AFSA45
THE SIGNS OF NFPA 25
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AFSA
American Fire Sprinkler Association

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Risk Suppression Partners
Terry Victor, Director of Risk Control Services at Risk Suppression Partners, has over 50 years of technical experience in the fire sprinkler industry. He is NICET certified Level IV in Water Based Systems Layout and Special Hazards Systems Layout.
He has served on various industry boards and committees, including as a member of the NFSA Board of Directors, the CFSI National Advisory Committee, and the NFFF Advisory Committee to the Board. He currently serves on the AFSA ITM and Convention Committees, and the NFSA ITM, QA, and Training and Education Committees.
He is an active speaker at various fire protection industry conferences and seminars including those for the AFAA, AFSA, ASCET, FFLA, NFPA, and NFSA.
He is a current member of the NFPA technical committees for NFPA 13, 14, 20, 25, 72, and 915 and is a past member of the technical committees for NFPA 3, 4, 11, 13D, 13R, 15, 16, 101, 214, 303, and 5000.
He received the NFPA Committee Service Award in 2015, the NFSA Russell P. Fleming Technical Service Award in 2017, NFPA Life Membership in 2024, and the NFSA Golden Sprinkler Award in 2026.
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TO RECEIVE CREDIT FOR THIS SEMINAR, YOU MUST:
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National Fire Protection Association
The authority on fire, electrical, and building safety
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Agenda
Signs required to be inspected and the frequency of inspection.
Signs required to be retrofit.
Differences between what the installation standard requires and what NFPA 25 requires.
The purpose of each sign and who uses the information on the sign.

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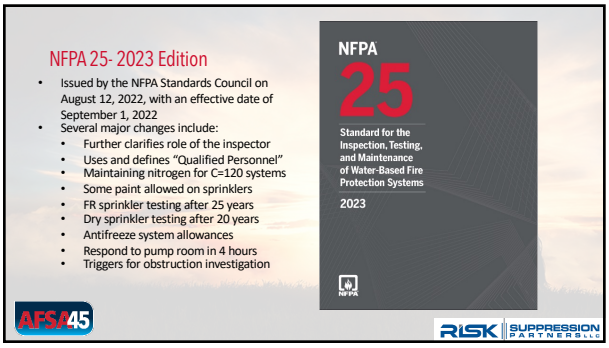
NFPA 25- 2023 Edition
Issued by the NFPA Standards Council on August 12, 2022, with an effective date of September 1, 2022
Several major changes include:
Further clarifies role of the inspector
Uses and defines "Qualified Personnel"
Maintaining nitrogen for C=120 systems
Some paint allowed on sprinklers
FR sprinkler testing after 25 years
Dry sprinkler testing after 20 years
Antifreeze system allowances
Respond to pump room in 4 hours
Triggers for obstruction investigation
NFPA
25
Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems
2023

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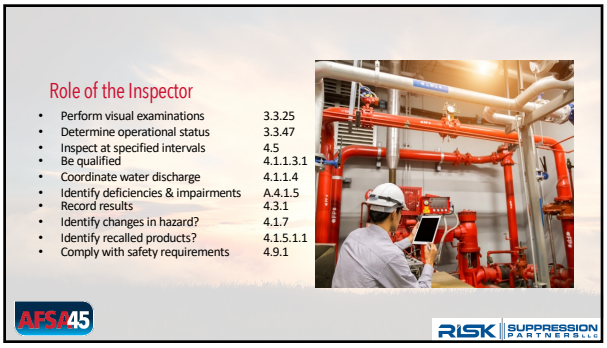
Role of the Inspector
Perform visual examinations 3.3.25
Determine operational status 3.3.47
Inspect at specified intervals 4.5
Be qualified 4.1.1.3.1
Coordinate water discharge 4.1.1.4
Identify deficiencies & impairments A.4.1.5
Record results 4.3.1
Identify changes in hazard? 4.1.7
Identify recalled products? 4.1.5.1.1
Comply with safety requirements 4.9.1

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Key Definitions

- **Inspection** - Visual examination,
  - free of damage,
  - appears in operating condition
- **Test** – Operation of a device,
  - functions correctly,
  - meets requirements (criteria)
- **Deficiency** – Adversely impacts system performance
  - **Noncritical** – no material effect but needed for compliance or ITM
  - **Critical** – can have a material effect
- **Impairment** – System is out of order. Will not function during a fire event.

Recommendations and observations are not used in NFPA 25 but should be offered by service providers.

