

# Fire Sprinkler Inspection Training and Certification

## Course Outline

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### **Day 1, Morning Session — Classroom**

**8:00am - 12:00am**

Overview of the operations of the following systems:

- Wet Pipe
- Dry Pipe
- Preaction Single and Double Interlock
- Deluge
- Water Foam
- Spray System
- Standpipe System

This overview will include the study of different forms of Water Supplies and Alarm & Detection as it relates to the water based systems

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### **Day 1, Afternoon Session - Classroom and Laboratory Sessions**

**1:00pm - 3:00pm**

Study of the Scope and Applications of the NFPA 25 Standard. This session will review the following:

- Equipment specific nature of inspections.
- System installation criteria. Issues relating to sprinkler and piping spacing and location.
- Maintenance, a procedure required by NFPA-25. Maintenance issues relating to manufacturers recommendations and potential liabilities. Repair, a part of your maintenance agreement?
- Inspection of common system components including piping, hangers, sprinklers, hydraulic nameplate, check valve, fire department connection, control valves, tamper switches, pressure reducing and regulating valves, strainers, back flow prevention devices.

**3:00pm - 7:00pm**

Laboratory & Field Session. Hands on procedures performed by the students will include the following functions:

Wet Pipe Systems

- Valve positions
- Water flow and tamper alarm operations
- Pressure gauge readings

- Main drain test
- Dry Pipe Systems
- Valve positions
  - Water and air gauge readings
  - Water flow and air pressure alarms
  - Main drain test
  - Priming water test
  - Condensation drum test
  - Partial trip test
  - Full trip test
  - Resetting valves
  - Safety
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## **Day 2, Morning and Afternoon Sessions - Laboratory and Classroom Sessions**

### **8:00am - 9:30am**

Laboratory and Field Session. Hands on procedures performed by the students will include the following functions:

Preaction and Deluge Systems

- Valve positions
- Pressure gauge readings
- Main drain test
- Water flow alarms
- Priming water test
- Trip test
- Resetting deluge valves
- Safety
- Restoration of Sprinkler Systems to Service

### **10:00am - 12:00am**

Classroom Session

- Study and Discussion of Fire Pumps

### **1:00pm - 3:00pm**

Laboratory Session

- Operation and flow of a fire pump
- Graphical Analysis of fire pump test

### **3:00pm - 5:00pm**

Laboratory Session

- Field Inspection of Facility

### **5:00pm - 6:00pm**

Classroom Session

- Discussion and Analysis of Field Inspection

**6:00pm - 7:00pm**

Classroom Session

Lecture and Discussion on Water Flow Tests

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## **Day Three, Morning Session—Field Session**

**Instructional Time: 16 hours**

**Continuing Education Credits: 1.6 CEUs, 16 PDHs**

School of Fire Protection Instructor:

Pat D. Brock, PE, Professor – Fire Protection

Thomas Woodford, M.S., Associate Professor – Department Head

Floyd Luinstra, PE, Adjunct Instructor