

Inspection, Testing and Maintenance of Fire Sprinkler Systems

Date:

Building Address

Important: All inspection and testing items on this form shall be done during the Annual Inspection unless otherwise documented in writing.

Inspections

“√” Yes - Satisfactory “X” - NO Unsatisfactory “NA” - Not applicable (No answers explain in comments)

Daily / weekly if low temperature alarms are installed.

(a) Enclosures - dry-pipe or deluge valves maintaining 40F/4C?

Weekly

Relief port on reduced pressure backflow prevention assemblies are free from discharge?

Weekly items which can be performed monthly if supervised or locked.

Gauges on dry, preaction and deluge systems in good condition?

Normal air and water pressure maintained?

Control valves and isolation valves on backflow prevention devices

(a) in correct (open or closed) position?

(b) Sealed, locked or supervised and accessible?

(c) Relief port on RPZ device not discharging?

Monthly Inspection items.

Supervised gauges on dry, preaction and deluge systems to ensure normal air and water pressure?

Preaction and deluge valves inspected externally ?

Gauges wet pipe in good condition and normal water pressure is being maintained?

Dry pipe valve/quick opening devices shall be inspected externally?

Backflow prevention assemblies shall be inspected? (locked or supervised)

Control valves shall be inspected (locked or supervised)?

Alarm valves shall be inspected externally?

Quarterly inspection items

Alarm devices inspected to verify they are free from physical damage?

Hydraulic name plate to ensure it is attached to sprinkler riser?

Pressure regulating control valves shall be inspected?

Sprinkler pressure regulating & control valves shall be inspected?

Fire department connection?

Annual inspection items.

Buildings- prior to freezing weather?

Hangers and seismic braces inspected from floor level?

Pipe and fittings shall be inspected from floor level?

Sprinklers shall be inspected from floor level?

Spare sprinklers shall be inspected?

Interior of dry pipe valve shall be inspected at time of trip test?

Preaction/deluge valves shall be inspected internally?

Interior of dry-pipe , preaction, deluge valves internal inspection?

Fifth year inspection items.

Alarm valves & strainers, filters and restriction orifices passed internal inspection?

Preaction/deluge valve and their associated strainers, filters and restriction orifices pass internal inspection?

Drypipe valves/quick opening devices internally inspect strainers, filters & orifices?

Check Valves internally inspected and all parts operate properly, move freely and are in good condition?

Interior of preaction,& deluge valves internal inspection?

Testing

Quarterly Tests

Water flow alarms shall be tested?

Main Drain test see 25-12.2.6.1

Low air pressure alarms tested in as per mfgs requirements?

Preaction/deluge valves (supervised) priming water tested?

Inspectors test connection opened? (wet pipe when not freezing)

Bypass connection opened? (wet pipe in freezing dry pipe, preaction and deluge)

Waterflow alarms passed tests?

Dry pipe valves/Quick opening devices (supervised) priming water tested for compliance with manufacturers' instructions?

Quick opening devices passed test?

Semi Annual Tests

Control Valve supervisory switches?

Vane type water flow devices?

Annual Testing

Are all sprinklers in service dated 1920 or later?

Fast Response sprinklers in service for less than 20 yrs

If “NO” test sample now and every 10 years?

Specific gravity of antifreeze correct?

All control valves operated thru full range and returned to normal?

Backflow prevention assemblies pass test accepted by local AHJ?

Backflow devices passed full flow test?

Low temperature alarms in dry pipe, preaction and deluge valve enclosure passed test?

Main Drain test shall be conducted on each system riser?

Record Static pressure _____ psi/kpa?

Residual pressure _____ psi/kpa?

Are results comparable to previous tests?

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Inspection, Testing and Maintenance of Fire Sprinkler Systems

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Annual tests con't

Preaction and deluge valve full flow trip test: (except where water cant be discharged) Test all systems simultaneously

- Water discharge from all nozzles unimpeded?
- Pressure reading at hydraulically most remote nozzle _____ psi/kpa?
- Residual pressure reading at valve _____ psi/kpa?
- Was flow observed?
- Are above readings comparable to design values?
- Manual activation devices passed test?
- Automatic air pressure maintenance devices passed test?

Dry pipe valve partial flow trip test every 3rd year?

- Record initial air pressure _____ psi/kpa?
- Water pressure _____ psi/kpa?
- Record tripping air pressure _____ psi/kpa?
- Record tripping time _____ sec?
- Record water delivery time _____ min _____ sec
- Are the results comparable to previous test?
- Post indicator valves opened until spring or torsion is felt in rod.

- Auto air maintenance devices on drypipe & preaction passed test.
- Backflow devices passed backflow test?
- Pressure reducing valve passed partial flow test?
- All sprinkler pressure regulating control valves passed full flow test?

Dry-pipe full flow trip test to be done every 3rd year.

- Record initial air pressure _____ psi/kpa?
- Record Water pressure _____ psi/kpa?
- Record tripping air pressure _____ psi/kpa?
- Record tripping time _____ sec?
- Was water delivered to inspectors test connection?
- Are above results comparable to previous tests?

Tests to be done every fifth year.

- Sprinklers – extra high temperature tested.
- Gauges checked against calibrated gauge or replaced?
- Pressure reducing valves passed full flow test?
- Sprinklers in service for 50yrs replaced or tested.?
- Sprinklers – fast response in service for 20yrs tested?

Maintenance

Regular Maintenance Items.

- If sprinklers have been replaced, were they proper replacements?
- Air leaks in dry-pipe system resulting in air pressure loss more than 10 psi/week repaired?
- Dry-pipe systems being maintained in dry condition?
- Have low points been emptied?
- If any of the following were discovered, was an obstruction investigation conducted and the system flushed?
- 1. Defective intake screen for pumps taking suction from open sources?
- 2. Obstructive material discharged during waterflow tests?
- 3. Foreign materials found in dry-pipe valves, check valves or pumps?
- 4. Foreign materials found in dry pipe valves, checks valves or pumps
- 5. Plugging of sprinklers found during activation or alteration?
- 6. Failure to flush yard piping or surrounding public mains following new installation or repairs?

- 7. Record of broken mains in the vicinity?
- 8. Abnormally frequent false tripping of dry-pipe valves?
- 9. System is returned to service after an extended period of service?
- 10. There is reason to believe the system contains sodium silicate or highly corrosive fluxes in copper pipe system?

Annual Maintenance Items

- Operating stem of all OS&Y valves lubricate, completely closed. and reopened and lubricated.?
- Interior of dry-pipe, preaction and deluge valves cleaned?
- Low points drained in dry pipe, preaction & deluge systems prior to freezing weather?
- Sprinklers and spray nozzles protecting commercial cooking equipment and ventilating systems replaced except for bulb-type which show no sign of grease buildup?