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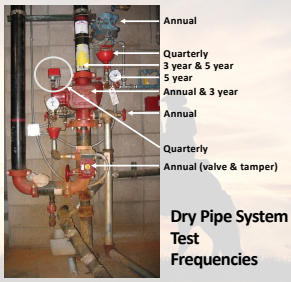
Key Definitions

- **Frequency** – Min & max time periods
  - **Daily** – within calendar day
  - **Weekly** – within a calendar week
  - **Monthly** – within a calendar month
  - **Quarterly** – four times per year
    - Min of 2 and max of 4 months
  - **Semiannual** – twice per year
    - Min of 4 and max of 8 months
  - **Annual** – once per year
    - Min of 9 and max of 15 months
  - **Three year** – once every 36 months
    - Min of 30 and max of 40 months
  - **Five year** – once every 60 months
    - Min of 54 and max of 66 months



Dry Pipe System Test Frequencies

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Control Valve Sign

The most important sign for everyone

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General Requirements

NFPA 25-2023 section 13.3

- One for each valve
- Must identify portion of building or system it controls
- If more than one valve must be closed, location of the other valve must be identified
- Inspect weekly, monthly, or quarterly with control valve
- Inspection criteria:
  - Sign is present
  - Rigid metal or plastic, properly secured, permanently marked
  - Applicable identification provided

A missing control valve sign, or one that doesn't meet the criteria, should be recorded as a non-critical deficiency.

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Who Needs The Sign's Information

Owner's Designated Representative

- System modifications
- Deficiency repairs
- Non-fire emergency
- Fire event

NFPA 25 & 72 Inspectors

- Isolation for testing
- Confirm annunciation (tampers)
- Internal pipe assessment

Sprinkler Fitter

- System modifications
- Deficiency repairs
- Non-fire emergency

Local Fire Department

- Non-fire emergency
- Fire event

Examples of improper signage from actual installations.

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General Information Sign

Provides much needed information

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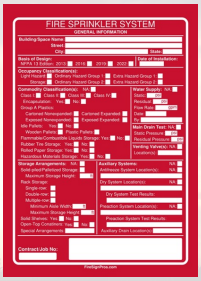
General Requirements

NFPA 13-2022 section 29.6

- One for each system
- Includes design basis for the system
- Also includes information relevant for proper ITM of the system
- Includes (21) items
- Original 2007 version included (16) items

NFPA 25-2023 section 5.2.8

- Inspect annually
- Inspection criteria:
  - Sign is present
  - Rigid metal or plastic, properly secured, permanently marked
  - Applicable identification provided



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Who Needs The Sign's Information

Owner's Designated Representative

- System modifications
- Permissible storage arrangements
- Location of auxiliary drains for dry and preaction systems
- Chemicals used in injection systems
- Nitrogen used for C value of 120

Design Consultants

- System modifications
- Flow test data
- Antifreeze & auxiliary systems, nitrogen used for C value of 120

AHJs

- NFPA 1 fire inspections
- First responders for system shut-off

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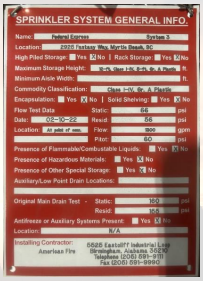
Who Needs The Sign's Information

NFPA 25 Inspectors

- Installation standard & date (sprinkler testing, general information sign)
- Flow test data (comparison)
- Presence of hazardous materials (safety)
- Vent valve location (inspect, refill)
- Auxiliary drain locations on dry & preaction
- Original main drain flow test (comparison)
- Original trip times for dry & preaction systems (comparison)
- Nitrogen used for C value of 120 (inspect for purity)



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Information Sign

A retrofit requirement

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General Requirements

NFPA 25-2008 to 2020 section 4.1.8 or 4.1.9

- One for each dry & preaction system
- One for every wet system that has an antifreeze loop or auxiliary control valve

NFPA 25-2023 section 4.1.9

- One at each system riser

NFPA 25-2023 section 5.2.7

- Inspect annually
- Verify it's provided, securely attached, & legible

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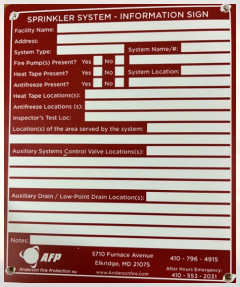
General Requirements

Construction and information provided

- Rigid metal or plastic, properly secured, permanently marked
- Information provided:
  - Area served by system
  - Location of auxiliary and low point drains for dry & preaction systems
  - Presence and location of:
    - Antifreeze systems
    - Other auxiliary systems
    - Heat tape (added in 2011)
  - Location of control valves for systems that have more than one that must be closed to work on the system (added in 2023)



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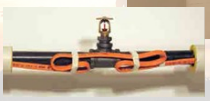
Who Needs The Sign's Information

Owner's Designated Representative
- Area of the building system covers
- Location of auxiliary drains for dry and preaction systems
- Location of special systems & heat tape

NFPA 25 & 72 Inspectors
- Isolation for testing
- Confirm annunciation (tampers)
- Auxiliary drain locations on dry & preaction
- Location of other systems that need inspection and testing

