Explanatory Policy – Fire Alarm Monitoring

SUBJECT: Fire Alarm Monitoring
EFFECTIVE DATE: July 19, 2019

REFERENCES:
Sections 903.4.1, 907.1.1, 907.1.2 & 907.5.2.1
REVIEW DATE: July 2022

APPROVED:
John Mertens, Fire Marshal

Code: 903.4.1 Monitoring. Alarm, supervisory and trouble signals shall be distinctly different and shall be automatically transmitted to an approved supervising station or, where approved by the fire code official, shall sound an audible signal at a constantly attended location.

Exceptions:
1. Underground key or hub valves in roadway boxes provided by the municipality or public utility are not required to be monitored.

2. Backflow prevention device test valves located in limited area sprinkler system supply piping shall be locked in the open position.

3. In building occupancies in Group A-2 that do not exceed 5,000 square feet (465 m²).

4. Group H and E shall be monitored at 0 square feet.

5. All other building occupancies, that do not exceed 12,000 square feet (1115 m²)

903.4.3.5 Monitoring. Where a building fire alarm system is installed, automatic fire extinguishing systems shall be monitored by the building fire alarm system in accordance with NFPA 72.

903.4.4 Monitoring at a constantly attended location. When monitoring of sprinkler system is required per section 903.4.1 the facilities owner may request to monitor the system(s) at the facility site using facility personnel. Where the alarm monitoring station does not strictly comply with the NFPA 72 requirements for a proprietary supervising station, the following minimum provisions shall be met and approved by the fire code official.

1. The policies and procedures for monitoring the sprinkler system shall be written and submitted to the fire code official for approval prior to occupancy or terminating central station service or remote service. A copy of the approved fire alarm policies and procedures shall be maintained at the constantly attended location.
2. The alarm monitoring station shall be constantly attended by competent trained personnel. At least one person shall monitor the fire alarm panel at all times. Provisions shall be made to relieve the alarm monitor prior to shift changes, during breaks, or performance of other assigned duties outside of the alarm monitoring room.

3. A list of trained personnel qualified to monitor the sprinkler system shall be maintained at the alarm monitoring station. Documentation of the alarm monitoring training shall be approved by the fire code official and maintained at the alarm monitoring station and made available to the fire code official on request.

4. The policies and procedures shall address the dispensation of the various fire alarm signals. The fire department shall be immediately notified upon the activation of a fire alarm signal (smoke or heat detector, sprinkler water flow, manual pull station, special extinguishing system, etc.). Any investigation by the facility staff shall occur after or concurrent to notification of the fire department. If the investigation by facility staff determines that there is no emergency condition at the facility, the fire department shall be immediately notified to allow them to modify their response.

5. The fire department shall not be summoned for emergency response upon receipt of a supervisory or trouble signal, but procedures shall address dispensation of those signals by facility personnel.

6. A log shall be maintained at the monitoring station that note all of the signals received and the dispensation of those signals. The log sheet shall be made available to the Phoenix Fire Department on request.

903.4.4.1 Location. In buildings greater than one story or 22,500 square feet, the fire alarm panel or a fire alarm annunciator panel shall be installed in a location that is visible from the lobby or area adjacent to the primary fire department response entrance. It shall be permissible to locate the fire alarm panel in a room immediately adjacent to this lobby provided the door to this room is accessible to the fire department, visible from the lobby and is provided with a permanent, visible placard noting the location of the fire alarm control panel.

Kitchen hood systems. When kitchen hood systems are installed in buildings equipped with a fire alarm system designed to notify the building occupants, actuation of the hood system shall initiate the fire alarm system.

907.1.1 Design documents. For fire alarm and other code regulated alarm systems, the following are considered to be professional registrant activities in accordance with the requirements of the Arizona Board of Technical Registration:

1. Determine the system type;
2. Determine the applicable codes and standards and appropriate engineering practices;
3. Determine device types and locations;
4. Prepare generalized riser diagram;
5. Coordinate and interface with other systems;
6. Develop system specifications

Exception: Where the modification of fire protection systems does not require mathematical calculations or hazard analysis.
These activities need to be completed prior to the development of construction documents to be submitted for permit.

907.1.2 Fire alarm shop drawings. Shop drawings for fire alarm systems shall be submitted for review and approval prior to system installation, and shall include, but not be limited to, all of the following:

1. A floor plan that indicates the use of all rooms.
2. Locations of alarm-initiating devices.
3. Locations of alarm notification appliances, including candela ratings for visible alarm notification appliances.
4. Location of fire alarm control unit, transponders and notification power supplies.
5. Annunciators.
6. Power connection.
7. Battery calculations.
8. Conductor type and sizes.
9. Voltage drop calculations.
   
   Fine Print Note: The two predominant methods of voltage drop calculation are point to point and end of line lump sum. Center loading of the circuits is also an acceptable method.
10. Manufacturers’ data sheets indicating model numbers and listing information for equipment, devices and materials.
11. Details of ceiling height and construction.
12. The interface of fire safety control functions.
13. Classification of the supervising station.