Inspection, Testing and Maintenance of Foam-Water Sprinkler Systems

Service Company	Date of Service	Time	Last Service Date
	☐ Weekly ☐ Monthly ☐ Quarterly ☐ Annual ☐ Fifth year ☐ Tenth year		
	Owner:	Phone: Fax:	
	Contact Person:	Phone: Fax:	

Building Name:	Address:	City:	Postal Code:

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

Daily Items (Weekly if low temperature alarms are installed)

_____ Enclosures around preaction/deluge valves are maintained min 4C/40F?

Weekly

_____ Relief port on reduced pressure backflow prevention assemblies is not continuously discharging?

Weekly Items (monthly if electrically supervised or locked)

_____ Gauges on preaction/deluge systems are in good condition an showing normal air and water pressure?

Control and isolation valves on backflow prevention devices:

_____ Normal position?

_____ Sealed, locked or supervised and accessible?

Monthly

_____ Sprinklers are not damaged or impaired?

_____ Alarm devices are free from damage and electrical connections secures?

Preaction and Deluge valves.

_____ Free from physical damage?

_____ Trim valves in appropriate (open or closed) position?

_____ Trim valves have no leakage from seat?

_____ Electrical components in service?

_____ Control valves are in normal position?

Foam-Water Discharge Spray Nozzles.

_____ In place and aimed in proper direction?

_____ Free from obstruction and corrosion?

_____ Caps or plugs (if required) in place?

Proportioning Systems

_____ All valves positions verified?

_____ Adequate foam concentrate for original design?

Standard pressure Proportioners:

_____ Ball drip valves are free and open?

_____ Foam concentrate tank is free of corrosion?

Bladder Tank Proportioners

_____ Water control valves to tank in proper position?

_____ Foam concentrate tank free of corrosion?

Line Proportioners

_____ Strainers clear per manufacturer's instructions?

_____ Pressure vacuum vent is operational?

_____ Foam concentrate tank free of corrosion?

_____ **Standard Balanced Pressure Proportioners**

Strainers clear per manufacturer's instructions?

_____ Pressure vacuum vent is operational?

_____ Gauges are in good condition?

_____ Sensing line valves are open?

_____ Power available to foam liquid pump?

In-Line Balanced Pressure Proportioner

_____ Strainers clear per manufacturer's instructions?

_____ Gauges at pump in good condition?

_____ Gauges at proportioners in good condition?

_____ Sensing line valves at pump open?

_____ Sensing line valves at proportioner open?

_____ Power available to foam liquid pump?

Orifice Plate Proportioners

_____ Strainers clear per manufacturers instructions?

_____ Pressure vacuum vent is operational?

_____ Power available to foam liquid pump?

_____ Gauges are in good condition?

Quarterly

_____ Piping and fittings are free of damage, corrosion and misalignment?

_____ Low point drains are in good condition?

_____ Rubber gasketed fittings are in proper location and condition?

_____ Hangers and supports are in good condition, secured to structural members and are not missing?

Fire Department Connections?

_____ Visible, accessible and identified?

_____ Couplings and swivels not damages and rotate smoothly?

_____ Plugs or caps in place and undamaged?

_____ Gaskets in place and in good condition?

_____ Check valves not leaking?

_____ Automatic drain valves in place and operating properly?

_____ Blow-down valve(s) on foam concentrate strainer(s) closed & plugged?

_____ Drainage system in good condition?

Annual Items

_____ Check for foam in water around the bladder

_____ Interior of preaction/deluge valves which cannot be reset without opening are in good condition?

_____ Gauges are in good condition and normal supply pressure?

_____ Piping is in good condition & free from mechanical damage?

Foam Water Discharge Sprinklers.

_____ In place and aimed in the proper direction?

_____ Free from obstruction and corrosion?

_____ Caps or plugs if required are in place?

Fire Year Items.

_____ Check valves - internally inspect every 5 years?

_____ Strainers, filter, restricted orifices and diaphragm chambers on preaction/deluge valves passed internal inspection?

_____ Interior of preaction/deluge valves that can be reset without opening are in good condition?

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 _____kpa/psi?
_____ Record pressure at main control valve_____kpa/psi?
_____ 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?
_____ Diaphragm balancing valve shall be flushed
_____ 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 screed 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:

I state that the information on this form is correct at the time and place of my inspection, and that all equipment was tested in conformance with applicable codes and the Manufacturers requirements and at this time was left in operational condition upon completion of this inspection except as noted in comments.			
Technician Stamp	Date	Time	Owner or Authorized Agent