circuit for the disconnecting means shall cause a supervisory signal to be indicated at the control unit and required remote annunciators.**

Figure A-3-9.4.4 Typical method of providing elevator power shunt trip supervisory signal.

