Hydraulic Placards and General Information Signs

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Course Details

- This course will educate on the requirements, purposes, and importance of hydraulic placards and general information signs for fire sprinkler systems. The requirements for these signs have changed considerably in the newer editions of NFPA 13 without industry awareness so not knowing this information limits your ability to meet the requirements of NFPA 13, NFPA 25, and NFPA 1. The absence of these signs (or presence of incorrect signs) leave installation contractors, ITM contractors, AHJs, building owners, leasing agents, tenants, and insurance companies empty-handed when looking for basic fire sprinkler system information onsite. This missing information causes disconnects between project stakeholders, which can ultimately impact the fire sprinkler system providing an adequate level of protection.

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Learning Objectives:

- Identify the requirements of hydraulic placards and general information signs in NFPA 13 and NFPA 25 and explain the purpose of the information provided on the signs.
- Explain how to create hydraulic placards & general information signs for both new fire sprinkler systems and existing fire sprinkler systems.
- Discuss the importance of hydraulic placards and general information signs as they pertain to the NFPA 1 requirements for the evaluation of the fire protection systems prior to changes in occupancy, use, process, or materials.

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Who Loses When Signs are Missing?

- Building Owner 1
  - Architect/Engineering Team
  - General Contractor
    - Fire Sprinkler Contractor
- Building Owner 2
  - Insurance Company
  - Property Manager
    - ITM Fire Sprinkler Contractor
  - Leasing Agent
  - Tenant
    - Insurance Company
    - Architect/Engineering Team
    - General Contractor
      - Fire Sprinkler Contractor

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Why Not NFPA 13D & NFPA 13R?

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Current Requirements for Signage NFPA 13D, 2025

- 1) 6.3.4* Multipurpose Piping System (Warning sign)
- 2) 9.2.5* Antifreeze Systems Placard (Type, brand, concentration, and volume)
- 3) 12.3.5.1.4 Antifreeze Tag (Testing Data)

- Need to provide instructions for inspecting, testing, and maintaining the system per 12.1*

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Current Requirements for Signage NFPA 13R, 2025

- 1) 5.2.14.4* Identification of Valves.
- 2) 6.11 Fire Department Connection.
- 3) 11.1.7 A list of the sprinklers installed posted in the sprinkler cabinet.

- Need to provide contractor's material and test certificate(s) to AHJ per 10.1

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Current Requirements for Signage NFPA 13, 2025

Table A.16.17 Sprinkler System Signage Summary

Section	Sign Location	Sign Information/Requirements
16.9.11	Control valves	Identification sign
	Drain valves	Sign must be made of weatherproof metal or rigid plastic and attached with corrosion-resistant wire or chain
	Test connection valves	
8.6.1.4 and 8.6.1.5	Antifreeze system main valve	Indicate the following:
		- Antifreeze manufacturer
		- Antifreeze type
		- Antifreeze concentration
16.9.2.5	Control valves	Indicate valve function
		Indicate system being controlled
16.10.5.3.7	Dry valve	Number of low point drains
	Preaction valve	Location of each drain
16.12.5.6	Fire department connections not serving the whole building	Indicate portion of the building served by the fire department connection
16.12.7.8	All fire department connections	Indicate systems served by the fire department connection
		Indicate system pressure demand [for systems requiring more than 150 psi (10 bar)]
		Letters must be 1 in. (25 mm) in height
29.4	Alarm valve	Indicate the following:
	Dry pipe valve	- Location of the design area or areas
	Preaction valve	- Size (area) of or number of sprinklers in the design area
	Deluge valve	- Discharge densities over the design area or areas
		- Required flow and residual pressure demand at the base of the riser
		- Occupancy classification or commodity classification and maximum permitted storage height and configuration
		- Hose stream allowance
		- The installing contractor
		- Sign must be made of weatherproof metal or rigid plastic and attached with corrosion-resistant wire or chain

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Current Requirements for Signage NFPA 13, 2025

Table A.16.17 Sprinkler System Signage Summary

Section	Sign Location	Sign Information/Requirements
29.6	System control riser	Indicate the following:
	Antifreeze loops	- Name and location of the facility protected
	Auxiliary systems	- Occupancy classification
	Control valves	- Commodity classification
		- Presence of high-piled and/or rack storage
		- Maximum height of storage planned
		- Aisle width planned
		- Encapsulation of pallet loads
		- Presence of solid shelving
		- Flow test data
		- Presence of flammable/combustible liquids
		- Presence of hazardous materials
		- Presence of other special storage
		- Location of venting valve
		- Location of auxiliary drains and low point drains on dry pipe and preaction systems
		- Sign must be made of weatherproof metal or rigid plastic and attached with corrosion-resistant wire or chain
11.2.7.5	Fire department connection (FDC)	18 in. × 18 in. (450 mm × 450 mm) sign
		FDC symbol from NFPA 170
A.16.11.2	Central station, auxiliary, remote station, or proprietary protective signaling systems	Located at connection in plain sight from shore access point
		Recommended:
		Located near the device
		Direct people to call police or fire department when bell rings

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Purpose

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Purpose

- NFPA 1, 2027 Fire Code

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Purpose

- NFPA 13, 2025 Standard for the Installation of Sprinkler Systems

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Purpose

- NFPA 25, 2026 Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems

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Do ESFR sprinklers provide a reasonable degree of protection for life and property from fire?

