

## Sprinkler systems

### Spare sprinkler heads

A stock of spare sprinklers (not less than 6) must be kept on the premise where the temperature does not exceed 100 Degrees F and must include all types and ratings installed in the protected facility and provided as follows:

Under 300 sprinklers **six**.

301 - 1000 sprinklers **twelve**.

Over 1000 sprinklers **twenty four**.

### Individuals authorized to perform tasks

There are certain periodic visual inspections, maintenance, and tests required by the Fire Code that the S-12/S-15 Certificate of Fitness holder may perform, and some that they cannot without additional qualifications (refer to S-12/S-15 FDNY certificate of fitness booklet). The table below provides details of the qualifications required for individuals perform various tasks:

	Holding S-12/S-15 only	Q-01 holding S-12/S-15	Master Plumber holding S-12/S-15	Master Fire Suppression Piping Contractor holding S-12/S-15
Visual inspections	Yes	Yes	Yes	Yes
Perform <u>limited</u> maintenance and test of sprinkler system components (refer to the S-12/S-15 booklet for the detail)	No	Yes	Yes	Yes
Test, maintain and repair/replace all sprinkler systems components, but limited to residential occupancies 30 sprinkler heads or less without a booster pump.	No	No	Yes	Yes
Test, maintain and repair/replace all sprinkler systems components	No	No	No	Yes

**The FLS Directors with S-12/S-15 C of F are only authorized to conduct visual inspections of a standpipe system.**

# Test Frequency of Sprinkler Systems

C of F	Certificate of Fitness for (S-12) or (S-15).
Engineer	Refrigeration Operating Engineer (Q-01 or Q-99), NYC High Pressure Operating Engineer, NYS High Pressure Operating Engineer with S-12 C of F  (For employees of a single or multiple properties under common ownership employed by the same building owner/management company)
MFSPC	Master Fire Suppression Piping Contractor License (A or B) with S-12 or S-15 C of F.
MP	Master Plumber License (MP) with S-12 or S-15 C of F.
<p><sup>1</sup> Limited to residential occupancies 30 sprinkler heads or less without booster pump.</p> <p><sup>2</sup> S-95 Supervision for Fire alarm Systems &amp; other related systems.</p> <p><sup>3</sup> Record must be maintained to be checked annually.</p> <p><sup>4</sup> Must be performed once annually by licensed contractor.</p> <p>* Foam-Water Sprinkler Systems ONLY.</p> <p>** Water Spray Fixed Systems ONLY.</p>	

Test frequency requirements for sprinkler system components					
Components		May be performed by			
		C of F	Engineer	MFSPC	MP <sup>1</sup>
<b><u>A. Sprinkler Systems</u></b>					
<b><u>QUARTERLY (4)</u></b>					
Alarm Devices	water motor gong	No	Yes	Yes	Yes <sup>1</sup>
Water Spray system test**		No	No	Yes	Yes
<b><u>SEMIANNUALLY (2)</u></b>					
Alarm Devices (Vane type water flow devices)		No	Yes	Yes	Yes <sup>1</sup>
Pressure Switch Type		No	Yes	Yes	Yes <sup>1</sup>
<b><u>ANNUALLY (1)</u></b>					
Antifreeze solution		No	No	Yes	Yes <sup>1</sup>

Flushing**	No	No	Yes	Yes
Complete foam-water system(s)*	No	No	Yes	Yes
Foam-water solution*	No	No	Yes	Yes
<b><u>5 YEARS</u></b>				
Gauges - Remove & send for calibration test or replace as required	No	Yes <sup>3</sup>	Yes	Yes <sup>1</sup>
Sprinklers - Remove send for extra high temperature test and replace as required	No	No	Yes	Yes <sup>1</sup>
<b><u>10 years &amp; every 10 yrs thereafter</u></b>				
Sprinklers - Dry type	No	No	Yes	Yes <sup>1</sup>
<b><u>20 years &amp; every 10 yrs thereafter</u></b>				
Sprinklers – fast response and residential	No	No	Yes	Yes <sup>1</sup>
<b><u>50 years &amp; every 10 years after</u></b>				
Sprinklers (Standard Response)	No	No	Yes	Yes <sup>1</sup>
<b><u>B. Fire, Booster and Special Service Pumps</u></b>				
<b><u>WEEKLY (52)</u></b>				
Pump operation - No-flow condition	No	Yes	Yes	Yes <sup>1</sup>
Diesel Engine system	tank float switch	No	Yes	Yes <sup>1</sup>
	Solenoids valve operation	No	Yes	Yes <sup>1</sup>
<b><u>MONTHLY (1)</u></b>				
Fire pump – Electric pump (minimum of 10 minutes)	No	Yes	Yes	Yes <sup>1</sup>
Electrical system <sup>2</sup>	Isolating switch & circuit breaker	No	Yes <sup>3</sup>	Yes <sup>1</sup>
Battery system	Specific gravity or state of charge	No	Yes <sup>3</sup>	Yes <sup>1</sup>
<b><u>SEMIANNUALLY (2)</u></b>				
Electrical system <sup>2</sup>	Operating manual starting means (electrical)	No	Yes <sup>3</sup>	Yes <sup>1</sup>
Diesel Engine System	Cooling system	Antifreeze protection level	No	Yes <sup>3</sup>
	Fuel	Tank float switch	No	Yes <sup>3</sup>
			Yes	Yes <sup>1</sup>

