

USAFP'S NFPA 25 INSPECTIONS, TESTING, & MAINTENANCE CHECKLIST

WEEKLY ITEMS

- Ensure all control valves are in proper position
- Verify temperature >40°F in valve enclosures
- Verify RPZ relief is not constantly discharging
- Check gauges to ensure the static water supply pressure & air pressure are normal

MONTHLY ITEMS

- Examine the exterior of dry, preaction, deluge, & alarm check valves
- Inspect the condition of the air compressors, wiring, air lines, & oil level

QUARTERLY ITEMS

- Visualize Fire Department Connections (FDC)
- Examine electronically supervised control valves
- Check sprinkler system pressure reducing & relief valves
- Visualize hose valves
- Inspect supervisory signal devices & waterflow alarm devices
- Main drain test for systems with backflow preventers
- Test mechanical water motor gong if present
- Test priming water level & quick opening devices on dry systems

SEMI-ANNUAL ITEMS

- Test vane type waterflow switches
- Test pressure type waterflow switches
- Test valve supervisory switches
- Verify nitrogen concentration in dry systems equipped with N2 generators

ANNUAL ITEMS

- Inspect sprinklers, exposed pipe, & fittings from floor level
- Inspect hose, hose cabinets, hose connections, nozzles, storage devices & stapipe piping
- Inspect hangers & bracing
- Inspect & flow hydrants
- Interior inspection of dry valves
- Verify proper signage is present
- Confirm proper number & type of spare sprinklers & proper wrenches
- Clean dry pipe valve internals
- Empty low point drains
- Operational test of Class I & Class III hose valves
- Test control valves
- Test any other supervisory signal devices
- Partial trip test of dry, preaction, and/or deluge valves
- Partial flow test of pressure regulating or pressure reducing valves
- Lubricate stems of OS&Y valves
- Lubricate hydrant stems, caps, plugs, & threads

3-YEAR ITEMS

- Operational test of Class II hose valves
- Full flow trip test of dry, preaction, &/or deluge valves
- Air leakage test on dry &/or preaction systems

5-YEAR ITEMS

- Internal inspection of pipe
- Internal inspection of non-externally resettable deluge, preaction, & check valves
- Internal inspection of strainers, filters, & orifices
- Test/Replace gauges
- Sample testing of extra high temperature heads exposed to maximum allowable temperature
- Sample testing of heads in harsh environments
- Full flow testing of private main hydrants
- Hydrostatic test of FDC piping
- Hydrostatic test of manual & semiautomatic dry stapipe systems
- Full flow of automatic stapipe systems

20-YEAR ITEMS

- Sample testing of dry sprinkler heads
- Sample testing of ESFR & CMSA with fast-response elements (Retest every 10 years)

25-YEAR ITEMS

- Sample testing of fast response sprinkler heads except ESFR & CMSA (Retest every 10 years)

50-YEAR ITEMS

- Sample testing of all sprinkler heads (Retest every 10 years until the system is 75 years old)

75-YEAR ITEMS

- Sample testing of all sprinkler heads (Retest every 5 years)



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NFPA 25 ITM Quick Reference Guide

