

Safely



SPEAKING

BY BRUCE BURTON

Automatic sprinkler system inspection and maintenance

MANY equipment dealers rely on automatic sprinkler systems to protect their buildings and livelihoods from fire. Fire protection systems have evolved into state-of-the-art systems and are always on guard and ready to respond to a fire emergency. However, like all mechanical components, they require regular inspection and maintenance to ensure they are able to perform as designed in the event of a fire.

Annual inspections conducted by a qualified sprinkler system service contractor will identify any deficiency or maintenance issues. The purpose of the inspections is to ensure that any deficiencies are found and acted upon immediately. The main sprinkler controls should be tagged and dated by the inspection company.

If you lease a building, the responsibility of maintaining the sprinkler system may be yours. We suggest you check your lease agreement or contact the building owner. If the building owner is responsible, you should obtain a copy of the inspection report.

The building owner must maintain the original records for the life of the system. Subsequent records must be retained for a period of one year after the next inspection, test or maintenance as required by the NFPA 13 and NFPA 25 standard.

A sprinkler system service contractor will inspect and test the following:

- Ensure the system is in satisfactory condition according to the NFPA 13 and NFPA 25 standard
- Identify site conditions or clearance issues that could compromise system performance
- Check sprinkler heads and control valves for position, condition, accessibility, and signage
- Conduct required water flow tests
- Inspect fire department connections
- Test sprinkler alarm components
- Check reserve supply of sprinkler heads

- Inspect visible piping, hangers, drain valves, and gauges
- Test air compressors, pre-action valves, pilot lines, and solenoid strainers
- Test low-pressure alarms, supervisory circuits and auxiliary functions
- Inquire about system modifications, obstructions or changes in storage
- Tag devices and perform required record-keeping
- Provide a detailed inspection report

Some sprinkler system components require inspection and maintenance on a more frequent basis – daily, weekly, monthly, or quarterly. The following is a typical maintenance schedule, however, you should check with your sprinkler system service contractor about the requirements for your system.

Daily (during freezing weather)

- Check dry-pipe valve rooms or enclosures system
- Inspect auxiliary drains to prevent freezing

Weekly

- Check unsupervised control valves
- Check air and water pressure on dry-pipe systems

Monthly

- Test sprinkler alarms on sprinkler systems that do not have electrical supervisory signal service
- Inspect valves that are locked open

Every 2 months

- Test supervisory transmitters and water
- Inspect valves that are electrically supervised

Every 6 months

- Test gate valve supervisory switches and other sprinkler and fire protection system supervisory devices

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Annually

- Check exposed sprinkler system pipe hangers
- Check all sprinkler heads
- Inspect dry-pipe valve priming level
- Inspect fire department connections and test water flow on wet sprinkler systems
- Trip-test dry-pipe trip system (control valve not required to be fully open)
- Test flow of water supply (to be completed by a qualified sprinkler system contractor)

Every 3 years

- Trip test dry-pipe valves with control valve fully open (to be completed by a qualified sprinkler system service contractor)

SOURCE: NFPA 25 – Standard for the Inspection, Testing and Maintenance of Water-based Fire Protection Systems

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