

Form for Inspection, Testing and Maintenance of Dry Pipe Fire Sprinkler Systems



Work Order: _____

This form covers the minimum requirements of NFPA 25 - 2011 for dry pipe fire sprinkler systems connected to water supplies without tanks or fire pumps. Separate forms are available for inspection, testing and maintenance of fire pumps, tanks, and other fire protection systems. More frequent inspection, testing and maintenance may be necessary depending on the conditions of the occupancy and the water supply. The work covered on this form is (check one): Weekly Monthly Quarterly Annual Semi-Annual Third Year Fifth Year
Owner: _____ Owner's Phone Number: _____

Owner's Address: _____

Property Being Evaluated: _____

Property Address: _____

Date of Work: _____ All responses refer to the current work (inspection, testing and maintenance) performed on this date.

Notes: 1) All questions are to be answered *Yes*, *No*, or *Not Applicable*. All "No" answers are to be explained in Part III of this form.
2) Inspection, Testing and Maintenance are to be performed with water supplies (including fire pumps) in service, unless the impairment procedures of Chapter 15 of NFPA 25 are followed.

Part I – Owner's Section

- | | | |
|--|-----|----|
| A. Is the building occupied? | Yes | No |
| B. Has the occupancy and hazard of contents remained the same since the last inspection? | Yes | No |
| C. Are all fire protection systems in service? | Yes | No |
| D. Has the system remained in service without modification since the last inspection? | Yes | No |
| E. Was the system free of actuation of devices or alarms since the last inspection? | Yes | No |

The property owner or designated representative shall be responsible for properly maintaining a water-based fire protection system.

The property owner or designated representative shall correct or repair deficiencies or impairments that are found during the inspection, test and maintenance required by this standard (NFPA 25 2011)

See NFPA 25 2011 for all owner requirements.

**Signature on work order if available.*

Owner / Representative Signature and Date

Part II – Inspector's Section

A. Inspections

1. Daily and Weekly Items

- | | | | |
|--|-----|----|-----|
| a. Control valves (including backflow preventer isolation valves) supervised with seals passed inspection in accordance with II.A.2.a below? | Yes | No | N/A |
| b. Dry pipe valve enclosures maintaining a minimum of 40°F? | Yes | No | N/A |
| c. Gauges on systems without low pressure alarms in good condition showing normal water and air pressure? | Yes | No | N/A |
| d. Relief port on RPZ not discharging? | Yes | No | N/A |
| e. For freezer systems, gauge near the compressor reading the same as the gauge near the dry-pipe valve? | Yes | No | N/A |

2. Monthly Inspection Items (in addition to above items)

- | | | | |
|--|-----|----|-----|
| a. Control valves and valves on backflow preventers with locks or electrical supervision: | | | |
| 1. In correct (open or closed) position? | Yes | No | N/A |
| 2. Lock or supervision in place? | Yes | No | N/A |
| 3. Accessible and free from external leaks? | Yes | No | N/A |
| 4. Provided with appropriate wrenches? | Yes | No | N/A |
| 5. Provided with appropriate identification? | Yes | No | N/A |
| b. Dry pipe valve free from physical damage, trim in correct (open or closed) position and no leakage from intermediate chamber? | Yes | No | N/A |
| c. Gauges on systems with low pressure alarms in good condition showing normal water and air pressure? | Yes | No | N/A |

3. Quarterly Inspection Items (in addition to above items)

- | | | | |
|---|-----|----|-----|
| a. Hydraulic nameplate (calculated systems) securely attached to riser and legible? | Yes | No | N/A |
|---|-----|----|-----|

3. Quarterly Inspection Items (continued)

- | | | | |
|---|-----|----|-----|
| b. Fire department connections visible, accessible, couplings and swivels not damaged, gaskets in place and in good condition, plugs and caps are okay, identification sign(s) in place, check valve is not leaking, and clapper and automatic drain valve in place and operating properly? | Yes | No | N/A |
| (if plugs or caps are not in place, inspect interior for obstructions) | | | |
| c. Alarm and supervisory devices not damaged? | Yes | No | N/A |
| d. Pressure reducing valves in open position, not leaking, with downstream pressure per design criteria, and in good condition with handwheels not broken? | Yes | No | N/A |