Sprinklers Systems & Fire Pumps - Inspection, Testing, Maintenance

DAILY/WEEKLY	MONTHLY	QUARTERLY*	ANNUALLY	3+ YEARS
SPRINKLER SYSTEM				
<ul style="list-style-type: none"> Backflow prevention assemblies (reduced pressure and reduced pressure detector assemblies) 13.7.1 Control valves; unsecured and unattended 13.3.2.1 Dry pipe valves/ quick-opening devices; enclosure (during cold weather) 13.4.5.1.1 Deluge valve; enclosure (during cold weather) 13.4.4.1.1 Preaction valves; enclosure *during cold weather) 13.4.3.1.1 	<ul style="list-style-type: none"> Gauges (dry and preaction systems) 13.2.7.1.3 Gauges; operable and not physically damaged 13.2.7.1.1 Control valves; locked or supervised 13.3.2.1.1 Dry pipe valves/ quick-opening devices; exterior 13.4.5.1.3 Deluge valve; exterior 13.4.4.1.3 Preaction valves; exterior 13.4.3.1.3 	<ul style="list-style-type: none"> Gauges (wet and deluge systems) 13.2.7.1.2 Control valves; electronically supervised 13.3.2.1.2 Supervisory signal devices (except valve supervisory switches) 5.2.4 Valve supervisory signal devices 5.2.4 Waterflow alarm devices 5.2.4 Fire department connection 13.7.1 Sprinkler pressure-reducing valves 13.5.1.1 Valve supervisory signal initiating device (semiannually) 13.3.2.1.2 Supervisory signal devices (except valve supervisory switches) 5.2.5 Hose valves 13.6.1 Alarm valves; exterior 13.4.1.1 	<ul style="list-style-type: none"> Hanger/braces/supports 5.2.3 Hydraulic design information sign 5.2.5 Information signs 5.2.7; 5.2.8 Antifreeze Information sign 5.2.9 Pipe and fittings 5.2.2 Sprinklers 5.2.1.1 Sprinklers (spare) 5.2.1.4 Dry pipe valves/quick-opening devices; interior 13.4.5.1.4 Deluge valve; interior (annually or 5 years) 13.4.4.1.4 Preaction valves; interior (annually or 5 years) 13.4.3.1.4 Hose connection pressure-regulating devices 13.5.2.1 Hose rack assembly pressure-regulating devices 13.5.3.1 	<p>5 YEARS</p> <ul style="list-style-type: none"> Check valves; interior 13.4.2.1 Dry pipe valves/quick-opening devices; strainers, filters, orifices 13.4.5.1.5 Deluge valve; strainers, filters, orifices 13.4.4.1.5 Deluge valve interior (annually or years) 13.4.4.1.4 Preaction valves; interior (annually 5 years) 13.4.3.1.4 Preaction valves; strainers, filters, orifices 13.4.3.1.5 Alarm valves; interior 13.4.1.2 Alarm valves; strainers, filters, orifices 13.4.1.2
FIRE PUMPS				
<ul style="list-style-type: none"> Diesel pump system 8.2.2(4) Electric pump system 8.2.2(3) Pump 8.2.2(2) Pump house/room 8.2.2(1) Steam pump system 8.2.2(5) 		<ul style="list-style-type: none"> Engine crankcase breather 8.1.1.2.12 	<ul style="list-style-type: none"> Alignment 8.3.6.4 Cable/wire insulation 8.1.1.2.5 Exhaust system and drain condensate trap 8.1.1.2.13 Flexible hoses and connections 8.1.1.2.11 Fuel tank vents and overflow 8.1.1.2.10 Plumbing parts - inside and outside of panels 8.1.1.2.6 Printed circuit board corrosion (PCBs) 8.1.1.2.4 Shaft movement or endplay while running 8.1.1.2.1 Pressure gauges and sensors 8.1.1.2.21 Suction screens 8.3.3.12 	
SPRINKLER SYSTEM				
		<ul style="list-style-type: none"> Waterflow alarm devices (mechanical) 5.3.2.1 Waterflow alarm devices (vane and pressure switch type) (semiannually) 5.3.2.2 Control valve; supervisory switches (semiannually) 13.3.3.5.1 Dry pipe valves/quick-opening devices; priming water 13.4.5.2.1 Dry pipe valves/quick-opening devices; quick opening devices 13.4.5.2.4 Preaction valves; priming water 13.4.3.2.1 Mechanical waterflow alarm devices 13.2.6.1.2 Waterflow alarm devices (vane-type, paddle-type, and pressure switch-type) (semiannually) 13.2.6.2.2 	<ul style="list-style-type: none"> Antifreeze solution 5.3.3 Backflow prevention assemblies 13.7.2.1 Control valve; position and operation 13.3.3.1 Deluge valve; trip test (or 3 years) 13.4.4.2.3 Dry pipe valves/quick-opening devices; trip test (or 3 years) 13.4.5.2.2.3 Dry pipe valves/ quick-opening devices; low air pressure alarm 13.4.5.2.6 Main drain (or quarterly) 13.2.5 Preaction valves/ low air pressure alarms (or quarterly) 13.4.3.2.10 Preaction valves; trip test (or 3 years) 13.4.3.2.3 Circulation relief valves 13.5.6.1.2 Main pressure relief valves 13.5.6.2.3 Hose valves 13.6.2.1 Supervisory signal devices (except valve supervisory switches) 13.2.8.2 	<p>3 YEARS</p> <ul style="list-style-type: none"> Dry pipe valves/quick-opening devices 13.4.5.2.2.1 Dry pipe valves/quick-opening devices; full flow trip test 13.4.5.2 Preaction valves; air leakage 13.4.3.2.5 <p>5 YEARS</p> <ul style="list-style-type: none"> Gauges Chapter 13 Extra high or greater sprinklers 5.3.1.1.1.4 Sprinklers in harsh environment 5.3.1.1.2 Sprinkler pressure-reducing valve flow test 13.5.1.2 Hose connection pressure-regulating devices 13.5.2.2 Hose rack assembly pressure regulating devices 13.5.3.2 <p>10+ YEARS</p> <ul style="list-style-type: none"> Sprinklers (@ 50 years and every 1 thereafter) 5.3.1.1.1; 5.3.1.1.1.1; 5.3.1.1.1.2 Sprinklers (@75 years and every 5 thereafter) 5.3.1.1.1.5 Dry sprinklers (@10 years and every 10 thereafter) 5.3.1.1.1.6 Fast response sprinklers (@20 year and every 10 thereafter) 5.3.1.1.1
FIRE PUMPS				
<ul style="list-style-type: none"> Diesel engine-driven fire pump 8.3.1.1 Electric motor-driven fire pump 8.3.1.2 	<ul style="list-style-type: none"> Electric motor-driven fire pump 8.3.1.2 	<ul style="list-style-type: none"> Fuel tank, float switch, and supervisory signal for interstitial space 8.1.1.2.7 	<ul style="list-style-type: none"> Diesel fuel testing 8.3.4.1 Fire pump alarm signals 8.3.3.10 Main relief valve 8.3.2.1.1 Power transfer switch 8.3.3.9 Pump performance (flow) 8.3.3.1 Supervisory signal for high cooling 	