		Solenoids valve operation				
	Electrical system	Operation of safeties and alarms				
<b><u>ANNUALLY (1)</u></b>						
Pump operation - Flow condition			No	No	Yes	No
Electrical system <sup>2</sup>	Trip circuit breaker (if mechanism provided)		No	No	Yes	No
	Operate emergency manual starting means (without power)					
Exhaust system	Excessive back pressure		No	No	Yes	No
Diesel Engine System	Tank vents and overflow piping unobstructed		No	No	Yes	No
<b><u>C. Water Storage Tank</u></b>						
<b><u>MONTHLY (12)</u></b>						
Temperature alarms (cold weather)			No	Yes <sup>4</sup>	Yes	Yes <sup>1</sup>
High temperature limit switches (cold weather)			No	Yes <sup>4</sup>	Yes	Yes <sup>1</sup>
<b><u>SEMIANNUALLY (2)</u></b>						
Water level alarms			No	Yes <sup>4</sup>	Yes	Yes <sup>1</sup>
<b><u>5 YEARS</u></b>						
Level indicators			No	No	Yes	Yes <sup>1</sup>
Pressure gauges			No	No	Yes	Yes <sup>1</sup>
<b><u>D. Valve and Valve Component</u></b>						
<b><u>QUARTERLY (4)</u></b>						
Main drain (sole water supply is through a backflow preventer and/or pressure reducing valves)			No	Yes <sup>4</sup>	Yes	Yes <sup>1</sup>
Water-Flow Alarms (pertaining to dry valves, pre-action, and deluge valves)			No	Yes <sup>4</sup>	Yes	Yes <sup>1</sup>
Foam concentrate strainer(s)*			No	No	Yes	Yes
Pre-action and deluge valves	Priming water		No	Yes <sup>4</sup>	Yes	Yes <sup>1</sup>
	Low/high air pressure alarm					

Dry pipe valves and Quick Opening devices	Priming water	No	Yes <sup>4</sup>	Yes	Yes <sup>1</sup>
	Low/high air pressure alarm				
	Quick-opening devices				
<b><u>SEMIANNUALLY (2)</u></b>					
Control Valves Tamper Switch	Supervisory Alarm	No	Yes <sup>4</sup>	Yes	Yes <sup>1</sup>
Water flow alarms	Vane-type and pressure Switch-type water-flow devices	No	Yes <sup>4</sup>	Yes	Yes <sup>1</sup>
<b><u>ANNUALLY (1)</u></b>					
Main drain		No	No	Yes	Yes <sup>1</sup>
Preaction and deluge valves	Full flow	No	No	Yes	Yes <sup>1</sup>
Dry pipe valves and Quick Opening devices	Trip test	No	No	Yes	Yes <sup>1</sup>
Control Valves	Position	No	No	Yes	Yes <sup>1</sup>
	Operation				
Pressure reducing and Relief valves	Circulation relief	No	No	Yes	Yes <sup>1</sup>
	Pressure relief valves				
Backflow prevention Assemblies/Forward flow test		No	No	Yes	Yes <sup>1</sup>
Proportioning system(s)-all*		No	No	Yes	Yes
Manual actuation device(s)*		No	No	Yes	Yes
Backflow preventer(s)*		No	No	Yes	Yes
<b><u>3 YEARS</u></b>					
Dry pipe valves and quick opening devices	Full flow trip test	No	No	Yes	Yes <sup>1</sup>
Pre-action systems	For air leakage	No	No	Yes	Yes
<b><u>5 YEARS</u></b>					
Hydrostatic Test		No	No	Yes	Yes
Pressure reducing & Relief valves	Sprinkler systems	No	No	Yes	Yes <sup>1</sup>
	Hose connections				
	Hose racks				