

WHEA

NFPA 25 inspections

A deeper dive

NFPA 25

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Chapter 1 Administration

- Why do we do this?
 - 1.2.1 The purpose of this document is to provide requirements that ensure a reasonable degree of protection for life and property from fire through minimum inspection, testing, and maintenance methods for water-based fire protection systems.
- Coordination with other codes – NFPA 72

Chapter 2 – Referenced Publications

Too many to list here...

Chapter 3 - Definitions

- AHJ Who? How many?
- Approved
- Listed
- Should / Shall
- Deficiency
 - Critical
 - Noncritical

Chapter 3 - Definitions (continued)

- Impairment
 - Emergency
 - Planned
- Pressure regulating
- Pressure restricting

Chapter 3 - Definitions (continued)

- Standpipe
 - Automatic / manual
 - Dry / Wet
 - Class I II III
- Combined standpipe and automatic sprinkler system
- Wet / Dry / Antifreeze
- Deluge / Preaction

Chapter 4 – General Requirements

- Requirements – Responsibility of the property owner or designated representative.
 - Inspection
 - Correction and repairs - deficiency
 - Occupancy changes

Chapter 4 – General Requirements (continued)

- Impairments
- Records
- Inspection
- Testing
- Safety

Chapter 5 – Sprinkler Systems

- Quarterly and annual stuff
- 5 year inspections
 - Internal pipe inspection
 - Check valve internal inspection
 - Gauges test or replace
- Sprinkler head testing
 - Standard response 50 years
 - Quick response 20 years
 - Dry type 10 years
 - Corrosive / High temp 5 years

Chapter 6 – Standpipe and Hose Systems

- Quarterly and annual stuff
- 5 year inspections
 - Internal inspection
 - Check valve internal
 - Gauges
 - Hoses
 - Hydrostatic testing (dry) manual
 - Flow testing automatic standpipe

Chapter 7 – Private Fire Service Mains

- Annually
 - Hydrant flow test
 - Inspect strainers
 - Monitors – full range
- 5 year
 - Piping – flow and compare to previous

Chapter 8 – Fire Pumps

- Weekly inspection
 - Full list of items - 8.2.2
- Weekly test – run diesel fire pump 30 minutes
- Monthly test - run electric fire pump 10 minutes
 - Checklist of items while pump is running – 8.3.2.8

Chapter 8 – Fire Pumps (continued)

- Annual test
 - Alarm signals
 - Flow test – within 95% of rated
- Maintenance
 - Preventative maintenance program
 - Records – must be kept

- Fire Pump Test



Electric Pump with Bypass



Fire Pump Test



Fire Pump Test

Chapter 9 – Water Storage Tanks

Not covered today

Chapter 10 – Water Spray Fixed Systems

- Components covered in other chapters, inspected, test and maintained by those chapters
- System test annually
 - Proper operation, response as designed automatic / manual
 - Alarm
 - Discharge pattern
 - Main drain test

Chapter 11 – Foam Water Sprinkler Systems

- Components covered in other chapters, inspected, test and maintained by those chapters
- Inspections
 - Discharge devices monthly/quarterly
 - Proportioning system – monthly

Chapter 11 – Foam Water Sprinkler Systems (continued)

- Test
 - Discharge devices – annually
 - Foam system
 - Foam water solution

Chapter 12 – Water Mist System

Not covered today

Chapter 13 – Valves, Valve Components, and Trim

- Inspections, test and maintenance
 - Monthly, quarterly and annual
- 3 year
 - Full flow trip test – dry and preaction
 - Deluge annually
- Air leakage test – dry and preaction

Chapter 13 – Valves, Valve Components, and Trim (continued)

- 5 year
 - Check valves, alarm valves, preaction/deluge valves, pressure reducing valves for sprinkler systems, hose valves, and hose racks.

- 5-Year Internal Check Valve Maintenance.



Swing Check

- 5-Year Internal Check Valve Maintenance.



Wafer Check

- 5-Year Internal Check Valve Maintenance.



Flanged Swing Check

Chapter 14 – Obstruction Investigation

- 5 year internal inspection of piping
 - Wet systems – can do every other one, do the other one the next time
 - Dry and preaction systems – every 5 years
 - If something is found – obstruction investigation required
- Obstruction investigation required if – list of items 14.3.1
- Ice obstruction investigation



- Standard Internal Pipe Inspection
 - End of one main
 - End of one branchline
- Internal Pipe Exam for 'at-risk' systems
 - System Valve
 - Riser
 - Cross Main
 - Branch line









Questions?