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## FIRE SPRINKLER SYSTEM – TESTING AND MAINTENANCE REPORT

Building/Business Name: \_\_\_\_\_  
 Address of Property: \_\_\_\_\_  
 Inspector Name: \_\_\_\_\_ Date of Inspection: \_\_\_\_\_

Inspection, testing, and maintenance of a sprinkler system shall be implemented in accordance with procedures meeting those established in NFPA 25 and in accordance with the manufacturer’s instructions.

The building owner or the owner’s representative shall ensure that the frequency of inspection, testing and maintenance occur at intervals specified in NFPA 25. This report is not intended to document those frequencies for an entire year.

The inspection, testing, and maintenance of a sprinkler system shall be performed by personnel who have developed competence through training and experience. At least once in a 5-year period, this shall be performed by a person holding a Certificate of Fitness issued by Portland Fire & Rescue. For a list of sprinkler companies with certified personnel, go to [www.portlandonline.com/fire/](http://www.portlandonline.com/fire/) and click on the “services” tab.

Deficiencies, damaged parts, or impairments found while performing the inspection, test, and maintenance requirements shall be corrected promptly.

Records of all system inspections, tests and maintenance shall be maintained on the premises for a minimum of 6 years, and shall be copied to the Fire Marshal’s office upon request.

### TYPE OF SPRINKLER SYSTEM

Wet       Dry       Preaction       Deluge       Combined Sprinkler/Standpipe

### SPRINKLER COVERAGE

Total       Partial       Basement       Exitways

Monitored by Central station?    Yes     No     Name of Monitoring Company: \_\_\_\_\_

#### 1. GENERAL

|  | Y | N | N/A |
|--|---|---|-----|
| a. Hydraulic nameplate for hydraulically designed system attached securely to riser and legible? See addendum on page 6.   |   |   |     |
| b. Sprinkler piping free of items resting on the pipe or being hung from the pipe?   |   |   |     |
| c. Pipe and fittings in good condition and free of mechanical damage, leakage, and corrosion?  |   |   |     |
| d. Hangers and seismic bracing not damaged or loose?   |   |   |     |
| e. Prior to the onset of freezing weather, were all areas of the building inspected to verify adequate heat (at or above 40°F) to prevent water filled sprinkler piping from freezing? |   |   |     |
| f. Antifreeze system tested? See addendum on page 6.   |   |   |     |
| g. Prior to the onset of freezing weather, were low points drained in dry pipe, preaction and deluge systems?  |   |   |     |
| h. Are all gauges in good condition?   |   |   |     |
| i. Are all gauges in the system showing normal pressures?  |   |   |     |

#### 2. SPRINKLERS

|  | Y | N | Last test date: |
|--|---|---|-----------------|
| a. Heads free from paint, corrosion, foreign materials, and physical damage? |   |   | N/A             |
| b. Proper sprinkler coverage and orientation?                                |   |   | N/A             |
| c. Proper clearances maintained below all heads?                             |   |   | N/A             |
| d. Proper number and type of spare heads available in a cabinet?             |   |   | N/A             |
| e. Sprinkler wrench(s) available for each type of head?                      |   |   | N/A             |

|    |  |  |  |     |
|----|--|--|--|-----|
| f. | Any heads manufactured prior to 1920? If yes, heads shall be replaced.   |  |  | N/A |
| g. | Any heads in service for more than 75 years? If yes, replace or test representative samples At 5 year intervals.   |  |  |     |
| h. | Any heads in service for more than 50 years? If yes, replace or test representative samples At 10 year intervals.  |  |  |     |
| i. | Any fast-response heads in service for more than 20 years? If yes, replace or test representative samples at 10 year intervals.                            |  |  |     |
| j. | Any dry heads in service for more than 10 years? If yes, replace or test representative samples At 10 year intervals.                                      |  |  |     |
| k. | Any solder-type heads with extra-high temperature classification (or higher), exposed to maximum allowable temperatures? If yes, test at 5 year intervals. |  |  |     |
| l. | Any heads exposed to harsh/corrosive environments? If yes, replace or test representative samples at 5 year intervals.                                     |  |  |     |

### 3. ALARM DEVICES

|    |  | Y | N | N/A |
|----|--|---|---|-----|
| a. | Inspected and free of physical damage? |   |   |     |
| b. | Waterflow devices tested?              |   |   |     |
| c. | Supervisory signal devices tested?     |   |   |     |

### 4. VALVES, GENERAL

|    |  | Y | N | N/A |
|----|--|---|---|-----|
| a. | Are all valves properly labeled? (main drain, control valve, inspector's test, etc.)                               |   |   |     |
| b. | Valves accessible?   |   |   |     |
| c. | Are all valves in their normal open or closed position and free of physical damage?                                |   |   |     |
| d. | Normally open control valves secured by means of a seal or lock, or electrically supervised?                       |   |   |     |
| e. | Normally closed control valves secured by means of a seal or electrically supervised?                              |   |   |     |
| f. | Valves free from external leaks?   |   |   |     |
| g. | Operating stems of outside screw and yoke valves lubricated?   |   |   |     |
| h. | Has each control valve been operated through its full range and returned to its normal position?                   |   |   |     |
| i. | Main drain test conducted at each water-based fire protection system riser? See addendum on page 6 for test chart. |   |   |     |
| j. | Partial flow test conducted on pressure reducing valves and relief valves?   |   |   |     |
| k. | Full flow test conducted on each master pressure reducing valve?   |   |   |     |

