

## Inspection, Testing and Maintenance of Foam-Water Sprinkler Systems

<b>Service Company</b>	<b>Date of Service</b>	<b>Time</b>	<b>Last Service Date</b>
	<input type="checkbox"/> Weekly	<input type="checkbox"/> Quarterly	<input type="checkbox"/> Fifth year
	<input type="checkbox"/> Monthly	<input type="checkbox"/> Annual	<input type="checkbox"/> Tenth year
	<b>Owner:</b>		<b>Phone:</b>
<b>Contact Person:</b>		<b>Fax:</b>	<b>Phone:</b>
<b>Fax:</b>			
<b>Building Name:</b>	<b>Address:</b>	<b>City:</b>	<b>Postal Code:</b>

“√” Yes - Satisfactory    “X” No - Unsatisfactory    N/A Not applicable    (Explain “X” No answers in comments)

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|--|---|
| <p><b>Daily Items (Weekly if low temperature alarms are installed)</b></p> <p>_____ Enclosures around preaction/deluge valves are maintained min 40F/4C?</p> <p><b>Weekly</b></p> <p>_____ Relief port on reduced pressure backflow prevention assemblies is not continuously discharging?</p> <p><b>Weekly Items (monthly if electrically supervised or locked)</b></p> <p>_____ Gauges on preaction/deluge systems are in good condition an showing normal air and water pressure?</p> <p><b>Control and isolation valves on backflow prevention devices:</b></p> <p>_____ Normal position?</p> <p>_____ Sealed, locked or supervised and accessible?</p> <p><b>Monthly</b></p> <p>_____ Sprinklers are not damaged or impaired?</p> <p>_____ Alarm devices are free from damage and electrical connections secures?</p> <p><b>Preaction and Deluge valves.</b></p> <p>_____ Free from physical damage?</p> <p>_____ Trim valves in appropriate (open or closed) position?</p> <p>_____ Trim valves have no leakage from seat?</p> <p>_____ Electrical components in service?</p> <p>_____ Control valves are in normal position?</p> <p><b>Foam-Water Discharge Spray Nozzles.</b></p> <p>_____ In place and aimed in proper direction?</p> <p>_____ Free from obstruction and corrosion?</p> <p>_____ Caps or plugs (if required) in place?</p> <p><b>Proportioning Systems</b></p> <p>_____ All valves positions verified?</p> <p>_____ Adequate foam concentrate for original design?</p> <p><b>Standard pressure Proportioners:</b></p> <p>_____ Ball drip valves are free and open?</p> <p>_____ Foam concentrate tank is free of corrosion?</p> <p><b>Bladder Tank Proportioners</b></p> <p>_____ Water control valves to tank in proper position?</p> <p>_____ Foam concentrate tank free of corrosion?</p> <p><b>Line Proportioners</b></p> <p>_____ Strainers clear per manufacturers instructions?</p> <p>_____ Pressure vacuum vent is operational?</p> <p>_____ Foam concentrate tank free of corrosion?</p> <p><b>Standard Balanced Pressure Proportioners</b></p> <p>_____ Strainers clear per manufacturers instructions?</p> <p>_____ Pressure vacuum vent is operational?</p> <p>_____ Gauges are in good condition?</p> | <p>_____ Sensing line valves are open?</p> <p>_____ Power available to foam liquid pump?</p> <p><b>In-Line Balanced Pressure Proportioner</b></p> <p>_____ Strainers clear per manufacturers instructions?</p> <p>_____ Gauges at pump in good condition?</p> <p>_____ Gauges at proportioners in good condition?</p> <p>_____ Sensing line valves at pump open?</p> <p>_____ Sensing line valves at proportioner open?</p> <p>_____ Power available to foam liquid pump?</p> <p><b>Orifice Plate Proportioners</b></p> <p>_____ Strainers clear per manufacturers instructions?</p> <p>_____ Pressure vacuum vent is operational?</p> <p>_____ Power available to foam liquid pump?</p> <p>_____ Gauges are in good condition?</p> <p><b>Quarterly</b></p> <p>_____ Piping and fittings are free of damage, corrosion and misalignment?</p> <p>_____ Low point drains are in good condition?</p> <p>_____ Rubber gasketed fittings are in proper location and condition?</p> <p>_____ Hangers and supports are in good condition, secured to structural members and are not missing?</p> <p><b>Fire Department Connections?</b></p> <p>_____ Visible, accessible and identified?</p> <p>_____ Couplings and swivels not damages and rotate smoothly?</p> <p>_____ Plugs or caps in place and undamaged?</p> <p>_____ Gaskets in place and in good condition?</p> <p>_____ Check valves not leaking?</p> <p>_____ Automatic drain valves in place and operating properly?</p> <p>_____ Blow-down valve(s) on foam concentrate strainer(s) closed &amp; plugged?</p> <p>_____ Drainage system in good condition?</p> <p><b>Annual Items</b></p> <p>_____ Interior of preaction/deluge valves which cannot be reset without opening are in good condition?</p> <p>_____ Gauges are in good condtion and normal supply pressure?</p> <p>_____ Piping is in good condition &amp; free from mechanical damage?</p> <p><b>Foam Water Discharge Sprinklers.</b></p> <p>_____ In place and aimed in the proper direction?</p> <p>_____ Free from obstruction and corrosion?</p> <p>_____ Caps or plugs if required are in place?</p> <p><b>Fire Year Items.</b></p> <p>_____ Check valves - internally inspect every 5 years?</p> <p>_____ Strainers, filter, restricted orifices and diaphragm chambers on preaction/deluge valves passed internal inspection?</p> <p>_____ Interior of preaction/deluge valves that can be reset without opening are in good condition?</p> |
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# Inspection, Testing and Maintenance of Foam-Water Sprinkler Systems