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Why Signage Matters

- 1) To provide a reasonable degree of protection for life and property from fire
- 2) Closed Valves
  - System Impairment
  - Water Damage
- 3) Manage Changes in Occupancy, Use, Process, Materials, or Hazards

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Brief History of Fire Sprinkler Systems

- Heat Actuated Sprinklers Invented 1870's
- Pipe Schedule Systems (1896, 1905, 1940, 1953)
  - Old-Style/Conventional Sprinklers 1870's-1953
  - Standard Spray Sprinklers 1955-Present

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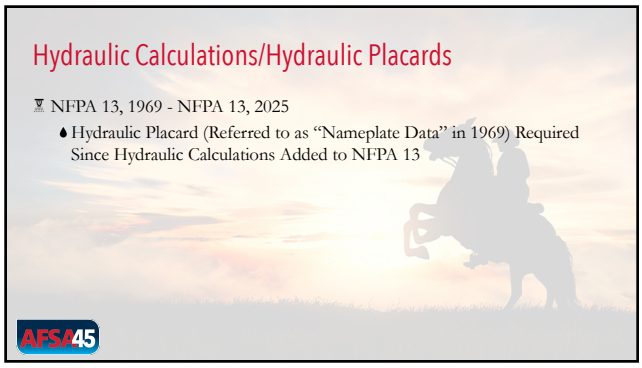

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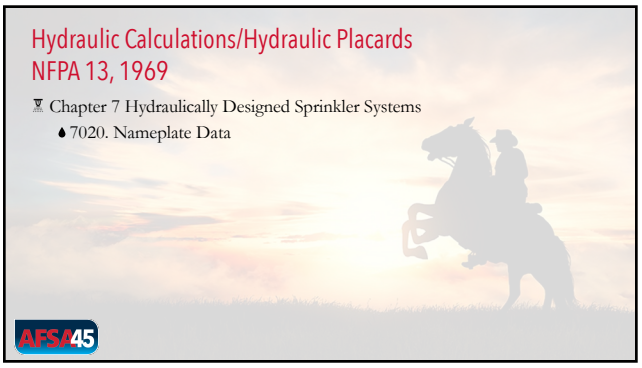

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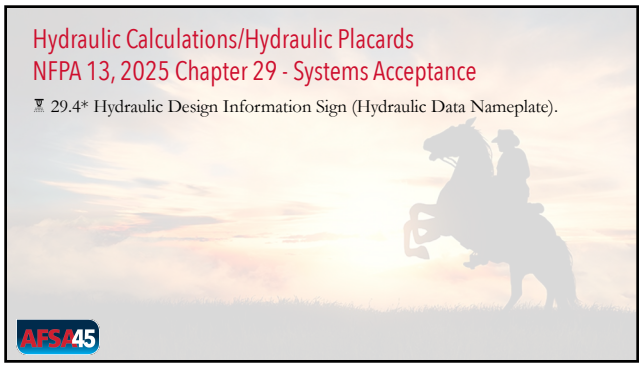

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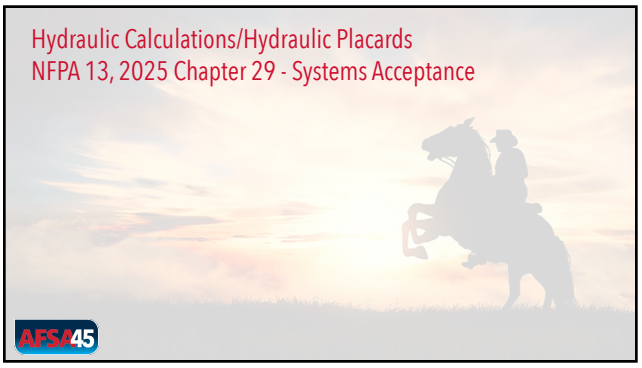

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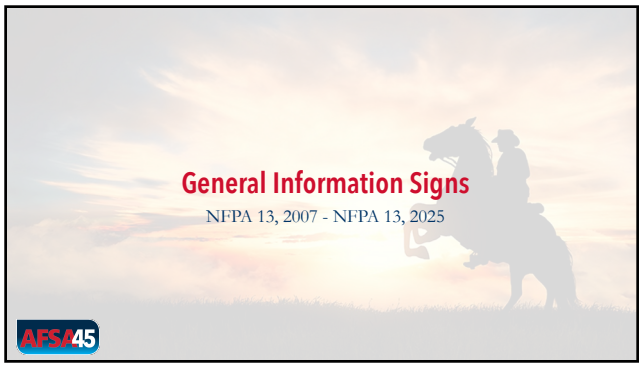

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General Information Signs
NFPA 13, 2007 Chapter 24 - Systems Acceptance

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General Information Signs
NFPA 13, 2025 Chapter 29 - Systems Acceptance

- 29.6* General Information Sign.

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General Information Signs
NFPA 13, 2025 Chapter 29 - Systems Acceptance

- 29.6.2 The sign shall include the following information:

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Pipe Schedule Design Information Sign
NFPA 13, 2022 - NFPA 13, 2025

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Pipe Schedule Design Information Sign
NFPA 13, 2025 Chapter 29 - Systems Acceptance

- 29.5 Pipe Schedule Design Information Sign (Nameplate).

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Pipe Schedule Design Information Sign
NFPA 25, 2026 Chapter 5 - Sprinkler Systems

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NFPA 25

- NFPA 25, 1992 - NFPA 25, 2026

Edition	Hydraulic Placard/Nameplate	Pipe Schedule Design Information Sign	General Information Sign	Information Sign	Antifreeze Information Sign
1992	2-2.7	-	-	-	-
1998	2-2.7	-	-	-	-
2002	5.2.7	-	-	-	-
2008	5.2.7	-	-	-	-
2011	5.2.6	-	-	5.2.8	-
2014	5.2.6	5.2.9	-	5.2.8	-
2017	5.2.5.1	5.2.5.2	5.2.8	5.2.7	5.2.9
2020	5.2.5.1	5.2.5.2	5.2.8	5.2.7	5.2.9
2023	5.2.5.1	5.2.5.2	5.2.8	5.2.7	5.2.9
2026	5.2.5.1	5.2.5.2	5.2.7.1	5.2.7.3	5.2.8

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NFPA 1, 2027

Edition	Hydraulic Placard/Nameplate	Pipe Schedule Design Information Sign	General Information Sign	Information Sign	Antifreeze Information Sign
2027	13.3.3.4.1.11.1	13.3.3.4.1.11.2	-	13.3.3.4.1.10	13.3.3.4.12

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Creating Signs

- New Systems
  - New System in a New Building
  - New System in an Existing Building
- Existing Systems
  - Existing System Modification
  - Existing System Evaluation

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New Systems

- Water Supply
- System Type
- Fire Approach
- Discharge Criteria
- System Layout
- Hydraulic Calculations
- Approvals
- Signage

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Existing Systems

- Water Supply
- System Type
- Fire Approach
- Discharge Criteria
- System Layout
- Hydraulic Calculations
- Approvals
- Signage

- Architectural/Structural Layout
- Survey System Type
- Reverse Engineer Fire Approach
- Reverse Engineer Discharge Criteria
- Survey and Redraw System Layout
- Hydraulic Calculations
- Approvals?
- Signage

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Hydraulic Calculations/Hydraulic Placards
NFPA 13, 2025 Chapter 29 - Systems Acceptance

- (1)Location of the design area or areas
- (2)Size (area) of or number of sprinklers in the design area
- (3)Discharge densities over the design area or areas
- (4)Required flow and residual pressure demand at the base of the riser or fire pump where applicable
- (5)Occupancy classification or commodity classification and maximum permitted storage height and configuration
- (6)Hose stream allowance included in addition to the sprinkler demand
- (7)Name of the installing contractor

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Hydraulic Calculations/Hydraulic Placards
NFPA 13, 2025 Chapter 29 - Systems Acceptance

- (7)Name of the installing contractor
- (5)Occupancy classification or commodity classification and maximum permitted storage height and configuration
- (6)Hose stream allowance included in addition to the sprinkler demand
- (1)Location of the design area or areas
- (2)Size (area) of or number of sprinklers in the design area
- (3)Discharge densities over the design area or areas
- (4)Required flow and residual pressure demand at the base of the riser or fire pump where applicable

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General Information Signs
NFPA 13, 2025 Chapter 29 - Systems Acceptance

- (1)Name and location of the facility protected
- (2)Edition of NFPA 13
- (3)Occupancy classification
- (4)Commodity classification
- (5)Presence of high-piled and/or rack storage
- (6)Maximum height of storage planned
- (7)Aisle width planned
- (8)Encapsulation of pallet loads
- (9)Presence of solid shelving
- (10)Flow test data
- (11)Presence of flammable/combustible liquids
- (12)Presence of hazardous materials
- (13)Presence of other special storage
- (14) Location of venting valve
- (15)Location of auxiliary drains and low point drains on dry pipe and preaction systems
- (16)Original results of main drain flow test
- (17)Original results of dry pipe and double interlock preaction valve test
- (18)Name of installing contractor or designer
- (19)Indication of presence and location of antifreeze or other auxiliary systems
- (20)Where injection systems are installed to treat MIC or corrosion, the type of chemical, concentration of the chemical, and where information can be found as to the proper disposal of the chemical
- (21)Indication of presence of nitrogen where used to allow for increased C value in dry or preaction systems

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General Information Signs
NFPA 13, 2025 Chapter 29 - Systems Acceptance

- (18)Name of installing contractor or designer
- (1)Name and location of the facility protected
- (2)Edition of NFPA 13
- Non-storage
  - (3)Occupancy classification
- Storage
  - (4)Commodity classification
  - (5)Presence of high-piled and/or rack storage
  - (6)Maximum height of storage planned
  - (7)Aisle width planned
  - (8)Encapsulation of pallet loads
  - (9)Presence of solid shelving
  - (11)Presence of flammable/combustible liquids
  - (12)Presence of hazardous materials
  - (13)Presence of other special storage

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General Information Signs
NFPA 13, 2025 Chapter 29 - Systems Acceptance

- (10)Flow test data
- (16)Original results of main drain flow test
- (20)Where injection systems are installed to treat MIC or corrosion, the type of chemical, concentration of the chemical, and where information can be found as to the proper disposal of the chemical
- Wet Systems
  - (14) Location of venting valve
  - (19)Indication of presence and location of antifreeze or other auxiliary systems
- Dry and/or Preaction Systems
  - (15)Location of auxiliary drains and low point drains on dry pipe and preaction systems
  - (17)Original results of dry pipe and double interlock preaction valve test
  - (21)Indication of presence of nitrogen where used to allow for increased C value in dry or preaction systems

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Combination Signs
NFPA 13, 2025 Chapter 29 - Systems Acceptance

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COMBINATION FIRE SPRINKLER SIGN

ADDRESS:
PROJECT:
REMOTE AREA LOCATION:

DATE OF PLACARD INSTALLATION:
ORIGINAL TO INSTALLATION: YES ☐ NO ☐
NFPA 13 EDITION:

HYDRAULIC DESIGN INFORMATION

NO. OF SPRINKLERS FLOWING:
DESIGNED AREA OF DISCHARGE: FT²
DESIGN APPROACH:
DENSITY: GPM/FT²
MIN. OPERATING PRESSURE: PSI
K-FACTOR: ORIENTATION:
SPRINKLER SPACING: FT²
HOSE STREAM ALLOWANCE: GPM / OUTSIDE ☐ INSIDE ☐
REQUIRED FLOW AT B.O.R.: GPM
RESIDUAL PRESSURE AT B.O.R.: PSI
SAFETY FACTOR: PSI / %

FLOW TEST DATA:
STATIC: PSI RESIDUAL: PSI
FLOW: GPM DATE:
LOCATION:
TANK: YES ☐ NO ☐ VOLUME:

FIRE PUMP PRESENT: YES ☐ NO ☐
TYPE: ELECTRIC ☐ DIESEL ☐
RATED GPM:
RATED PSI:
PRV SET PRESSURE:

GENERAL INFORMATION

SIZE OF SYSTEM PROTECTION AREA: FT²

NON-STORAGE:
OCCUPANCY CLASSIFICATION: (Double)

STORAGE:
HIGH PILED PER CHAPTER 3: YES ☐ NO ☐
COMMODITY CLASSIFICATION: (Double)
PALLET TYPE:
METHOD(S) OF STORAGE:
MAX. STORAGE HEIGHT: (Double) MAX BUILDING HEIGHT:
AISLE WIDTH: MIN DEFLECTOR CLEARANCE:
ENCAPSULATION: YES ☐ NO ☐
SOLID SHELVING: YES ☐ NO ☐
IN-RACK SYSTEM: YES ☐ NO ☐
IN-RACK BALANCED WITH ROOF: YES ☐ NO ☐
IDLE PALLET STORAGE: YES ☐ NO ☐ TYPE:
METHOD(S) OF STORAGE:
FLAMMABLE/COMBUSTIBLE LIQUIDS: YES ☐ NO ☐
HAZARDOUS MATERIALS: YES ☐ NO ☐
OTHER SPECIAL STORAGE:
STORAGE NOTES:

GENERAL ITM DATA:
ORIGINAL MAIN DRAIN TEST (PUMP OFF):
STATIC: PSI RESIDUAL: PSI
WET SYSTEM ITM DATA:
VENTING VALVE LOCATION & TYPE:
DRY/ANTIFREEZE/OTHER AUXILIARY SYSTEM PRESENT: YES ☐ NO ☐
LOCATION:
DRY / PREACTION SYSTEM ITM DATA:
LOCATION OF AUXILOW POINT DRAINS:

DRY PIPE/DOUBLE INTERLOCK PREACTION VALVE TEST RESULTS: SECONDS
SYSTEM VOLUME:
QUICK OPENING DEVICE: YES ☐ NO ☐
FLUID DELIVERY TIME CALCULATIONS: YES ☐ NO ☐
TIME THROUGH TEST CONNECTION: SECONDS
SYSTEM AIR PRESSURE: PSI
STANDPIPE DATA:
COMBINATION SYSTEM: YES ☐ NO ☐
CLASS:
OTHER NOTES:

WHERE INJECTION SYSTEMS ARE USED TO TREAT MIC OR CORROSION:
TYPE OF CHEMICAL: CONCENTRATION:
FOR PROPER DISPOSAL:
PRESENCE OF NITROGEN: YES ☐ NO ☐ WAS C-VALUE OF 120 USED IN DESIGN: YES ☐ NO ☐

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COMBINATION FIRE SPRINKLER SIGN

ADDRESS:
PROJECT:
REMOTE AREA LOCATION:

DATE OF PLACARD INSTALLATION:
ORIGINAL TO INSTALLATION: YES ☐ NO ☐
NFPA 13 EDITION:

HYDRAULIC DESIGN INFORMATION

NO. OF SPRINKLERS FLOWING:
DESIGNED AREA OF DISCHARGE: FT²
DESIGN APPROACH:
DENSITY: GPM/FT²
MIN. OPERATING PRESSURE: PSI
K-FACTOR: ORIENTATION:
SPRINKLER SPACING: FT²
HOSE STREAM ALLOWANCE: GPM / OUTSIDE ☐ INSIDE ☐
REQUIRED FLOW AT B.O.R.: GPM
RESIDUAL PRESSURE AT B.O.R.: PSI
SAFETY FACTOR: PSI / %

FLOW TEST DATA:
STATIC: PSI RESIDUAL: PSI
FLOW: GPM DATE:
LOCATION:
TANK: YES ☐ NO ☐ VOLUME:

FIRE PUMP PRESENT: YES ☐ NO ☐
TYPE: ELECTRIC ☐ DIESEL ☐
RATED GPM:
RATED PSI:
PRV SET PRESSURE:

GENERAL INFORMATION

SIZE OF SYSTEM PROTECTION AREA: FT²

NON-STORAGE:
OCCUPANCY CLASSIFICATION: (Double)

STORAGE:
HIGH PILED PER CHAPTER 3: YES ☐ NO ☐
COMMODITY CLASSIFICATION: (Double)
PALLET TYPE:
METHOD(S) OF STORAGE:
MAX. STORAGE HEIGHT: (Double) MAX BUILDING HEIGHT:
AISLE WIDTH: MIN DEFLECTOR CLEARANCE:
ENCAPSULATION: YES ☐ NO ☐
SOLID SHELVING: YES ☐ NO ☐
IN-RACK SYSTEM: YES ☐ NO ☐
IN-RACK BALANCED WITH ROOF: YES ☐ NO ☐
IDLE PALLET STORAGE: YES ☐ NO ☐ TYPE:
METHOD(S) OF STORAGE:
FLAMMABLE/COMBUSTIBLE LIQUIDS: YES ☐ NO ☐
HAZARDOUS MATERIALS: YES ☐ NO ☐
OTHER SPECIAL STORAGE:
STORAGE NOTES:

GENERAL ITM DATA:
ORIGINAL MAIN DRAIN TEST (PUMP OFF):
STATIC: PSI RESIDUAL: PSI
WET SYSTEM ITM DATA:
VENTING VALVE LOCATION & TYPE:
DRY/ANTIFREEZE/OTHER AUXILIARY SYSTEM PRESENT: YES ☐ NO ☐
LOCATION:
DRY / PREACTION SYSTEM ITM DATA:
LOCATION OF AUXILOW POINT DRAINS:

DRY PIPE/DOUBLE INTERLOCK PREACTION VALVE TEST RESULTS: SECONDS
SYSTEM VOLUME:
QUICK OPENING DEVICE: YES ☐ NO ☐
FLUID DELIVERY TIME CALCULATIONS: YES ☐ NO ☐
TIME THROUGH TEST CONNECTION: SECONDS
SYSTEM AIR PRESSURE: PSI
STANDPIPE DATA:
COMBINATION SYSTEM: YES ☐ NO ☐
CLASS:
OTHER NOTES:

WHERE INJECTION SYSTEMS ARE USED TO TREAT MIC OR CORROSION:
TYPE OF CHEMICAL: CONCENTRATION:
FOR PROPER DISPOSAL:
PRESENCE OF NITROGEN: YES ☐ NO ☐ WAS C-VALUE OF 120 USED IN DESIGN: YES ☐ NO ☐

- Red = Hydraulic Placard
- Blue = General Information

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Pallets

- Chapter 20 General Requirements for Storage → 20.3* Classification of Commodities.

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Pallets

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Pallets

- Idle Plastic Pallets https://www.youtube.com/watch?v=1uXhOUQRWGk

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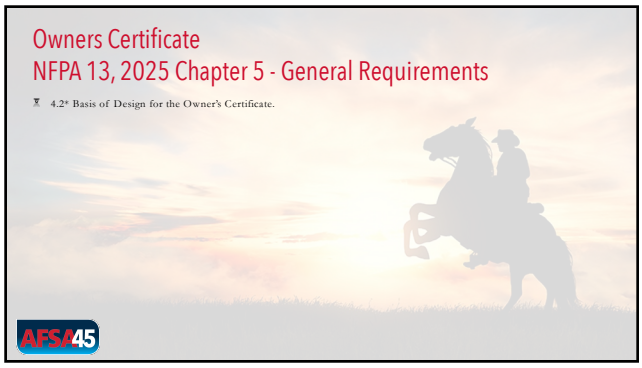

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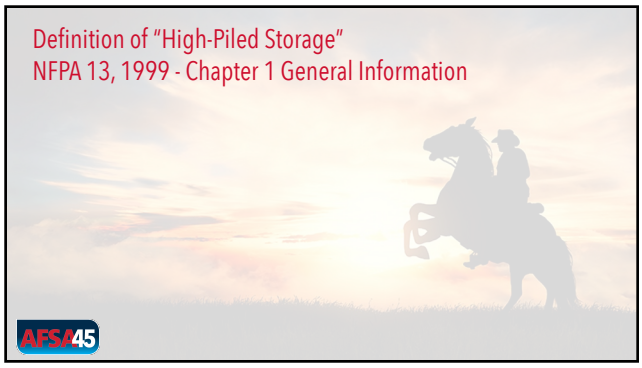

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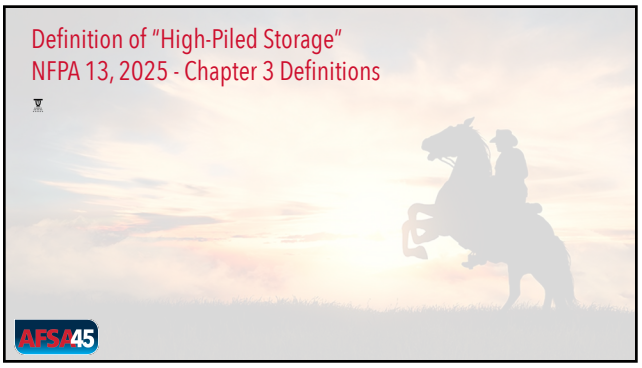

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NFPA 1, 2027 Fire Code

- Chapter 13 - Fire Protection Systems
  - 13.3 Sprinkler Systems.
    - 13.3.3 Inspections, Testing, and Maintenance
      - 13.3.3.4 General Requirements
        - 13.3.3.4.1 Responsibility of the Property Owner or Designated Representative
          - 13.3.3.4.1.7 Changes in Occupancy Use, Process, or Materials

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Changes in Occupancy Use, Process, or Materials NFPA 1, 2027

- 13.3.3.4.1.7* Changes in Occupancy, Use, Process, or Materials.

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Changes in Occupancy Use, Process, or Materials NFPA 1, 2027

- 13.3.3.4.1.7.2* The evaluation shall consider factors that include, but are not limited to, the following:

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Changes in Occupancy Use, Process, or Materials NFPA 1, 2027

- 13.3.3.4.1.8* Addressing Changes in Hazard.

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Changes in Occupancy Use, Process, or Materials NFPA 1, 2027

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Changes in Occupancy Use, Process, or Materials NFPA 25, 2026 Chapter 4 - General Requirements

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Changes in Occupancy Use, Process, or Materials
NFPA 25, 2026 Chapter 4 - General Requirements

- 4.1.7.2* The evaluation shall consider factors that include, but are not limited to, the following:

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Changes in Occupancy Use, Process, or Materials
NFPA 25, 2026 Chapter 4 - General Requirements

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Changes in Occupancy Use, Process, or Materials
NFPA 25, 2026 Chapter 4 - General Requirements

- 4.1.7.1 NFPA Insight

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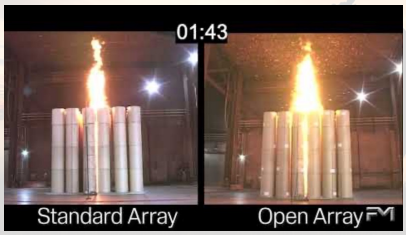
Changes in Occupancy Use, Process, or Materials
The Details Matter

- Rolled Paper Storage https://www.youtube.com/watch?v=EPabRtnhM24



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Industry Innovation

- Pipe Scheduled Fire Sprinkler Systems Using Old Style (Conventional) Sprinklers
  - 1896-1953
- Pipe Scheduled Fire Sprinkler Systems Using Standard Spray Sprinklers
  - 1955-1966

