

### Introduction

Automatic sprinkler systems are designed to detect fires, release water, and suppress fires. Well-maintained sprinkler systems are highly reliable and provide protection of both people and property. Cintas Fire Protection uses the National Fire Protection Association (NFPA) Standard 25 – *Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems* as the guideline for establishing its Scope of Service for inspecting, testing and maintaining automatic sprinkler systems.

This document provides an overview of the services Cintas provides while maintaining automatic sprinkler systems. Refer to NFPA 25 and its referenced documents for more detailed information.

### Limitations of Service / Customer Responsibility

- Deficiencies or other impairments noted during inspection or testing of automatic sprinkler system pose an immediate and serious safety concern. The system owner is responsible for assuring that any deficiency noted during inspections or maintenance is corrected immediately.
- In performing maintenance inspections, all conditions noted by Cintas Fire Protection are limited to only those that could be readily observed at the time of inspection, and that inspection is limited to the functional operation of the fire suppression system.
- Cintas makes no warranties or representations regarding the condition or status of other equipment, including but not limited to, electrical equipment, interlocks, HVAC equipment, or alarms.

### Inspection Requirements

The facility owner is required to have the automatic sprinkler system components visually inspected annually, semi-annually, quarterly, or monthly, in accordance with NFPA 25. More frequent inspections may be required by the local authority having jurisdiction.

These inspections are intended to provide reasonable assurance that the system is ready for use and operable, and that no changes have been made that could impair performance.

A facility owner is required to inspect the system and its components visually to have reasonable assurance that the system is ready for use and operable. Elements of the inspection are completed weekly, monthly, and/or quarterly depending on the components being used. The inspection should include the following at a minimum:

- Gauges
- Control valves
- Alarm devices
- Sprinkler heads, including spare supply
- Fire department connections
- Hydraulic nameplate
- Main drain

### Testing / Maintenance Requirements

The facility owner is required to have the automatic sprinkler system components tested annually, semi-annually, quarterly, or monthly, in accordance with NFPA 25. More frequent testing may be required by the local authority having jurisdiction.

### Testing Procedures

Testing procedures vary depending on the manufacturer's requirements, but generally include the following:

#### *Wet Systems (Annually)*

- Provide written inspection report for owners records and report any impairments or additional maintenance required
- Back flow and forward flow test of back flow preventer and complete appropriate State reports
- Check for freezing potential in areas served by wet systems
- Verify proper temperature ratings of sprinkler heads for their location
- Verify that sprinklers are not over 50 years old
- Verify that quick response sprinklers are not more than 20 years old
- Check stock of spare sprinklers
- Check condition of all visible sprinkler heads
- Check coverage and proper spacing on visible sprinkler heads
- Check that proper clearance is maintained between sprinkler head deflector and top of storage
- Test supervisory alarms
- Test water flow alarm

- Check fire department connection for visibility, accessibility, and the condition of caps and threads
- Perform a main drain flow test
- Verify that all valves are in the proper open or closed position
- Verify that open valves are supervised for position with a tamper switch or locked
- Check that all systems are in service
- Examine the exterior condition of the sprinkler system

Additionally, perform all quarterly items listed below.

#### ***Dry Systems (Annually)***

- Complete all items required for Wet Systems annually
- Check that all dry pipe valves are in service
- Check for proper air pressure and priming water level
- Test operation of air supply
- Drain all low point drains
- Test all quick opening devices
- Perform a trip test on the dry pipe valve
- Check that the dry pipe valve room is heated

#### ***Wet and Dry Systems (Quarterly)***

- Verify that the sprinkler system has not changed in any way
- Verify that the building has not been remodeled since the last inspection
- Verify that there have been no fires since the last inspection
- Check for changes in occupancy and storage that would affect the sprinkler systems performance
- Test sprinkler water flow alarms, trouble alarms, and supervisory alarms
- Verify that hydraulic placards are in place
- Perform main drain flow test
- Verify that control valves are in good condition, not leaking, and they are accessible
- Verify that control valves are in their proper position (open / closed) and that it is locked or equipped with a tamper switch
- Inspect the condition of gauges and verify consistent static pressure
- Drain low points for Dry Systems only

#### ***Fire Pump (Annually)***

- Inspect pump house, heating, and ventilation louvers
- Inspect fire pump system
- Test pump operation at churn, rated, and 150% capacity flows
- Provide flow test report

#### ***Backflow Preventer (Annually)***

- Perform a backflow performance test
- Check for leakage
- Verify that check valve closes tightly
- Verify pressure drop across the check valve

#### ***Five Year Maintenance Items***

NFPA 25 requires certain items be maintained every five years. Typical items include replacement of high temperature sprinklers, check valve maintenance, alarm check valve maintenance, flushing private hydrants and underground mains, and gauge calibration or replacement.

## **Recordkeeping Requirements**

Records of inspections, tests, and maintenance of the system and its components must be retained for a period of one year after the next inspection, test, or maintenance. Records should indicate work performed, servicing company, results, and date of service. All records must be made available to the authority having jurisdiction upon request.