

Water Mist Systems Inspection, Testing, and Maintenance of Water Mist Systems

Name of Property: _____ Inspector: _____

Address: _____ Contract No.: _____

Phone Number: _____ Date: _____

This Report Covers: Monthly Quarterly Annual
 Other

Inspections

Monthly

- Yes No N/A Water storage tank—sight glass valves are open
- Yes No N/A Water circulation tank—water level is full (unsupervised)

Compressed Gas Cylinders

- Yes No N/A Cylinder pressure _____ psi (bar) unsupervised
- Yes No N/A Cylinder control valve is open
- Yes No N/A Plant air, compressor, and receiver (supervised)

Air pressure _____ psi (bar)

Standby Pump

- Yes No N/A Compressed gas supply inlet air pressure _____ psi (bar)
- Outlet water pressure _____ psi (bar)

Pneumatic Valves

- Yes No N/A Cylinder valves in correct (open or closed) position
- Yes No N/A Master release valves in correct (open or closed position)

System Control Valves

- Yes No N/A In the correct (open or closed) position
- Yes No N/A Sealed, locked, or supervised
- Yes No N/A Accessible
- Yes No N/A Free from damage or leaks
- Yes No N/A Proper signage

Nozzles

- Yes No N/A In place, pointed in the intended direction, and free from external loading and corrosion
- Yes No N/A Blow-off cap (if required) in place and free to operate

Fire Pumps—Electrical Systems

- Yes No N/A Exercise isolating switch
- Yes No N/A Circuit breakers and circuit breaker fuses

Fire Pumps—Battery Systems

- Yes No N/A Remote corrosion, case clean and dry
- Yes No N/A Specific gravity/state or charge
- Yes No N/A Charter/charge rate
- Yes No N/A Equalize charge

Quarterly

- Yes No N/A Water supply pressure _____ psi
- Yes No N/A Water storage tank—water level is full
- Yes No N/A Water tank pressure _____ psi
- Yes No N/A Water storage cylinder (high pressure) water level is full (unsupervised)
- Yes No N/A Additive storage cylinder general condition
- Yes No N/A Water recirculation tank—water level is full (supervised)
- Yes No N/A Compressed gas cylinder support frame and restraints
- Yes No N/A Compressed gas cylinder pressure _____ psi
- Yes No N/A Moisture trap and oil injection in good condition
- Yes No N/A Release valve tubing in good condition

Pipe and Fittings

- Yes No N/A Free of mechanical damage
- Yes No N/A Missing or damaged paint or coatings
- Yes No N/A Free of corrosion or rust
- Yes No N/A Misalignment or trapped sections
- Yes No N/A Low point drains not damaged or corroded

Semi-annual

- Yes No N/A Water supply source in good condition
- Yes No N/A Water tank valves and appurtenances in good condition
- Yes No N/A Water storage cylinder is full
- Yes No N/A Additive agent level is full
- Yes No N/A Air compressor/receiver capacity checked
- Yes No N/A Enclosure integrity verified

Annual

- Yes No N/A Water supply source in good condition
- Yes No N/A Interior of water tank inspected

Form 36

- Yes No N/A Water quality checked
- Yes No N/A Water temperature _____ °F (_____ °C)

High-Pressure Water Storage Cylinder

- Yes No N/A Support frame/restraints in good condition
- Yes No N/A Vent plugs function during refiring
- Yes No N/A Filters on refill connection in good condition
- Yes No N/A Water recirculation tank supports and attachments in good condition

Compressed Gas Cylinders

- Yes No N/A Inspect cylinder capacity and pressure rating
- Yes No N/A Check cylinder compliance specification
- Yes No N/A Compressed gas meets specifications
- Yes No N/A Air supply moisture content acceptable

Test

Quarterly

- Yes No N/A Test start/stop pressure settings for standby pump
_____ psi start _____ psi stop

Annual

- Yes No N/A Water supply tested
_____ psi _____ gpm _____ minute duration
- Yes No N/A Additive agent quality tested
- Yes No N/A Additive agent injection—full discharge test

Water Recirculation Tank

- Yes No N/A Low water level alarm functions
- Yes No N/A Float operated valve functions
- Yes No N/A Pressure at outlet during discharge _____ psi
- Yes No N/A Backflow preventer functions
- Yes No N/A Air supply capacity and duration tested

Pump Performance Test

Use Form 19, Fire Pumps Annual Performance Tests

Pneumatic Valves

- Yes No N/A Solenoid release of master valve functions
- Yes No N/A Manual release of master valve functions
- Yes No N/A Slave valves operate correctly
- Yes No N/A All pneumatic cylinder release valves reset

Form 36

- Yes No N/A On-off cycling of valves tested
- Yes No N/A All control valves operated through full range of motion and returned to normal position
- Yes No N/A Range of motion and returned to normal position
- Yes No N/A Trip test of dry and preaction water mist system

Full Flow Trip Test

- Yes No N/A Unobstructed discharge from all nozzles
- Yes No N/A Pressure reading at control valve
- Yes No N/A Detection system response time _____ sec
- Yes No N/A Detection system tested in accordance with NFPA 72
- Yes No N/A Ventilation system interlocks tested
- Yes No N/A Fuel/lubrication system interlocks tested
- Yes No N/A Cylinders—hydrostatic test every 5-½ years

Maintenance

Semi-annual

- Yes No N/A Air supply filters and moisture traps cleaned
- Yes No N/A Water recirculation tank filters, strainers and cyclone separator cleaned

	Check	Change	Clean	Test
Pump System				
Lubricate bearings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Check pump shaft end play	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pressure gauge/sensors (check accuracy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pump coupling alignment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electrical System				
Trip circuit breaker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operate manual starting means	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Operate emergency manual starting means	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tighten electrical connections (as necessary)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lubricate mechanical moving parts (except starters and relays)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Calibrate pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Switch settings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lubricate motor bearings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments

Signature: _____

Date: _____

License/Certification No.: _____