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Industry Innovation

NFPA 13 Edition	Hydraulic Calculations	Hydraulic Placard	General Information Sign	Document Cabinet W/ Drawings	Notes
1896	Yes	Yes	N.R.	N.R.	4.2.6
1912					4.6.6
1914					4.6.6
1916					4.5.6
1975	Yes	Yes	N.R.	N.R.	Gridded Systems 4.6.6 4.6
1976					4.2.6 4.6
1978	Yes	Yes	N.R.	N.R.	4.5.6 4.6
1980					4.5.6 4.6
1983					4.5.6 4.6
1985					4.5.6 4.6 4.11.2 Large Drop
1987					4.5.6 4.6 4.11.2 Large Drop
1989					4.14 ESFR
1991	Yes	Yes	N.R.	N.R.	4.14 ESFR
1994	Yes	Yes	N.R.	N.R.	4.14 ESFR
1996	Yes	Yes	N.R.	N.R.	4.14 ESFR
1999	Yes	Yes	N.R.	N.R.	4.14 ESFR -SIN Numbers 01-01-01
2002	Yes	Yes	N.R.	N.R.	4.14 ESFR 4.14.8 ESFR

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Industry Innovation

NFPA 13 Edition	Hydraulic Calculations	Hydraulic Placard	General Information Sign	Document Cabinet W/ Drawings	Notes
2007	Yes	Yes	Yes	No	K-14 ESFR K-16.8 ESFR
2010	Yes	Yes	Yes	No	K-14 ESFR K-16.8 ESFR K-22.4 ESFR K-25.2 ESFR
2013	Yes	Yes	Yes	No	Changes for Ceilings Over 35'-0 " K-14 ESFR K-16.8 ESFR K-22.4 ESFR K-25.2 ESFR
2016	Yes	Yes	Yes	No	K-14 ESFR K-16.8 ESFR K-22.4 ESFR K-25.2 ESFR
2019	Yes	Yes	Yes	No	K-14 ESFR K-16.8 ESFR K-22.4 ESFR K-25.2 ESFR
2022	Yes	Yes	Yes	No	Changes for Ceilings Over 35'-0 " K-14 ESFR K-16.8 ESFR K-22.4 ESFR K-25.2 ESFR
2025	Yes	Yes	Yes	Yes	Changes for Ceilings Over 35'-0 " K-14 ESFR K-16.8 ESFR K-22.4 ESFR K-25.2 ESFR

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NFPA 13, 2025 Documentation Cabinet
Chapter 16 - Installation of Piping, Valves, and Appurtenances

- 16.11.1.3 Documentation Cabinet.

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NFPA 13, 2025 Documentation Cabinet
Chapter 16 - Installation of Piping, Valves, and Appurtenances

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Drawings & Signs Need To Be "SIMPLE"

- Specific
- Intentional
- Marketable
- Purposeful
- Less "One Size Fits All"
- Easy to Understand The System Design

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Fire Sprinkler Systems

- Antifreeze Sprinkler System
- Deluge Sprinkler System
- Dry Pipe Sprinkler System
- Preaction Sprinkler System
- **Wet Pipe Sprinkler System**

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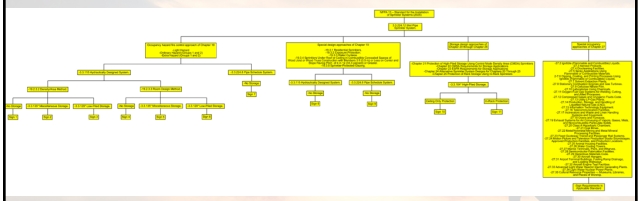
Understanding The System Design



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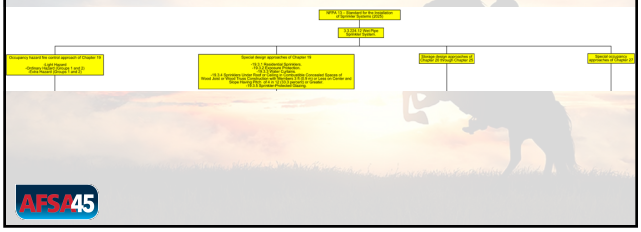
Standard/System Type/Design Approach



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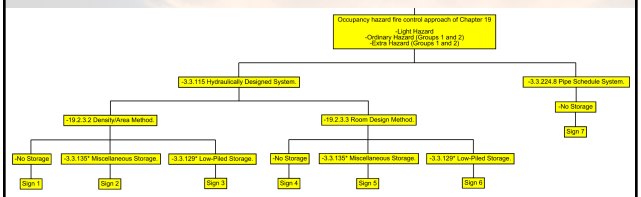
Occupancy Hazard Fire Control Approach



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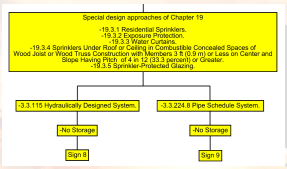
Special Design Approaches



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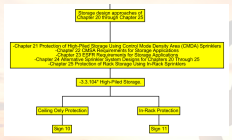
High-Piled Storage



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Special Occupancies

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Sign Format

- Fire Sprinkler System Sign
  - General Information
  - Engineering Information
  - Inspections, Testing, and Maintenance Information

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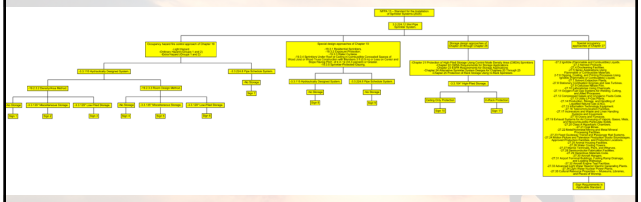
1 Sign Fits All?



