

<p>July 1, 2010</p>	<p>SANTA ROSA FIRE DEPARTMENT FIRE PREVENTION BUREAU STANDARD</p>
	<p>SPRINKLER SYSTEM SUPERVISION</p>

Purpose

All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures, and water-flow switches on all sprinkler systems, shall be electrically supervised. This standard outlines general requirements. Information contained herein applies to typical instances and may not address all circumstances.

Scope

Fire extinguishing system alarms installed to notify occupants within the interior of the building that automatic fire sprinkler system activation has occurred shall be designed in accordance with the 2007 Edition of National Fire Protection Association Standard No. 72 (National Fire Alarm Code), except as noted within this standard.

Automatic fire sprinkler systems and fire alarm systems shall be electronically supervised and monitored by an approved central station, proprietary supervising station, or remote supervising station.

Supervision/monitoring system layout or shop drawings may be submitted deferred with the automatic sprinkler system shop/layout documents, or the fire alarm system shop/layout documents, or separately as a future revision of the building construction permit.

If separately deferred, include “Fire Protection Supervision/Monitoring System” in the Deferred Submittal List. Fire protection system supervision/monitoring shall be in service prior to acceptance testing and inspection of the system.

Code References

2007 California Fire Code (CFC) Chapter 9 Section 903.4
(SRCC) 18-44.903.4
2007 NFPA 72

Permit(s) Required

A Fire Sprinkler Supervision permit is required. Categories and fee amounts are found on line at www.santarosafd.com

Supplemental Information:

- 1) Plan Review Checklist - Fire Sprinkler Installation NFPA 13
- 2) Inspection Checklist – Fire Sprinkler Installation NFPA 13

Required Inspections

- 1) Rough Fire Alarm installation inspection
- 2) Final Fire Alarm installation inspection

SRCC 18-44 903.4.1 Signals. Alarm, supervisory and trouble signals shall be distinctly different and shall be automatically transmitted to an approved central station, remote supervising station or proprietary supervising station as defined in NFPA 72 or, when 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 provide 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. In occupancies required to be equipped with a fire alarm system, the backflow preventer valves shall be electrically supervised by a tamper switch installed in accordance with NFPA 72 and separately annunciated.

NFPA 72 5.15 Supervisory Signal-Initiating Devices

5.15.1 Control Valve Supervisory Signal-Initiating Device

5.15.1.1 Two separate and distinct signals shall be initiated: one indicating movement of the valve from its normal position (off-normal) and the other indicating restoration of the valve to its normal position.

5.15.1.2 The off-normal signal shall be initiated during the first two revolutions of the hand wheel or during one-fifth of the travel distance of the valve control apparatus from its normal position.

5.15.1.3 The off-normal signal shall not be restored at any valve position except normal.

5.15.1.4 An initiating device for supervising the position of a control valve shall not interfere with the operation of the valve, obstruct the view of its indicator, or prevent access for valve maintenance.

NFPA 72 6.8.5.5 Alarm Signal Initiation-Sprinkler Systems.

6.8.5.5.1 Where required to be electronically monitored, waterflow alarm-initiating devices shall be connected to a dedicated function fire alarm control unit designated as "sprinkler waterflow and supervisory system," and permanently identified on the control unit and record drawings.

Exception: Where waterflow alarm-initiating devices are connected to a building fire alarm system, a dedicated function fire alarm control unit shall not be required.

NFPA 72 6.8.5.6 Supervisory Signal Initiation-Sprinkler Systems

6.8.5.6.1 Where required to be electronically monitored, supervisory signal-initiating devices shall be connected to a dedicated function fire alarm control unit designated as “sprinkler waterflow and supervisory system,” and permanently identified on the control unit and record drawings.

SRCC 18-44 903.4.2 Alarms. One exterior approved audible device shall be connected to every automatic sprinkler system in an approved location. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a building fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system. Visible alarm notification appliances shall not be required except when required by section 907.

NFPA 72 5.11.2 Activation of the initiating device shall occur within **90 seconds** of waterflow at the alarm initiating device when the flow occurs that is equal to or greater than that from a single sprinkler of the smallest orifice installed in the system.

SRCC 18-44 903.4.3 Floor control valves. Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor in high-rise buildings *and Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access.*

Central Station Monitoring

NFPA 72 8.3.5 All fire sprinkler systems shall be electronically supervised by an approved central station UL, UUFX certified alarm service provider.

When a central station company is monitoring more than one (1) zone or building with a single retransmitter, the central station company shall identify the particular zone or building or both that is in alarm. Fire alarm panels installed at the premises shall be capable of differentiating between signals, including water flow, manual and automatic activating components and transmitting distinctive fire alarm, supervisory and trouble signals.

Inspections shall be scheduled a minimum of 48 hours in advance. Directions for scheduling are found at: <http://ci.santa-rosa.ca.us/news/Pages/AutomatedFireInspectionRequestSystem.aspx>