



Code Reference (NFPA 25 of 2011)	Requirement	Frequency (NFPA 25 of 2011)	Frequency (FM Global Data Sheet 2-81)
Chapter 5 (Sprinkler Systems)			
Chapter 5, Section 5.2.1 (Sprinkler Inspections)	Sprinklers shall be inspected from the floor annually.	Annually	Annually
Chapter 5, Section 5.2.2 (Pipe and Fittings)	Sprinkler pipe and fittings shall be inspected annually from the floor level.	Annually	Annually
Chapter 5, Section 5.2.3 (Hangers and Seismic Restraints)	Sprinkler pipe hangers and seismic braces shall be inspected annually from the floor level.	Annually	Annually
Chapter 5, Section 5.2.4 (Gauges)	Gauges in wet pipe shall be inspected monthly for dry pipe, preaction and deluge systems gauge shall be inspected weekly.	Monthly	Monthly
Chapter 5, Section 5.2.5 (Waterflow Alarm and Supervisory Devices)	Waterflow and supervisory alarm devices shall be inspected quarterly to verify that they are free of physical damage.	Quarterly	Quarterly

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Chapter 6 (Standpipe and Hose Systems)			
Chapter 6, Section 6.2.1 (Components)	Components of standpipe and hose systems shall be visually inspected annually.	Annually	Quarterly
Chapter 6, Section 6.2.2.1 (Gauges)	Gauges on automatic standpipe systems shall be inspected monthly to ensure they are in good condition and that normal water supply pressure is being maintained.	Monthly	Quarterly
Chapter 8 (Fire Pumps)			
Chapter 8, Section 8.3.1.2 (Testing, No-Flow Condition)	A non-flow test shall be conducted for electric motor-driven fire pumps without recirculating water back to the pump suction monthly.	Monthly	Monthly
Chapter 9 (Water Storage Tanks)			
Chapter 9, Section 9.2.1 (Water Level)	Tanks equipped with supervised water level alarms that are connected to a constantly attended location shall be inspected quarterly. Tanks not equipped with supervised water level alarms shall be inspected monthly.	Quarterly/Monthly	Annually/Weekly
Chapter 9, Section 9.2.2 (Air Pressure)	Pressure tanks equipped with supervised pressure alarms that are connected to a constantly attended location shall be inspected quarterly. Pressure tanks not equipped with supervised pressure level alarms shall be inspected monthly.	Quarterly/Monthly	Weekly/Monthly



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Chapter 9, Section 9.2.3 (Heating System)	Tank heating systems installed on tanks with supervised low water temperature alarms that are connected to a constantly attended location shall be inspected weekly. Tank heating systems without a supervised low temperature alarm shall be inspected daily during the heating season.	Weekly / Daily During Heating Season	Varies
Chapter 9, Section 9.2.4 (Water Temperatures)	The temperature of water in tanks with low temperature alarms connected to a constantly attended location shall be inspected and recorded monthly. The temperature of water in tanks without low supervised temperature alarms shall be inspected and recorded weekly during the heating season.	Monthly / Weekly During Heating Season	Daily or More Frequently If Warranted
Chapter 9, Section 9.2.5 (Exterior Inspection)	The exterior of the tank, supporting structure, catwalks, ladders, etc. shall be inspected quarterly.	Quarterly	Every 2 Years
Chapter 9, Section 9.2.5.4 (Exterior Inspection)	Expansion joints, hoops and exterior painted coatings shall be inspected annually.	Annually	Every 2 Years
Chapter 9, Section 9.3 (Testing)	Low water temperature alarms shall be tested monthly.	Monthly	Varies
Chapter 9, Section 9.3 (Testing)	Automatic tank fill valves shall be inspected weekly and in accordance with Table 9.5.1.1.	Weekly	Weekly (unsupervised)/ Monthly (supervised)
Chapter 13 (Valves, Components and Trim)			
Chapter 13, Section 13.2.6.1 (Alarm Devices)	Mechanical waterflow devices, including but not limited to water motor gongs, shall be tested quarterly.	Quarterly	Quarterly
Chapter 13, Section 13.2.6.2 (Alarm Devices)	Vane-type and pressure switch-type waterflow devices shall be tested semiannually.	Semiannually	Quarterly