4. Annual Inspection Items (in addition to above items)

- | | | | |
|--|-----|----|-----|
| a. Proper number and type of spare sprinklers? | Yes | No | N/A |
| b. Visible sprinklers: | | | |
| 1. Proper position (upright, pendent, sidewall)? | Yes | No | N/A |
| 2. Free of corrosion and physical damage? | Yes | No | N/A |
| 3. Proper clearance below sprinklers? | Yes | No | N/A |
| 4. Free of foreign materials including paint? | Yes | No | N/A |
| 5. Liquid in all glass bulb sprinklers? | Yes | No | N/A |
| c. Visible Pipe: | | | |
| 1. In good condition/no external corrosion? | Yes | No | N/A |
| 2. No mechanical damage or leaks? | Yes | No | N/A |
| 3. No external loads? | Yes | No | N/A |
| d. Visible pipe hangers and seismic braces not damaged or loose? | Yes | No | N/A |
| e. Dry pipe valve passed internal inspection? | Yes | No | N/A |
| f. Sprinkler wrench with spare sprinklers? | Yes | No | N/A |
| g. Information sign is attached and legible? | Yes | No | N/A |
| h. Internal inspection of the pipe performed in the last 5 years (remove a flushing connection and one sprinkler near the end of a branch line)? | Yes | No | N/A |
| (If "No" conduct internal inspection) | | | |

5. Fifth Year Inspection Items (in addition to above items)

- | | | | |
|---|-----|----|-----|
| a. Check valves internally inspected, all parts operate properly and are in good condition? | Yes | No | N/A |
| b. Strainers, filters, restricted orifices and diaphragm chambers on dry pipe valves and trim passed internal inspection? | Yes | No | N/A |
| c. Internal pipe inspection performed per 4.g? | Yes | No | N/A |

B. Testing Report any failures on Part III of this form.

1. Quarterly Tests

- | | | | |
|--|-----|----|-----|
| a. Mechanical waterflow alarm devices passed tests (water-motor alarms actuating and flow observed)? | Yes | No | N/A |
| b. Priming level correct? | Yes | No | N/A |
| c. Low air pressure signal passed test? | Yes | No | N/A |
| d. Quick opening device passed test? | Yes | No | N/A |

1. Quarterly Tests (continued)

- e. Main drain test for system downstream of backflow device or pressure reducing valve:
- | | | | |
|---|-----|----|-----|
| 1. Record static pressure _____ psi and residual pressure _____ psi | | | |
| 2. Was flow observed? | Yes | No | N/A |
| 3. Are results comparable to previous tests? | Yes | No | N/A |

2. Semiannual Tests (in addition to previous items)

- a. Valve supervisory switches indicate movement? Yes No N/A
- b. Electrical waterflow alarm devices passed tests (alarms actuating and flow observed)? Yes No N/A

3. Annual Tests (in addition to previous items)

- a. Main drain test for systems not tested quarterly:
- | | | | |
|--|-----|----|-----|
| 1. Record static _____ psi and residual pressure _____ psi | | | |
| 2. Was flow observed? | Yes | No | N/A |
| 3. Are results comparable to previous tests? | Yes | No | N/A |
- b. Post indicating valves opened until spring or torsion felt in the rod then closed back 1/4 turn? Yes No N/A
- c. Are all sprinklers dated 1920 or later? Yes No N/A
- d. Sprinklers with fast response elements 20 years old or more replaced or successfully sample tested in last 10 years? Yes No N/A
- e. Standard response sprinklers 50 years old or more successfully sample tested in last 10 years? Yes No N/A
- f. Standard response sprinklers 75 years old or more successfully sample tested in last 5 years? Yes No N/A
- g. Dry-type sprinklers replaced or successfully sample tested in last 10 years? Yes No N/A
- h. Sprinklers subject to harsh environment replaced or successfully sample tested in last 5 years? Yes No N/A
- i. All control valves operated through full range and returned to normal position? Yes No N/A
- j. Dry pipe valve partial flow trip test (unless full trip done):
- | | | | |
|--|-----|----|-----|
| 1. Initial air pressure _____ psi and water pressure _____ psi | | | |
| 2. When valve tripped, air pressure _____ psi and time _____ sec | | | |
| 3. Are results comparable to previous tests? | Yes | No | N/A |
- k. Automatic air maintenance devices passed? Yes No N/A
- l. Backflow devices passed forward flow test? Yes No N/A
- m. Pressure reducing valves passed partial flow? Yes No N/A