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Wet System Sign 1 Example

- NFPA 13 – Standard for the Installation of Sprinkler Systems (2025)
  - 3.3.224.12 Wet Pipe Sprinkler System.
    - Occupancy hazard fire control approach of Chapter 19
      - 3.3.115 Hydraulically Designed System.
        - 19.2.3.2 Density/Area Method.
          - No Storage
            - Sign 1

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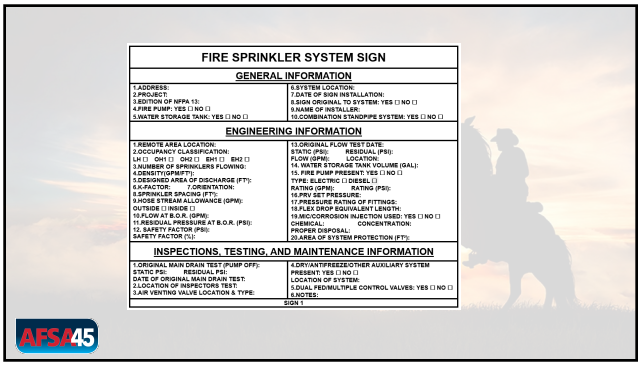

FIRE SPRINKLER SYSTEM SIGN

GENERAL INFORMATION

1.ADDRESS: 2.PROJECT: 3.EDITION OF NFPA 13: 4.FIRE PUMP: YES ☐ NO ☐ 5.WATER STORAGE TANK: YES ☐ NO ☐	6.SYSTEM LOCATION: 7.DATE OF SIGN INSTALLATION: 8.SIGN ORIGINAL TO SYSTEM: YES ☐ NO ☐ 9.NAME OF INSTALLER: 10.COMBINATION STANDPIPE SYSTEM: YES ☐ NO ☐

ENGINEERING INFORMATION

1.REMOTE AREA LOCATION: 2.OCCUPANCY CLASSIFICATION: LH ☐ OH1 ☐ OH2 ☐ EH1 ☐ EH2 ☐ 3.NUMBER OF SPRINKLERS FLOWING: 4.DENSITY/SQFT/SFT): 5.DESIGNED AREA OF DISCHARGE (FT²): 6.K-FACTOR: 7.ORIENTATION: 8.SPRINKLER SPACING (FT²): 9.HOSE STREAM ALLOWANCE (GPM): OUTSIDE ☐ INSIDE ☐ 10.FLOW AT B.O.R. (GPM): 11.RESIDUAL PRESSURE AT B.O.R. (PSI): 12. SAFETY FACTOR (PSI): SAFETY FACTOR (%):	13.ORIGINAL FLOW TEST DATE: STATIC (PSI): RESIDUAL (PSI): FLOW (GPM): LOCATION: 14. WATER STORAGE TANK VOLUME (GAL): 15. FIRE PUMP PRESENT: YES ☐ NO ☐ TYPE: ELECTRIC ☐ DIESEL ☐ RATING (GPM): RATING (PSI): 16.PRV SET PRESSURE: 17.PRESSURE RATING OF FITTINGS: 18.FLEX DROP EQUIVALENT LENGTH: 19.MIC/CORROSION INJECTION USED: YES ☐ NO ☐ CHEMICAL: CONCENTRATION: PROPER DISPOSAL: 20.AREA OF SYSTEM PROTECTION (FT²):

INSPECTIONS, TESTING, AND MAINTENANCE INFORMATION

1.ORIGINAL MAIN DRAIN TEST (PUMP OFF): STATIC PSI: RESIDUAL PSI: DATE OF ORIGINAL MAIN DRAIN TEST: 2.LOCATION OF INSPECTORS TEST: 3.AIR VENTING VALVE LOCATION & TYPE:	4.DRY/ANTIFREEZE/OTHER AUXILIARY SYSTEM PRESENT: YES ☐ NO ☐ LOCATION OF SYSTEM: 5.DUAL FED/MULTIPLE CONTROL VALVES: YES ☐ NO ☐ 6.NOTES:

SIGN 1

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Wet System Sign 10 Example

- NFPA 13 – Standard for the Installation of Sprinkler Systems (2025)
  - 3.3.224.12 Wet Pipe Sprinkler System.
    - Storage design approaches of Chapter 20 through Chapter 25
      - Chapter 23 ESFR Requirements for Storage Applications
        - 3.3.104* High-Piled Storage.
          - Ceiling Only Protection
            - Sign 10

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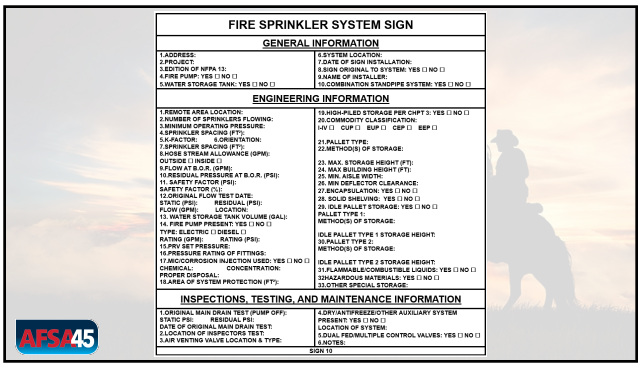

FIRE SPRINKLER SYSTEM SIGN

GENERAL INFORMATION

1.ADDRESS: 2.PROJECT: 3.EDITION OF NFPA 13: 4.FIRE PUMP: YES ☐ NO ☐ 5.WATER STORAGE TANK: YES ☐ NO ☐	6.SYSTEM LOCATION: 7.DATE OF SIGN INSTALLATION: 8.SIGN ORIGINAL TO SYSTEM: YES ☐ NO ☐ 9.NAME OF INSTALLER: 10.COMBINATION STANDPIPE SYSTEM: YES ☐ NO ☐