NFPA 25 ITM Quick Reference Guide
Sprinklers Systems & Fire Pumps - Inspection, Testing, Maintenance

DAILY/WEEKLY	MONTHLY	QUARTERLY*	ANNUALLY	3+ YEARS
SPRINKLER SYSTEM				
			<ul style="list-style-type: none"> • Sprinklers and automatic spray nozzles protecting commercial cooking equipment and ventilation systems 5.4.1.7 • Control valves 13.3.4 • Dry pipe valves/quick-opening devices 13.4.5.3 • Hose valves 13.6.3 • Preaction valves 13.4.3.3 • Deluge valves 13.4.4.3 	
FIRE PUMPS				
Miscellaneous <ul style="list-style-type: none"> • Controller - ITM per manufacturer 8.5 • Diesel engine system - ITM per manufacturer 8.5 • Electric motor and power system - ITM per manufacturer 8.5 			<ul style="list-style-type: none"> • Batteries 8.1.1.2.15 • Circulating water filter 8.1.1.2.20 • Control and power wiring connections 8.1.1.2.16 • Electrical Connections 8.1.1.2.2 • Engine lubricating oil (or 50 operating hours) 8.1.1.2.17 • Engine oil filter (or 50 operating hours) 8.1.1.2.18 • Fuel tank - check for water & foreign materials 8.1.1.2.9 • Measure back pressure on engine turbo 8.1.1.2.14 • Sacrificial anode 8.1.1.2.19 	

*Semiannually where indicated.

➤ Visit the NFPA 25 document information page www.nfpa.org/25 for up-to-date information on NFPA * 25, *Standard on the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems*.