4. Test for every third year (in addition to previous items)

- a. Dry pipe full flow trip test:
- | | | | |
|--|--|--|--|
| 1. Initial air pressure _____ psi and water pressure _____ psi | | | |
| 2. When valve tripped, air pressure _____ psi and time _____ sec | | | |
| 3. Water delivery time _____ min _____ sec | | | |
- Water delivery time not required to be 60 seconds per NFPA 25*
- | | | | |
|--|-----|----|-----|
| 4. Are results comparable to previous tests? | Yes | No | N/A |
|--|-----|----|-----|
- b. Passed air leakage test? Yes No N/A

5. Tests for every fifth year (in addition to appropriate items)

- a. Sprinklers above high temperature tested? Yes No N/A
- b. Gauges checked by calibrated gauge or replaced? Yes No N/A
- c. Pressure reducing valves passed full flow test? Yes No N/A

C. Maintenance

1. Regular Maintenance Items

- a. If any sprinkler failed the sampling testing of Parts II.B.3.c, d, e or f of this form, were all sprinklers represented by that sample replaced? Yes No N/A
- b. If sprinkler have been replaced, were they proper replacements? Yes No N/A
- c. Dry-pipe systems kept in dry condition? Yes No N/A
- d. Have auxiliary drains been emptied? Yes No N/A
- e. If any of the following were discovered, was an obstruction investigation conducted? Yes No N/A

1. Regular Maintenance Items (continued)

Explain reason(s) and obstruction investigation findings in Part III

1. Defective intake screen on pump supplied from open sources
2. Obstructive material discharged during flow tests
3. Foreign material in dry-pipe valves, check valves or pumps
4. Foreign material in water during drain test or plugging of inspector's test connection
5. Plugging of pipe or sprinklers found during activation or work
6. Failure to flush yard piping or surrounding 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 time out of service (more than one year)
10. There is reason to believe the system contains sodium silicate or its derivatives or highly corrosive fluxes in copper pipe
11. Raw water was pumped into the fire department connection
12. Pinhole leaks
13. A 50 percent increase in time from the original system acceptance test required for water to reach the inspector's test connection during a full flow test.

- f. If conditions were found that require flushing, was flushing of system conducted? Yes No N/A
- g. Adjusted, repaired, reconditioned or replaced components had proper test/inspections performed? Yes No N/A
- h. Was a drain test conducted after opening any closed valve?? Yes No N/A

2. Annual Maintenance Items (in addition to previous items)

- a. Operating stem of all OS&Y valves lubricated, completely closed, and reopened? Yes No N/A
- b. Interior of dry pipe valves cleaned? Yes No N/A
- c. Low points drained during this inspection? Yes No N/A
- d. Sprinklers and spray nozzles protecting commercial cooking equipment and ventilating systems replaced except for bulb-type which show no signs of grease build-up? Yes No N/A

Part III – Comments - Owner or designated representative is responsible for locating and maintaining auxiliary/low point drains (*Any "No" answers, test failures or other problems found with the sprinkler system must be explained here. Also note here any products noticed on the system that have been the subject of a recall or replacement program.*)

Part IV – Inspector's Information

Inspector: _____ Company: _____

Company Address: _____

I state that the information on this form is correct at the time and place of my inspection, and that all equipment tested at this time was left in operating condition upon completion of this inspection except as noted in Part III above.

Signature of Inspector: _____ Date: _____

License or Certification Number (if applicable): _____

State License Number - MN: C0075 / IA: FP-036 / WI: 656060