ENGINEERING INFORMATION

1.REMOTE AREA LOCATION: 2.NUMBER OF SPRINKLERS FLOWING: 3.MINIMUM OPERATING PRESSURE: 4.SPRINKLER SPACING (FT²): 5.K-FACTOR: 6.ORIENTATION: 7.SPRINKLER SPACING (FT²): 8.HOSE STREAM ALLOWANCE (GPM): OUTSIDE ☐ INSIDE ☐ 9.FLOW AT B.O.R. (GPM): 10.RESIDUAL PRESSURE AT B.O.R. (PSI): 11. SAFETY FACTOR (PSI): SAFETY FACTOR (%): 12.ORIGINAL FLOW TEST DATE: STATIC (PSI): RESIDUAL (PSI): FLOW (GPM): LOCATION: 13. WATER STORAGE TANK VOLUME (GAL): 14. FIRE PUMP PRESENT: YES ☐ NO ☐ TYPE: ELECTRIC ☐ DIESEL ☐ RATING (GPM): RATING (PSI): 15.PRV SET PRESSURE: 16.PRESSURE RATING OF FITTINGS: 17.MIC/CORROSION INJECTION USED: YES ☐ NO ☐ CHEMICAL: CONCENTRATION: PROPER DISPOSAL: 18.AREA OF SYSTEM PROTECTION (FT²):	19.HIGH-PILED STORAGE PER CHPT 3: YES ☐ NO ☐ 20.COMMODITY CLASSIFICATION: I-IV ☐ CUP ☐ EUP ☐ CEP ☐ EEP ☐ 21.PALLET TYPE: 22.METHOD(S) OF STORAGE: 23. MAX. STORAGE HEIGHT (FT): 24. MAX BUILDING HEIGHT (FT): 25. MIN. AISLE WIDTH: 26. MIN DEFLECTOR CLEARANCE: 27.ENCAPSULATION: YES ☐ NO ☐ 28. SOLID SHELVING: YES ☐ NO ☐ 29. IDLE PALLET STORAGE: YES ☐ NO ☐ PALLET TYPE 1: METHOD(S) OF STORAGE: IDLE PALLET TYPE 1 STORAGE HEIGHT: 30.PALLET TYPE 2: METHOD(S) OF STORAGE: IDLE PALLET TYPE 2 STORAGE HEIGHT: 31.FLAMMABLE/COMBUSTIBLE LIQUIDS: YES ☐ NO ☐ 32HAZARDOUS MATERIALS: YES ☐ NO ☐ 33.OTHER SPECIAL STORAGE:

INSPECTIONS, TESTING, AND MAINTENANCE INFORMATION

1.ORIGINAL MAIN DRAIN TEST (PUMP OFF): STATIC PSI: RESIDUAL PSI: DATE OF ORIGINAL MAIN DRAIN TEST: 2.LOCATION OF INSPECTORS TEST: 3.AIR VENTING VALVE LOCATION & TYPE:	4.DRY/ANTIFREEZE/OTHER AUXILIARY SYSTEM PRESENT: YES ☐ NO ☐ LOCATION OF SYSTEM: 5.DUAL FED/MULTIPLE CONTROL VALVES: YES ☐ NO ☐ 6.NOTES:

SIGN 10

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NFPA 25 Implications

- All Systems
  - Public Water Supply Degradation/Closed Valves
    - Annual Main Drain Test (10%)
  - Fire Pump Degradation
    - Annual Fire Pump Test (5%)

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NFPA 25 Implications
All Systems
Inspectors Test Location
Quarterly
PRV Set Pressure
Quarterly
5 Year
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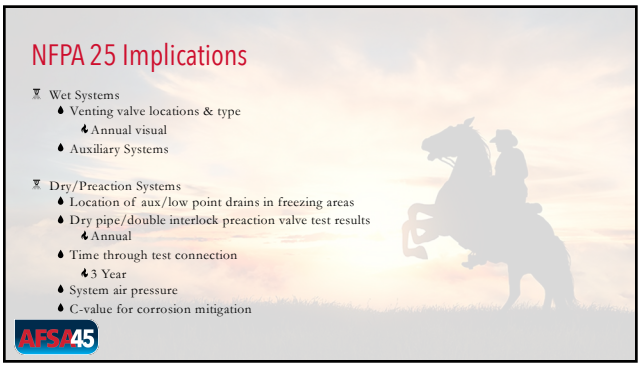
NFPA 25 Implications
Wet Systems
Venting valve locations & type
Annual visual
Auxiliary Systems
Dry/Preaction Systems
Location of aux/low point drains in freezing areas
Dry pipe/double interlock preaction valve test results
Annual
Time through test connection
3 Year
System air pressure
C-value for corrosion mitigation
AFSA45

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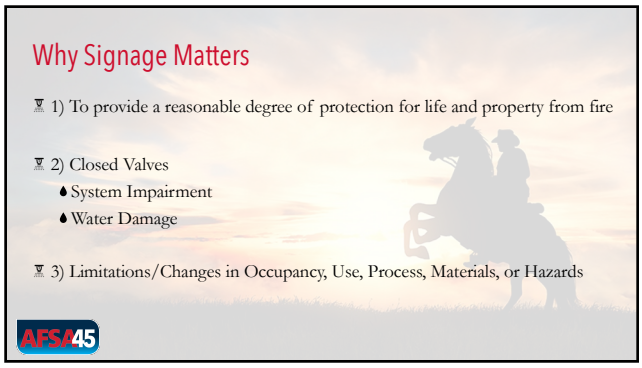
Why Signage Matters
1) To provide a reasonable degree of protection for life and property from fire
2) Closed Valves
System Impairment
Water Damage
3) Limitations/Changes in Occupancy, Use, Process, Materials, or Hazards
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Zoning Plan
Require for floors protected by more than 2 fire sprinkler systems?
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FOR CEU CREDIT:
✓ Badge scanned at start of seminar
✓ Attend full seminar
✓ Complete evaluation 1 of 2 ways:
✓ Evaluation link is emailed to attendees with scanned badges
✓ Event App by EventsAir
Login to app (using your email & 6-character app pin)
Only attendees who were scanned in will have evaluation access at end of session.
Thank you!
Noah Koski, SET, CWBSP
Speaker Company
410-746-0195
Noah.Koski@rfp-inc.us
AFSA45
Scan QR code to submit questions for Ask the Experts!

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