Protecting Your Property: How Well Do You Know Your Fire Systems

Joe Szewczyk, Risk Control Consultant
Objectives

• Where regulations related to fire systems come from
• Who enforces the laws related to fire system installation, maintenance, and testing
• What the different components that make up a fire system
Objectives

- Review testing and inspection requirements and frequency for components of your fire system
- Discuss the benefits of different components of fire systems
- Discuss the importance of prevention relating to protecting your property
General Information

- NFPA
  - Extinguishers
  - Alarm
  - Sprinkler
  - Suppression
  - Installation
  - Maintenance

- TSFMO
  - Licensing
  - AHJ
  - NOI
Fire Systems Overview

- Fire Alarm Systems
  - Detection and Notification
- Sprinkler Systems
  - Water Based Fire Protection
- Suppression Systems
  - Chemical Based Fire Protection
- Fire Extinguishers
  - Portable Extinguisher Protection
Fire Extinguishers

• First line of defense
  ▪ Minimum standard
• Size
• Shape
• Labeling
Extinguisher General

- No universal ext
- Classifications
- Training
  - Fire Safety Training
  - Bullox Simulator
- 911
- Fire Alarm
- Fight/Flight
Extinguisher General

- Inspections
  - Annual/Monthly
  - Tags/Seals
  - Service
- Signage
- Mounting
Fire Alarm Systems

- FACP
- Signals
  - Alarm (Red)
  - Trouble
  - Supervisory
  - Ground Fault
Fire Alarm Systems

• Inspection Tags
  • Blue
  • Yellow
  • Red
  • White
• Frequency
• Monitoring
Fire Alarm Systems

- Initiating Devices
  - Smoke Detector
  - Pull Station
  - Heat Detector
  - Sprinkler
  - Duct Detector
Fire Alarm Systems

• Notification Devices
  • Strobes
  • Speakers
  • Horns
  • Beacons

• Evacuation
• Alarm detected
Fire Alarm Systems

• Control Functions
  • Power Relays
  • Door/Fan Controls
  • Suppression Release
  • AHU Shutdown
  • Elevator Recall
Fire Sprinkler Systems
Fire Sprinkler Systems

Sprinklers are like the leaves — they can be anywhere along the branch, but are the final extension — the endpoint.

The Main and Primary Branch lines are also called Risers because they rise up through the floors.
Fire Sprinkler Systems

• Sprinkler Heads
  • Glass Bulb
  • Solder Link

• Control Valves

• Reporting
Fire Sprinkler Systems

• Wet Systems
  • Uses
  • Anti Freeze Loop

• Testing

• Maintenance
  • Internal - 5 yrs
  • Gauges
Fire Sprinkler Systems

- Dry Systems
  - Uses
  - Deluge
- Testing
- Maintenance
  - Internal - 3 yrs
  - Gauges
Fire Sprinkler Systems

- Pre Action Systems
  - Uses
  - vs. dry system

- Testing

- Maintenance
  - Internal- 3yrs
  - Gauges
Protection – Sprinkler Systems

- Inspection Tags
  - White
  - Yellow
  - Red
- Valves
- Signs
Fire Sprinkler Systems

All fire sprinkler systems have means of isolation, via valve control. There are numerous types of control valves:

- **Underground “Curb” Valves** – Covers painted Red
  - Named because they show OPEN or SHUT in the window

- **PIV – “Post Indicator Valves”**
  - Used to isolate Fire Hydrants and Fire Loop Supply lines

- **“Tamper” control valves** are used once the supply line comes out of the ground. Called Tamper valves because they are supervised by the fire alarm system.
Fire Sprinkler Systems

Valves are located throughout the sprinkler system, for isolation without rendering the entire system in an isolated state.
Fire Suppression Systems
Fire Suppression Systems
Fire Suppression Systems

• Uses
• Testing
• Maint
  • 6 mo
  • Links
  • Hydro
Risk Control Consultants

Northwest Risk Control
Jack Coffey
512-924-4773

Northeast Risk Control
Isaac Garcia
512-573-6596

Southwest Risk Control
Larry Boccaccio
512-924-4769

Southeast Risk Control
Joe Szewczyk
512-815-7869
Questions?