### 5. PREACTION VALVES and DELUGE VALVES

|    |   | Y | N | N/A |
|----|---|---|---|-----|
| a. | Valve enclosures equipped with low temp alarms inspected?   |   |   |     |
| b. | Low temperature alarms, if installed in valve enclosures, inspected and tested?   |   |   |     |
| c. | Low air pressure alarms tested?   |   |   |     |
| d. | Gauges that monitor the detection system pressure, if provided, tested to verify normal pressure is being maintained?               |   |   |     |
| e. | Priming water level in supervised preaction system tested?  |   |   |     |
| f. | Preaction valve trip tested with the control valve partially open?  |   |   |     |
| g. | Deluge Valve trip tested at full flow in warm weather and in accordance with the manufacturer's instructions?                       |   |   |     |
| h. | Inspection of preaction or deluge valve interior and the condition of detection devices when trip test conducted?                   |   |   |     |
| i. | Automatic air pressure maintenance devices tested at time of preaction or deluge valve trip test?                                   |   |   |     |
| j. | Interior of preaction or deluge valve cleaned thoroughly and parts repaired or replaced as necessary? Also see 5 year requirements. |   |   |     |
| k. | Manual actuation devices operated?  |   |   |     |

### 6. DRY PIPE VALVES/QUICK OPENING DEVICES

|    |  | Y | N | N/A |
|----|--|---|---|-----|
| a. | Valve enclosures equipped with low temp alarms inspected?                          |   |   |     |
| b. | Low temperature alarms, if installed in valve enclosures, inspected and tested?    |   |   |     |
| c. | Low air pressure alarms tested?  |   |   |     |
| d. | Priming water level tested?  |   |   |     |
| e. | Are all gauges indicating proper pressures and ratios?                             |   |   |     |
| f. | Each dry pipe valve trip tested in warm weather with control valve partially open? |   |   |     |

|    |   |  |  |  |
|----|---|--|--|--|
| g. | Dry pipe valve interior inspected when trip test conducted?   |  |  |  |
| h. | Was the interior of the dry pipe valve cleaned thoroughly, and parts repaired or replaced as necessary? |  |  |  |
| i. | Automatic air pressure maintenance devices tested at time of dry pipe valve trip test?                  |  |  |  |
| j. | Quick-opening devices, if provided, tested?   |  |  |  |

### 7. WATER STORAGE TANKS

|    |  | Y | N | N/A |
|----|--|---|---|-----|
| a. | Exterior inspection of tank, supporting structure, vents, foundation, catwalks or ladders?                               |   |   |     |
| b. | Exterior painted, coated, or insulated surfaces of the tank and supporting structure inspected for signs of degradation? |   |   |     |
| c. | Expansion joints inspected?  |   |   |     |
| d. | Tank full or at the designated water level?  |   |   |     |
| e. | High and low water level alarms tested?  |   |   |     |
| f. | Automatic tank fill valves inspected and tested?   |   |   |     |
| g. | Strainers cleaned?   |   |   |     |
| h. | Water temperature checked and maintained at or above 40 °F?  |   |   |     |
| i. | Heating system inspected and tested?   |   |   |     |
| j. | Low water temperature alarms tested?   |   |   |     |
| k. | High water temperature limit switches on tank heating system tested when heating system is in service?                   |   |   |     |
| l. | Air pressure in pressure tank inspected?   |   |   |     |

### 8. FIRE DEPARTMENT CONNECTIONS

|    |  | Y | N | N/A |
|----|--|---|---|-----|
| a. | Visible and accessible?  |   |   |     |
| b. | Couplings or swivels not damaged and rotate smoothly?  |   |   |     |
| c. | Plugs or caps in place and undamaged?  |   |   |     |
| d. | If plugs or caps not in place, was the interior of the connection inspected for obstructions or pipe back flushed? |   |   |     |
| e. | Gaskets in place and in good condition?  |   |   |     |
| f. | Identification signs in place?   |   |   |     |
| g. | Check valve(s) not leaking?  |   |   |     |
| h. | Automatic drain valve in place and operating properly?   |   |   |     |
| i. | Clapper(s) in place and operating properly?  |   |   |     |

### 9. HOSE STATIONS

|    |  | Y | N | N/A |
|----|--|---|---|-----|
| a. | Nozzle(s) inspected to verify waterway is clear of obstructions, and all parts operate correctly and are undamaged?                        |   |   |     |
| b. | Hose valves inspected and caps in place if necessary?  |   |   |     |
| c. | Was the hose removed, inspected, and returned to the correct stored position?  |   |   |     |
| d. | Hose record maintained or tag fastened correctly with complete information?  |   |   |     |
| e. | Is all hose lined? If not, the hose shall be replaced with lined fire hose.  |   |   |     |
| f. | What date was the hose manufactured?   |   |   |     |
| g. | When was the hose last service tested? Test 5 years from date of manufacture and every 3 years thereafter (or replace hose every 5 years). |   |   |     |