## Testing

### Quarterly Testing

- \_\_\_\_\_ Control valves opened until spring or torsion rod is felt in the rod then closed back ¼ turn. (except OS & Y and gear operated indicating valves)?
- \_\_\_\_\_ Priming water level and low air pressure signal in preaction systems passed test?
- \_\_\_\_\_ Valve supervisory devices indicate movement?
- \_\_\_\_\_ Waterflow alarms tested?
- \_\_\_\_\_ Conduct main drain flow test?
- \_\_\_\_\_ Static pressure \_\_\_\_\_ psi/kpa
- \_\_\_\_\_ Residual water supply pressure \_\_\_\_\_ psi/kpa

### Annual

- \_\_\_\_\_ Operational Test:(Test all systems together which will operate simultaneously)?
- \_\_\_\_\_ Discharge devices properly located & unobstructed?
- \_\_\_\_\_ Discharge patterns unimpeded?
- \_\_\_\_\_ Foam concentrate strainers baskets and screens are cleaned after each test?
- \_\_\_\_\_ **Proportioning System(s)**
- \_\_\_\_\_ Record response time \_\_\_\_\_?
- \_\_\_\_\_ Record discharge time \_\_\_\_\_?
- \_\_\_\_\_ Record pressure at most remote device \_\_\_\_\_ psi/kpa?
- \_\_\_\_\_ Record pressure at main control valve \_\_\_\_\_ psi/kpa?
- \_\_\_\_\_ Multiple systems tested simultaneously?
- \_\_\_\_\_ Are above pressures and times acceptable?
- \_\_\_\_\_ Manual actuation devices operated properly?
- \_\_\_\_\_ Connection to riser flushed?
- \_\_\_\_\_ Preaction and deluge valves passed test?
- \_\_\_\_\_ Manual actuation devices passed test?
- \_\_\_\_\_ System returned to service?
- \_\_\_\_\_ Control valves operated through full range and returned to normal?

- \_\_\_\_\_ Backflow prevention devices passed backflow test?
- \_\_\_\_\_ Backflow prevention devices passed full flow test?
- \_\_\_\_\_ Foam-water concentrate shall be tested to verify concentration of solution?
- \_\_\_\_\_ Piping exposed and underground flow test every 5 yrs?
- \_\_\_\_\_ Deluge/preaction valves shall be trip tested annually at full flow?(exceptions)
- \_\_\_\_\_ Detection systems operates within the requirements of NFPA 72?
- \_\_\_\_\_ Record response time \_\_\_\_\_ sec?
- \_\_\_\_\_ Water supply tanks?(see form for Tests for Water Storage Tanks)
- \_\_\_\_\_ Water supply flow test?(see Private Fire Service Main inspection and test)

### Maintenance

#### Monthly

- \_\_\_\_\_ Foam concentrate pump (if present) run?

#### Quarterly

- \_\_\_\_\_ Strainers cleaned per manufacturers instructions?

### Annual

- \_\_\_\_\_ Foam concentrate samples submitted per manufacturers instructions?
- \_\_\_\_\_ Operating stem of all OS&Y valves lubricated, completely open and closed?
- \_\_\_\_\_ Interior of preaction valves cleaned?

### Fifth Year

- \_\_\_\_\_ Standard Pressure Proportioner?
- \_\_\_\_\_ Automatic ball drip valve disassembled and cleaned?

### Standard Balanced Pressure Proportioner

- \_\_\_\_\_ Foam pumps, drive trains and drivers serviced?
- \_\_\_\_\_ Balancing valve diaphragm flushed?
- \_\_\_\_\_ No internal corrosion in foam concentrate tank?

### In-Line Balanced Pressure Type

- \_\_\_\_\_ Foam pumps, drive trains and drivers serviced?
- \_\_\_\_\_ Pressure Vacuum Vents are cleaned and maintained?

### Tenth Year

#### Standard Pressure Proportioner

- \_\_\_\_\_ Foam concentrate tank drained and flushed?
- \_\_\_\_\_ Foam liquid tank inspected for internal and external corrosion?
- \_\_\_\_\_ Foam liquid tank hydrostatically tested to working pressure?

#### Bladder Type Tank

- \_\_\_\_\_ Sight glass removed and cleaned?
- \_\_\_\_\_ Foam concentrate tank hydrostatically?

#### Line Type Proportioner

- \_\_\_\_\_ Inspected for internal corrosion?
- \_\_\_\_\_ Tank drained and flushed?

#### Standard Balanced Pressure Proportioner

- \_\_\_\_\_ inspected internally for corrosion and sediment?
- \_\_\_\_\_ **In-Line Balanced Pressure Proportioner** is inspected internally for corrosion and sediment?

#### Obstruction Investigation

- \_\_\_\_\_ If any of the following were discovered, was an obstruction investigation conducted and the systems flushed?
- \_\_\_\_\_ Defective intake screen for pumps taking suction from open sources?
- \_\_\_\_\_ Obstructive material discharged during waterflow tests?
- \_\_\_\_\_ Foreign materials found in check valves or pumps?
- \_\_\_\_\_ Heavy discoloration of water during drain test or plugging of inspectors test connection?
- \_\_\_\_\_ Plugging of sprinklers or nozzles found during activation?
- \_\_\_\_\_ Failure to flush yard piping or surrounding public mains following new installations or repairs?
- \_\_\_\_\_ Record of broken mains in the vicinity?
- \_\_\_\_\_ Abnormally frequent false-tripping of valves?
- \_\_\_\_\_ System is returned to service after an extended period of out of service (greater than one year)
- \_\_\_\_\_ There is reason to believe there is sodium silicate (stop leak) or its derivatives?

## Comments:

