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

Work Order: 150003672

This form covers the minimum requirements of **NFPA 25 - 2011** for wet 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: **Duluth transit authority** Owner's Phone Number: _____

Owner's Address: _____

Property Being Evaluated: **Downtown Operations Center**

Property Address: **228 West Michigan Street Duluth MN 55802**

Date of Work: **5-19-2021** 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. Weekly Items

a. Control valves (including backflow preventer isolation valves) supervised with seals passed inspection as described in II.A.2a.below?	Yes	No	■ N/A
b. Relief port on RPZ not discharging?	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. Gauges on system in good condition and showing normal water supply pressure?	■ Yes	No	N/A
c. Alarm valve free from physical damage, trim in correct (open or closed) position and no leakage from retarding chamber or drains?	■ Yes	No	N/A

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

a. Fire department connections visible, accessible, couplings and swivels not damaged, gaskets in place and in good condition, identification sign(s) in place, check valve is not leaking, clapper in place and operating properly and automatic drain valve in place and operating properly? *(If plugs or caps are not in place, inspect interior for obstructions)*	■ Yes	No	N/A
b. Hydraulic nameplate (calculated system) securely attached to riser and legible?	■ Yes	No	N/A

3. Quarterly Inspection Items (continued)

c. Alarm & 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 leaks, corrosion and 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. Sprinkler wrench with spare sprinklers?	■ Yes	No	N/A
f. Information sign is attached and legible?	■ Yes	No	N/A
g. 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)? *(If "No" conduct internal inspection)*	Yes	■ No	N/A

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

a. Alarm valves and associated strainers, filters and restricted orifices passed internal inspection?	Yes	No	■ N/A
b. Check valves internally inspected, all parts operate properly and are in good condition?	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 actuated and flow observed)?	■ Yes	No	N/A
b. 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

2. Semiannual Tests (continued)

b. Electrical waterflow alarm devices passed tests (alarms actuated 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 pressure **125** psi and residual pressure **110** 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 replaced or successfully sample tested in last 10 years? ☐ Yes ☐ No ■ N/A

f. Standard response sprinklers 75 years old or more replaced or 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 environments replaced or successfully sample tested in last 5 years? ☐ Yes ☐ No ■ N/A

i. Antifreeze solution specific gravity:
1. Correct at most remote point? ☐ Yes ☐ No ■ N/A
2. Correct at interface with wet system? ☐ Yes ☐ No ■ N/A
3. Correct at other test pionts (over 150 gal)? ☐ Yes ☐ No ■ N/A
4. Correct type of antifreeze ***(recommend collecting and sending in a sample for testing)***? ☐ Yes ☐ No ■ N/A

j. All control valves operated through full range and returned to normal position? ■ Yes ☐ No ☐ N/A

k. Backflow devices passed forward flow test? ☐ Yes ☐ No ■ N/A

l. Pressure reducing valves passed partial flow? ☐ Yes ☐ No ■ N/A

4. 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.d, e, f, g or h 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. Marine systems normally having fresh water were drained and refilled twice if raw water got into the system? ☐ Yes ☐ No ■ N/A

d. Heat tape inspected per manufacturer's instructions? ☐ Yes ☐ No ■ N/A

e. If any of the following were discovered, was an obstruction investigation conducted? ☐ Yes ☐ No ■ N/A

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

1. Regular Maintenance Items (continued)

6. Record of broken mains in the vicinity
7. Abnormally frequent false-tripping of dry-pipe valves
8. Failure to flush yard piping or surrounding mains following new installation or repairs
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

f. If conditions were found that require flushing, was flushing of system conducted? ☐ Yes ☐ No ■ N/A

g. Was a drain test conducted after opening any closed valves? ■ Yes ☐ No ☐ N/A

h. Adjusted, repaired, reconditioned or replaced components had the associated tests and/or inspections required by Table 5.5.1 of NFPA 25 performed? ☐ 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. 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

(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: **Jake Blood** Company: **Summit Fire Protection**

Company Address: **4619 Airpark Blvd Duluth MN 55811**

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): **2605**

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