### 10. 3 YEAR REQUIREMENTS

|    |  | Y | N | Date last completed: |
|----|--|---|---|----------------------|
| a. | <b>HOSE VALVES ON HOSE STATIONS:</b> Tested by opening and closing?  |   |   |                      |
| b. | <b>PREACTION VALVES:</b> trip tested with control valve fully open?  |   |   |                      |
| c. | <b>DRY PIPE VALVES:</b> trip tested with control valve fully open and the quick-opening device, if provided, in service? |   |   |                      |
| d. | <b>DRY PIPE SYSTEM:</b> tested for air leakage with satisfactory results?  |   |   |                      |
| e. | <b>WATER STORAGE TANKS WITHOUT CORROSION PROTECTION (UNLINED):</b> Internal inspection performed?                        |   |   |                      |

### 11. 5 YEAR REQUIREMENTS

|    |   | Y | N | Date last completed: |
|----|---|---|---|----------------------|
| a. | Internal inspection of piping and branch line conditions? |   |   |                      |
| b. | Have all gauges been tested, calibrated or replaced?      |   |   |                      |
| c. | Internal inspection performed on check valves?            |   |   |                      |

|    |   |  |  |  |
|----|---|--|--|--|
| d. | Internal inspection performed on alarm valves and their associated strainers, filters, and restriction orifices?                              |  |  |  |
| e. | <b>PREACTION AND DELUGE VALVES:</b> Internal inspection and maintenance performed on valves that can be reset without removal of a faceplate? |  |  |  |
| f. | <b>DRY PIPE VALVES/QUICK OPENING DEVICES:</b> Internal inspection performed on strainers, filters, and restriction orifices?                  |  |  |  |
| g. | <b>PRESSURE REDUCING VALVES AND RELIEF VALVES:</b> Full flow test performed on each valve? See addendum on page 7 for test chart.             |  |  |  |
| h. | <b>WATER STORAGE TANK WITH CORROSION PROTECTION (LINED):</b> Internal inspection performed?   |  |  |  |
| i. | <b>WATER STORAGE TANKS:</b> Level indicators tested for accuracy and freedom of movement?   |  |  |  |

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**Deficiencies found during inspection:**

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**Deficiencies corrected:**

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**Please provide any further comments or issues of concern that may require follow up:**

Has the building owner/representative been notified of any deficiencies? Yes  No

If Yes, who was notified? \_\_\_\_\_

If No, why was the owner/representative not notified? \_\_\_\_\_

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**Declaration**

Completed Date and Time of Inspection: \_\_\_\_\_

Sprinkler system returned to service? Yes  No  If No, document reason \_\_\_\_\_

I \_\_\_\_\_ certify that I inspected and tested the sprinkler system at the address identified in this report, documented the conditions found during the inspection and have listed all deficiencies that were either corrected prior to leaving or require additional follow up. Any deviation or items identified by NFPA 25 to be tested that were not by nature of the site conditions or service contract have been identified on this report.

Signature \_\_\_\_\_ Date: \_\_\_\_\_

## ADDENDUM #1

| <b>Hydraulic Design Information</b> |         |            |
|-------------------------------------|---------|------------|
| System #                            | Density | Appl. Area |
|                                     | gal.    | ft.        |
|                                     | gal.    | ft.        |
|                                     | gal.    | ft.        |
|                                     | gal.    | ft.        |
|                                     | gal.    | ft.        |
|                                     | gal.    | ft.        |

| <b>Antifreeze Test</b> |                           |                        |
|------------------------|---------------------------|------------------------|
| Antifreeze type        | Freezing temp of solution | Freezing temp correct? |
|                        |                           |                        |
|                        |                           |                        |
|                        |                           |                        |

| <b>Main Drain Test</b> |                |                        |                          |                                |
|------------------------|----------------|------------------------|--------------------------|--------------------------------|
| System # or location   | Size test pipe | Static pressure before | Residual (flow) pressure | Return time to static pressure |
|                        |                |                        |                          |                                |
|                        |                |                        |                          |                                |
|                        |                |                        |                          |                                |
|                        |                |                        |                          |                                |
|                        |                |                        |                          |                                |
|                        |                |                        |                          |                                |
|                        |                |                        |                          |                                |
|                        |                |                        |                          |                                |
|                        |                |                        |                          |                                |
|                        |                |                        |                          |                                |

| <b>Dry Valve Trip Test</b> |              |                |                       |           |  |                             |
|----------------------------|--------------|----------------|-----------------------|-----------|--|-----------------------------|
| System #                   | Air pressure | Water pressure | Tripping air pressure | Trip time | Time water flows steadily from test connection | Compared to previous tests? |
|                            | psi          | psi            | psi                   | sec.      | sec.   |                             |
|                            | psi          | psi            | psi                   | sec.      | sec.   |                             |
|                            | psi          | psi            | psi                   | sec.      | sec.   |                             |
|                            | psi          | psi            | psi                   | sec.      | sec.   |                             |