AHJs
- NFPA 1 fire inspections
- First responders for system shut-off



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Hydraulic Design Information Sign

Every system must have one

21

General Requirements

NFPA 13-2022 section 29.4
- One for each system – even for pipe schedule
- Includes
  - Design area & basis for hydraulic calculations
  - Required GPM & PSI at base of riser
  - Hose stream allowance included
  - Occupancy and max storage height
  - Installing contractor name

NFPA 25-2023 section 5.2.5
- Inspect annually
- Inspection criteria:
  - Sign is present – even for pipe schedule
  - Rigid metal or plastic, properly secured, permanently marked
  - Information is legible

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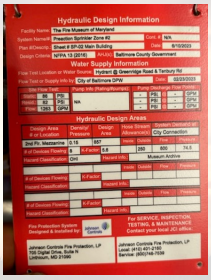
Who Needs The Sign's Information

Owner's Designated Representative
- Hydraulic data for system modifications
- Permissible storage arrangements

Design Consultants
- Hydraulic data for system modifications
- Base of riser demand & hose allowance

AHJs
- Permissible storage arrangements

NFPA 25 Inspectors and Sprinkler Fitters
- No need for this information!!!!!



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Auxiliary Drain Valve Sign

For both dry and preaction systems

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General Requirements

NFPA 13-2022 section 16.10.5.3.7
- For systems having low point drains
- Indicates number of low point drains
- Describes locations

NFPA 25-2023 sections 13.4.3.1.4 & 13.4.5.1.1
- For systems having low point drains
- No frequency provided
- Inspection criteria:
  - Sign is present
  - No materials for the sign provided
  - Indicates number of low point drains
  - Describes locations

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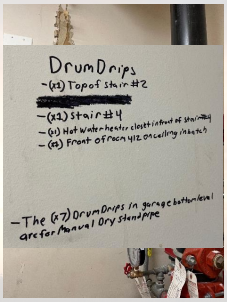
Who Needs The Sign's Information

Owner's Designated Representative
- For maintenance of dry and preaction systems with auxiliary drains
- Provides number of auxiliary drains
- Provides location of auxiliary drains

NFPA 25 Inspectors and Sprinkler Fitters
- For servicing of dry and preaction systems with auxiliary drains after testing or repairs and during quarterly inspections
- Provides number of auxiliary drains
- Provides location of auxiliary drains



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Antifreeze Information Sign

Critical information for testing

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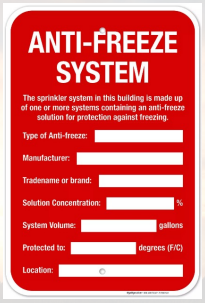
General Requirements

NFPA 13-2022 sections 8.6.1.4 and 8.6.1.5
- One on system riser with remote antifreeze system
- One on each antifreeze system (loop)
- Must include:
  - Manufacturer type and brand
  - Minimum use temperature
  - Volume of antifreeze solution in the system

NFPA 25-2023 sections 4.1.10 and 5.2.9
- Inspect annually
- Inspection criteria:
  - Sign is present
  - Rigid metal or plastic, properly secured, permanently marked
  - Applicable identification provided



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Who Needs The Sign's Information

Owner's Designated Representative
- For maintenance of the antifreeze system
- For knowledge of the level of freezing temperature the system will withstand

NFPA 25 Inspectors and Sprinkler Fitters
- For annual testing criteria
- For refilling the system with a listed antifreeze solution

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Fire Department Connection Sign

Critical information for first responders

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General Requirements

NFPA 13-2022 section 16.12.5.8.1
- Each FDC must have one
- 1" raised letters on a plate or fitting (head)
- Includes type of system it serves
- Additional sign when system demand requires 150 psi or greater

NFPA 25-2023 section 13.8.1
- Inspect quarterly
- Identification signs are in place

Who Needs The Sign's Information

- For exclusive use by the responding fire department

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Other Signs in NFPA 25

Other miscellaneous signs

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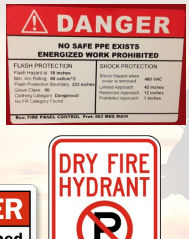
General Requirements

- System Design Information sign required by NFPA 750 13.4.4 (see enhanced content to 12.4.1.2 in NFPA 25.)
- Confined Space Entry sign required by OSHA (4.9.2)
- PPE sign on electric fire pump controllers (14.2.3.2 in NFPA 20)
- Dry Fire Hydrant signage (7.2.2.6.3)



(No Design Information Sign example found)

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Key Take-Aways

What have you learned?

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What Have You Learned?

- Inspecting for proper signage is required by NFPA 25.
- Most installers neglect to install proper signage required by NFPA 13 & 14.
- NFPA 25 inspectors aren't required to verify the accuracy of the information on the sign, just that the sign and the information are present.
- Missing signage can lead to water damage from wrong valves being shut when performing service work and frozen auxiliary drains among other causes.