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Chapter 13, Section 13.2.7.1 (Gauges)	Gauges shall be inspected monthly to verify they are in good condition and that normal pressure is being maintained.	Monthly	Monthly
Chapter 13, Section 13.3.2.1.1 (Inspection)	Valves secured with locks or supervised in accordance with NFPA standards shall be permitted to be inspected monthly.	Monthly	Monthly
Chapter 13, Section 13.3.2.2 (Inspection)	The valve inspection shall verify that the valves are in the following condition: (1) In the normally open or closed position, (2) Sealed, locked or supervised, (3) Accessible, (4) Provided with correct wrenches, (5) Free from external leaks, (6) Provided with applicable identification.	Monthly	Monthly
Chapter 13, Section 13.3.3.1 (Testing)	Each control valve shall be operated annually through its full range and returned to its normal position.	Annually	Annually
Chapter 13, Section 13.3.3.1 (Testing)	Supervisory switches shall be tested semiannually.	Semiannually	Semiannually
Chapter 13, Section 13.3.3.5 (Supervisory Switches)	The operating stems of outside screw and yoke valves shall be lubricated annually.	Annually	Annually
Chapter 13, Section 13.3.4 (Maintenance)	OS&Y valves shall be externally inspected monthly.	Monthly	Weekly
Chapter 13, Section 13.4.2 (Check Valves)	Check valves shall be externally inspected monthly.	Monthly	Weekly
Chapter 13, Section 13.4.3.1.6 (Preaction Valve and Deluge Valves)	Preaction and Deluge valves shall be externally inspected monthly.	Monthly	Weekly
Chapter 13, Section 13.4.4 (Dry Pipe Valves)	Low temperature alarms, gauges shall be inspected weekly.	Weekly	Annually



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Chapter 13, Section 13.4.4.1.4 (Dry Pipe Valves)	Dry pipe valves shall be externally inspected monthly.	Monthly	Weekly
Chapter 13, Section 13.5.1 (Pressure Reducing Valves and Relief Valves)	All valves shall be inspected quarterly to verify the valves are in the open position, not leaking, maintaining downstream pressure and in good condition.	Quarterly	Refer to FM Global Data Sheet 3-11: Pressure Reducing Valves for Fire Protection Service
Chapter 13, Section 13.5.6.1.1 (Hose Valves - Inspections)	Hose valves shall be inspected quarterly.	Quarterly	Quarterly
Chapter 13, Section 13.5.6.2.1 (Hose Valves - Testing)	Class I and Class III standpipe system hose valves shall be tested annually by opening and closing the valves.	Annually	Annually
Chapter 13, Section 13.5.7.1 - 15.5.7.2 (Fire Pump Pressure Relief Valves)	All circulation relief and pressure relief valves shall be inspected weekly, verifying the water flows the valve when the pump is operating.	Weekly	Annually
Chapter 13, Section 13.7 (Fire Department Connections)	Fire department connections shall be inspected quarterly to verify the connections are visible and rotate, caps are in place, gaskets are in place, signage is in place, check valve is not leaking, automatic drain valve is in place and not leaking and the clappers are in place and operating.	Quarterly	Annually



As noted hereinabove, the differences are present but are not as significant as you might have thought when it comes to projects in NYC. The differences in design criteria for fire protection systems, between underwriters' requirements, current applicable construction codes and existing building systems is more significant. This topic will be covered in another article.

The documentation used when performing any inspection, testing and maintenance should follow the standards provided by NFPA 25 as they are recognized and accepted.

The scheduling of inspection, testing and maintenance for fire protection systems is a requirement for municipalities and insurance carriers. It is a challenge for any type of building however the challenge is compounded when the building, be it tall or long, is large or if a campus is being looked at. Thoroughly cataloguing the pieces of equipment comprising the fire protection systems goes a long way in ensuring that time is properly used. It also permits the generation of compliance reports. NFC tag technology can assist with this type of effort and Rael Fire Protection's REDi platform is worth considering. Please refer to the following link for additional information on NFC tag technology:

[Our Technology | RAEL \(raelfireprotection.com\)](http://raelfireprotection.com)

References:

NYC Construction Codes: [Buildings - NYC Codes](#)

FM Global Data Sheets: [FM Global Loss Prevention Data Sheets – FM Global](#)