

28th Annual AHCA/FHEA SEMINAR



**Sprinkler System
Acceptance**

Chapter 25

1

Speaker Information:

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Member: NFPA 13 Committees (Installation; Discharge; Hangers & Braces)
Member: NFPA 25, 3 / 4 Committees
Chair: NFPA 16 Committee
NFPA/AFSA/NFSA Senior Instructor
Really Nice Guy

NFPA 13 – Chapter 25

- 25.1 – Approval of Sprinkler Systems and Private Fire Service Mains
- 25.2 – Acceptance Requirements
- 25.3 – Circulating Closed Loop Systems
- 25.4 – Instructions
- 25.5 - Hydraulic Design Information Sign
- 25.6 – General Information Sign

Contractor's Responsibility:

1. Notify the authority having jurisdiction and the property owner or the property owner's authorized representative of the time and date testing will be performed
2. Perform all required acceptance tests (see Section 25.2)
3. Complete and sign the appropriate contractor's material and test certificate(s) (see Figure 25.1)
4. Remove all caps and straps prior to placing the sprinkler system in service

Acceptance Requirements

• 25.2

Hydrostatic Tests

Dry Pipe & Double Interlock Preaction System(s) Air Test

System Operational Tests

Pressure Reducing Valves

Backflow Prevention Assemblies

Exposure Systems

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Exceptions:

25.2.1.4 Modifications affecting 20 or fewer sprinklers shall not require testing in excess of system working pressure.

25.2.1.5 Where addition or modification is made to an existing system affecting more than 20 sprinklers, the new portion shall be isolated and tested at not less than 200 psi for 2 hrs.

25.2.1.6 Modifications that cannot be isolated, such as relocated drops, shall not require testing in excess of system working pressure.

25.2.3 System Operational Tests

- Water Flow Devices
- Dry Pipe, Pre-Action & Deluge Valves
- Main Drain Valve (flow test)
- Operational Test All Control Valves
- Pressure Reducing Valves
- Back Flow Preventer Test



25.4 Instructions

The installing contractor shall provide the property owner or the property owner's authorized representative with the following:

1. All literature and instructions provided by the manufacturer describing proper operation and maintenance of any equipment and devices installed
2. NFPA 25

25.5 Hydraulic Design Information Sign

The installing contractor shall identify a hydraulically designed sprinkler system with a permanently marked weatherproof metal or rigid plastic sign secured with corrosion resistant wire, chain, or other approved means.

Such signs shall be placed at the alarm valve, dry pipe valve, preaction valve, or deluge valve supplying the corresponding hydraulically designed area.

Hydraulic Calculations	
for _____ ABC Company, employee garage _____ 7499 Franklin Road _____ Charleston, SC	
Contract No. _____ 4001 Date _____ 1 - 7 - 08	
Design data:	
Occupancy classification _____ OED, GR, 1	
Density _____ 0.15 _____ gpm/ft ²	
Area of application _____ 1500 _____ ft ²	
Coverage per sprinkler _____ 120 _____ ft ²	
Special sprinklers _____	
No. of sprinklers calculated _____ 12	
In-rack demand _____	
Hose streams _____ 250 _____ gpm	
Total water required _____ 800.4 _____ gpm	
Including hose streams _____	
Name of contractor _____	
Name of designer _____	
Address _____	
Authority having jurisdiction _____	

25.6 General Information Sign

The installing contractor shall provide a general information sign used to determine system design basis and information relevant to the inspection, testing, and maintenance requirements required by NFPA 25.


Such general information shall be provided with a permanently marked weatherproof metal or rigid plastic sign, secured with corrosion-resistant wire, chain, or other acceptable means.

Such signs shall be placed at each system control riser, antifreeze loop, and auxiliary system control valve.

SPRINKLER SYSTEM — GENERAL INFORMATION	
for _____ _____ _____	
High-piled storage: <input type="checkbox"/> Yes <input type="checkbox"/> No	Date: _____
Rack storage: <input type="checkbox"/> Yes <input type="checkbox"/> No	Flow test data:
Commodity class: _____	Static: _____ psi
Max. storage height: _____ ft	Resid: _____ psi
Aisle width (min.): _____ ft	Flow: _____ gpm
Encapsulation: <input type="checkbox"/> Yes <input type="checkbox"/> No	Pitot: _____ psi
Solid shelving: <input type="checkbox"/> Yes <input type="checkbox"/> No	Date: _____
Flammable/combustible liquids: <input type="checkbox"/> Yes <input type="checkbox"/> No	Location: _____
Other storage: <input type="checkbox"/> Yes <input type="checkbox"/> No	Location of aux/low point drains: _____ _____
Hazardous materials: <input type="checkbox"/> Yes <input type="checkbox"/> No	Original main drain test results:
Idle pallets: <input type="checkbox"/> Yes <input type="checkbox"/> No	Static: _____ psi
Antifreeze systems: <input type="checkbox"/> Yes <input type="checkbox"/> No	Residual: _____ psi
Location: _____	
Dry or aux systems: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Location: _____	
Where injection systems are used to treat MIC or corrosion: Type of chemical: _____ Concentration: _____ For proper disposal, see: _____	
Name of contractor or designer: _____	
Address: _____	
Phone: _____	

Contractor's Material & Test Certificates

Along with As-Built Drawings, these certificates are a part of the system's birth certificate and are required to be maintained by the owner for the life of the system



Contractor's Material and Test Certificate for Aboveground Piping																															
PROCEDURE Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by the property owner or their authorized agent. All defects shall be corrected and systems left in service before contractor's personnel finally leave the job.																															
A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners, and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances.																															
Property name _____	Date _____																														
Property address _____																															
Accepted by approving authorities (names) _____																															
Plans	Address _____																														
	Installation conforms to accepted plans <input type="checkbox"/> Yes <input type="checkbox"/> No Equipment used is approved <input type="checkbox"/> Yes <input type="checkbox"/> No If no, explain deviations _____																														
Instructions	Has person in charge of fire equipment been instructed as to location of control valves and care and maintenance of this new equipment? <input type="checkbox"/> Yes <input type="checkbox"/> No If no, explain _____																														
	Have copies of the following been left on the premises? 1. System components instructions <input type="checkbox"/> Yes <input type="checkbox"/> No 2. Care and maintenance instructions <input type="checkbox"/> Yes <input type="checkbox"/> No 3. NFPA 25 <input type="checkbox"/> Yes <input type="checkbox"/> No																														
Location of system	Supplies buildings _____																														
Sprinklers	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Make</th> <th>Model</th> <th>Year of manufacture</th> <th>Orifice size</th> <th>Quantity</th> <th>Temperature rating</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	Make	Model	Year of manufacture	Orifice size	Quantity	Temperature rating																								
	Make	Model	Year of manufacture	Orifice size	Quantity	Temperature rating																									
Pipe and fittings	Type of pipe _____ Type of fittings _____																														

Contractor's Material & Test Certificates

Cutouts (discs)	Do you certify that you have a control feature to ensure that all cutouts (discs) are retrieved? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Hydraulic data nameplate	Nameplate provided <input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain _____
	Sprinkler contractor removed all caps and straps? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Remarks	Date left in service with all parts and equipment _____	
	Name of sprinkler contractor _____	
Signatures	Tests witnessed by	
	The property owner or their authorized agent (signed) _____	Title _____ Date _____
	For sprinkler contractor (signed) _____	Title _____ Date _____
Additional explanations and notes _____		

Conclusions

Q & A

