

FIRE PROTECTION SYSTEM INSPECTION & TESTING (NFPA 25)



HSE208

COURSE TITLE**FIRE PROTECTION SYSTEM INSPECTION & TESTING (NFPA 25)****COURSE DATE/VENUE**

17 – 21 November 2025

London, UK

COURSE REFERENCE

HSE208

COURSE DURATION

05 Days

DISCIPLINE**Health, Safety & Environmental****COURSE INTRODUCTION**

This course offers a clear, practical guide to NFPA 25, the standard for inspecting, testing, and maintaining water-based fire protection systems. Learn how to evaluate key components like sprinklers, standpipes, fire pumps, and valves to ensure they function properly and meet compliance requirements.

Ideal for fire safety professionals and facility managers, this course equips you to:

- Apply NFPA 25 inspection and testing procedures
- Identify and report system deficiencies
- Support ongoing fire protection system reliability and code compliance

COURSE OBJECTIVE**At the end of the training course, participants will:**

- Understand the structure and application of NFPA 25.
- Perform routine inspections, testing, and maintenance of fire protection systems.

- Identify common deficiencies, impairments, and violations.
- Apply best practices for documenting, reporting, and managing system readiness.
- Conduct hands-on evaluations for key fire protection components, including:
 - Sprinkler systems
 - Standpipe systems
 - Fire pumps
 - Fire hydrants
 - Fire alarms and detection systems
 - Special suppression systems (foam, clean agents, etc.)

COURSE AUDIENCE

This course is ideal for:

- Fire safety engineers and inspectors
- Facility and plant maintenance teams
- HSE professionals and safety officers
- Fire wardens and emergency response team members
- Insurance auditors and risk assessors
- FM Global, KOC, or civil defense compliance professionals

COURSE CONTENT

Day 1: Fundamentals and NFPA 25

Review of Applicable Codes and Standards (NFPA 25, NFPA 13, NFPA 72, local regulations)

Objectives and Applicability of NFPA 25

Defining Inspector Duties and Accountabilities

Introduction to Various Water-Based Fire Protection Systems

Managing Documentation and Handling System Impairments

Workshop:

Analysis of Example Inspection and Testing Documentation

Introduction to the NFPA 25 Compliance Checklist

Day 2: Sprinkler System Inspection, Testing, and Maintenance (ITM)

Sprinkler System Varieties (Wet, Dry, Pre-Action, Deluge)

Frequency of Inspections and Critical Visual Checkpoints

Performing Flow and Pressure Tests

Conducting Internal Pipe Assessments

Testing Procedures for Fire Department Connections (FDC)

Hands-On Session:

Sprinkler Head Identification and Visual Inspection

Valve Tagging Procedures and Documentation Practices

Day 3: Standpipes, Fire Pumps, and Water Supplies

ITM for Standpipe Systems (Class I, II, III)

Fire Pump Testing: Weekly/Monthly Operational Tests and Pressure Analysis (Churn vs. Flow)

Hydrant Testing: Flow Testing, Maintenance Lubrication, and Valve Operation

Practical Demonstration:

Live Fire Pump Operational Testing and Hydrant Flow Demonstration

Hands-On Pressure Measurement and Flow Rate Calculation

Day 4: Fire Alarm and Detection Systems

NFPA 72 Overview and its Coordination with NFPA 25

Function and Inspection of Smoke Detectors, Heat Detectors, and Manual Pull Stations

Testing Audible/Visual Notification Appliances and Control Panels

Inspection of Battery Backups and Primary Power Supplies

Practical Exercise:

Simulated Alarm Activation with Control Panel Monitoring

Verification of Detector Placement and Installation Standards

Day 5: Special Hazards Systems and Course Conclusion

Inspection of Clean Agent Systems (e.g., FM200, Novec 1230)

Foam Systems: Types and Maintenance Requirements

ITM for Dry Chemical and CO₂ Systems

Identifying and Rectifying Common Deficiencies

Procedures for Managing System Impairments and Effective Communication

Final Comprehensive Review and Practical Skills Assessment

COURSE CERTIFICATE

TRAINIT ACADEMY will award an internationally recognized certificate(s) for each delegate on completion of training.

COURSE FEES

£5,500 per Delegate. This rate includes participant's manual, Hand-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

COURSE METHODOLOGY

The training course will be highly participatory and the course leader will present, guide and facilitate learning, using a range of methods including formal presentation, discussions, sector-specific case studies and exercises. Above all, the course leader will make extensive use of real-life case examples in which he has been personally involved. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

- 30% Lectures

- 30% Workshops and work presentation
- 20% Case studies & Practical Exercises
- 10% Role Play
- 10% Videos, Software or Simulators (as applicable) & General Discussions