Protect your company from claims by inspecting for proper signage on every water-based fire protection system.

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Questions

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REQUIRED

FOR CEU CREDIT:

- ✓ Badge scanned at start of seminar
- ✓ Attend full seminar
- ✓ Complete survey 1 of 2 ways:
  - ✓ Survey link is emailed to attendees with scanned badges
  - ✓ Event app by EventsAir
    - Login to app
    - Navigate to seminar survey
  - ✓ Surveys close 10/31/26

Thank you!

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Scan QR code to submit questions for **Ask the Experts!**

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2027 Training Schedule

WEBINARS

1/6	Updates to NFPA 20
1/20	Calculating Pressure Reducing Hose Valves
2/3	Consumer Alert: Nitrogen in Sprinkler Systems
2/17	Reviewing Hydraulic Calculations
3/3	Updates to NFPA 13, 2028 Ed.
3/17	Updates to NFPA 13R & 13D, 2028 Eds.
4/7	Topic Coming Soon
4/21	NFPA 25: Roles & Responsibilities
5/5	Standpipe Flow Test Procedures
5/19	Storage 101
6/2	NFPA Technical Meeting - Voting Guide
6/16	Topic Coming Soon
6/30	Topic Coming Soon
7/7	Updates to NFPA 14, 2027 Edition
7/21	Adjacent Hazards & Design Methods
8/4	Acceptance Testing
8/18	Modifications to Existing Systems
9/22	Topic Coming Soon
10/6	Seismic 101
10/20	Proposed Updates to NFPA 25, 2029 Ed.
11/3	Evaluating Fire Pump Flow Tests
11/17	Top 10 Tech Reviews
12/1	Designing Water Storage Tanks
12/15	Pump Room Layout

PROGRAMS

Feb 9 - Mar 5 Apr 20 - May 14 Aug 3 - Aug 27** Oct 26 - Nov 19	Beginning Design School*
Apr 26 - May 7 Nov 1 - 12	Intermediate Design School*
Feb 8 - 10** Apr 12 - 14 Jul 12 - 14 Oct 11 - 13	Sprinkler Hydraulics Calculations Workshop
Apr 19 - 21 Oct 18 - 20	Advanced Hydraulics Calculations Workshop
Feb 11** Apr 30 Jul 23 Sep 24	Introduction to the Fire Sprinkler Industry
Mar 1 - 3 May 17 - 19 Aug 16 - 18 Oct 18 - 20**	NFPA 25 Essentials Workshop
Jun 7 - 10 Sep 20 - 23	Experienced Inspector Skills Lab
Mar 4 - 5 May 20 - 21 Aug 19 - 20 Oct 21 - 22**	NFPA 25 Fire Pump Workshop
Spring Summer Fall	ITM Inspector Development Program* *This program is 20 months.*

** Hybrid course **At General Air Products Lab, Exton, PA*

AFSA46

September 8-11	Manchester Grand Hyatt San Diego, CA

For More Details Visit:
firesprinkler.org

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Dates subject to change. Programs subject to minimum registrations.

rev 9/14/2026

Virtual Instruction Path (VIP)

for Sprinkler Fitting Apprentices

Level 1 - Begins January 2027

Level 2 - Begins February 2027

Level 3 - Begins January 2027

Level 4 - Begins March 2027

www.firesprinkler.org/VIP

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HANDS-ON WORKSHOPS FOR 2027

FEATURING AFSA'S TRAINING LAB

NFPA 25 Essentials Workshop

Mar | May | Aug | Oct

Description: Understand roles, responsibilities, and NFPA 25 ITM procedures through hands-on testing of wet systems, dry systems, and fire pumps.

NFPA 25 Fire Pump Workshop

Mar | May | Aug | Oct

Description: Develop practical NFPA 25 fire pump ITM skills, including no-flow and full-flow testing, water supply graphing, and performance evaluation.

Introduction to the Fire Sprinkler Industry

Feb | Apr | Jul | Sep

Description: This course is designed for those new to the industry. An introductory, wide-ranging 8-hour course that provides a broad overview of core fire sprinkler industry concepts for those new to the field.

Experienced Inspector Skills Lab NEW

Mar | Sep

Description: Take your ITM expertise beyond the basics. Designed for experienced technicians, this course combines focused classroom instruction with hands-on system lab training to strengthen your application of current NFPA 25 inspection, testing, and maintenance requirements. Refine fire sprinkler testing practices, improve documentation, deliver more consistent service, and help reduce liability while reinforcing knowledge commonly covered on certification exams.

Learn more about AFSA's fire sprinkler lab featuring functional risers, a spray room, fire pumps, and an interactive classroom.

firesprinkler.org/lab