



Insurance

Risk Management, Portland, OR

Property Protection Program (3P) 06/25/2015

VALVE INSPECTION SYSTEM

The valve inspection system provides a means to verify and document that valves are in the correct position to allow sprinkler systems to function as designed. All fire protection system control valves are to be locked in the open position to discourage possible tampering or unauthorized closure. FM Global notes from their loss history that often an entire building is lost as the result of a fire that would have been controlled within a small area if sprinklers had been able to function as designed.

General Information

To be effective against fire, automatic sprinklers need to have sufficient water delivered to them through a piping arrangement, which includes the yard main, lead-in, and sprinkler riser. A valve closed anywhere in this water supply system can prevent the flow of water to the sprinklers. When valves are closed, it is possible for a fire to quickly grow too large for sprinklers to control, even if the valve is reopened once the fire is discovered.

The valve inspection system is an important step in making sure that valves are locked in the open position following scheduled or unscheduled fire alarm or sprinkler system impairment; however, an inspection program verified that valves were opened correctly and provides a check for equipment where there has not been impairment.

Why are Valves Closed?

Valves sometimes are closed permanently because a building is idle or vacant. In this case, portions of the facility are completely unprotected. Valves may also be closed for the following reasons:

- Sprinkler system repair
- Building alterations
- Maintenance
- Cold weather
- Error (not realizing the valve is part of the sprinkler system)
- Maliciousness (including arson intent)

It is a common oversight that valves were supposed to be closed temporarily, but inadvertently remained closed for weeks, months, or even years.

Work Instructions

Regular inspections are key to control incorrectly closed valves. All fire protection valves must be located and identified. An inspection form that lists all valves and includes space to record the information should be available. Personnel conducting valve inspections should be sufficiently trained.

Weekly Fire Pump Test Sample Form

Test all fire pumps weekly. Enter correct settings in shaded column. Make sure all test results are within normal limits. If you find that repairs are needed, make them immediately and follow manufacturer's instructions.

Pump manufacturer	Year installed
Manufacturer's model no.	gpm/psi rating gpm <input type="checkbox"/> psi <input type="checkbox"/> rpm <input type="checkbox"/>

FM Global Office:

Phone No. _____	Pump on _____ psi/bar/kPa	Pump off _____ psi/bar/kPa
Fax No. _____	Jockey pump on _____ psi/bar/kPa	Jockey pump off _____ psi/bar/kPa

Date tested							
By whom							
Pressure at pump startup method of start							
Motor running time (min)							
Suction pressure							
Discharge pressure							
Temp and tightness of stuffing box glands							
Level of water supplies suction tanks should be overflowed							
Temperature of water							
Pump room temperature							
Engine instrument readings RPM							
Oil pressure							
Temperature							
Last oil change _____ Next oil change _____							
Amps							
Fuel tank level should be at least three-fourths full							
Condition of crank case oil							
Condition of battery charger last time battery charged _____ Battery Electrolyte Level Normal _____							
Cooling system temperature							
Cooling system strainer condition							

Annual pump flow test results satisfactory _____ Yes _____ No

Explain findings:

Provide a work order for immediate repair.

Follow impairment procedures (FM Global Item No. P9006.)

Keep records on file for review by appropriate personnel

Sign off when pump is restored to automatic: _____