



**Lake Havasu City Fire Department  
Fire Prevention Bureau**

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**FD Specification #17  
Requirements for Fire Sprinkler Monitoring**

**2018 IFC, Ch. 9**

**Rev. 9/01/2021  
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**PURPOSE**

To provide monitoring and alerting requirements for buildings equipped with automatic fire sprinkler systems.

**SCOPE**

This fire department specification identifies requirements for monitoring valves controlling water supplies for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and water-flow switches on all affected sprinkler systems.

**REQUIREMENTS**

1. All valves controlling water supplies for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures and water-flow switches on all sprinkler systems must be electrically supervised by a *listed* fire alarm control unit.

**Exceptions:**

- a. One- and two-family dwellings
  - b. Limited area sprinkler systems not exceeding 6 sprinklers in any single fire area (effective 09/01/2021)
  - c. Limited area systems serving fewer than 20 sprinklers (Between 06/23/2008 and 09/01/2021)
  - d. Limited area systems serving fewer than 100 sprinklers (Prior to 06/23/2008)
  - e. Other specified conditions excepted by **IFC Ch. 9, §903.4 *Sprinkler System Supervision and Alarms***
2. Where sprinkler system monitoring is required, alarm, supervisory and trouble signals must be distinctly different and be automatically transmitted to an approved supervising station or, when approved by the Fire Marshal (FM), must sound an audible signal at a constantly attended location.

**Exceptions:**

- a. Underground key or hub valves in roadway boxes provided by the municipality or public utility are not required to be monitored.
- b. Backflow prevention device test valves located in limited area sprinkler system supply piping must be locked in the open position. In occupancies required to be equipped with a fire alarm system, the backflow preventer valves must be electrically supervised by a tamper switch installed in accordance with NFPA 72 and separately annunciated.

**Note:** All new buildings, excluding one- and two-family dwellings, equipped with automatic fire sprinkler systems exceeding 6 sprinklers in any single fire area, require

signals to be automatically transmitted to an approved supervising station. In existing buildings, where monitoring was required at the time of construction, systems must continue to be monitored by automatically transmitting a signal to an approved supervising station.

3. Where alarms are required, an approved audible device, located on the exterior of the building in an approved location, must be connected to each automatic sprinkler system. Such sprinkler water-flow alarm devices must be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a fire alarm system is installed, actuation of the automatic sprinkler system must actuate the building fire alarm system.
4. Provisions must be made to indicate the flow of water in a sprinkler system by an alarm signal within 90-seconds after flow of water at the alarm-initiating device equal to or greater than that from a single sprinkler of the smallest orifice size installed in the system. Movement of water due to surges or variable pressure must not be indicated.
5. When more than one riser exists in a building, or on a project, the risers must be identified as separate zones or discrete points to indicate each riser separately. A weatherproof audible and visible notification appliance (horn/strobe) must be installed outside the building or buildings for each riser. An additional audible and visible notification appliance must also be installed inside the building at a normally occupied location in each suite or unit if applicable.
6. All monitored systems must include one manual pull station having the ability to transmit an alarm if the fire sprinkler system is down for service. It must be located near the control panel or at an approved supervised location.
7. Communication methods for off-premises fire sprinkler monitoring may employ a full range of transmission technologies available to supervising station services.
8. Conductors and connections, which interconnect equipment, devices, and appliances, must be monitored for integrity as set forth in NFPA 72.
9. All equipment installed in this system including the interconnections must be listed for its purpose, and compatible for use with each other. (Fire listing required.)
10. Systems are subject to initial acceptance testing by the FM.

**REFERENCES**

2018 International Fire Code, Ch. 9, §903.4 *Sprinkler System Supervision and Alarms*  
NFPA 72: *National Fire Alarm and Signaling Code*

**Note:** This FD specification is intended to be a guide only. For full installation, fire-flow, location, distribution, and maintenance requirements, refer to the references above. Where conflicts exist between this document and the applicable codes and standards, the above references must supersede.

APPROVED:  DATE: September 01, 2021  
Scott Hartman, Fire Marshal