Fire Risk Assessment and Fire Protection Systems Management

22 – 26 March 2027
London - Central London four-star



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Ref: 228_11240 **Date:** 22 – 26 March 2027 **Location:** London - Central London four-star **Fees:** 25300 SAR

Introduction:

Fire risk assessment is where every premises precaution starts, yet many assessments are copied from templates, never revisited and disconnected from the detection, sprinkler and gaseous extinguishing equipment meant to control the hazard. When equipment goes unserviced, or changes to layout, occupancy and storage go unrecorded, a small ignition can breach compartments and cut off escape routes. This Core Concept course trains safety, HSE and facilities staff to assess premises with a five-step method, oversee protection equipment through its service life and run written management arrangements. Participants produce a Premises Fire Risk Assessment Record and Management Arrangements file.

Course Objectives:

- Explain how combustion starts, grows and spreads within a compartment and why smoke is the main threat to occupants
- Conduct a five-step fire risk assessment that identifies hazards and people at risk, evaluates the risk, records significant findings and sets a reassessment cycle
- Evaluate means of escape and compartmentation against travel distance, protected route and fire-resistance principles
- Specify the role, limits and inspection, testing and maintenance regime of detection, sprinkler, hydrant, gaseous and foam equipment
- Control ignition sources and equipment impairments through hot work permits, watch arrangements, evacuation drills and written management arrangements
- Produce a Premises Fire Risk Assessment Record and Management Arrangements file with drill and cause-and-origin enquiry procedures

Target Audience:

- Safety practitioners responsible for risk assessments and day-to-day precautions at a premises
- HSE staff who advise management on ignition hazards, evacuation drills and post-event follow-up
- Facilities and building operations staff who manage protection contractors and service records
- Maintenance supervisors responsible for hot work, equipment impairments and servicing
- Wardens and site coordinators responsible for evacuation arrangements and drill records

Course Outline:

Day 1: Combustion Science, Smoke Behaviour and the Premises Baseline

- Combustion Triangle, Products of Combustion and Heat Transfer by Conduction, Convection and Radiation
- Compartment Growth Stages: Ignition, Growth, Flashover, Fully Developed and Decay
- Smoke Movement, Toxicity and Visibility Loss as the Main Threat to Occupants
- Ignition Sources, Fuel Loads and Oxygen Enrichment in Offices, Warehouses and Workshops
- Current-State Premises Precautions Baseline Survey Sheet

Day 2: Five-Step Fire Risk Assessment Method and Passive Measures

- Five-Step Method: Hazards, People at Risk, Evaluate, Record, Reassess
- People at Risk Profiling: Lone Workers, Visitors, Contractors and Persons With Disabilities
- Likelihood and Consequence Rating Matrix for Hazard Evaluation
- Means of Escape Principles: Travel Distance, Alternative Exits and Protected Routes
- Compartmentation, Fire-Resisting Doorsets and Fire-Stopping of Service Penetrations

Day 3: Active Protection Equipment and Its Upkeep

- Detection and Alarm Categories, Zoning and Cause-and-Effect Matrix
- Sprinkler Types: Wet, Dry, Pre-Action and Deluge Selection Logic
- Hydrant, Pump Set and Hose Reel Water Supply Arrangements
- Gaseous Extinguishing and Foam Installations: Enclosure Integrity and Discharge Safety
- Inspection, Testing and Maintenance Regimes Following NFPA 25 and NFPA 72

Day 4: Prevention, Control and Management Problem Cases

- Hot Work Permit, Post-Work Watch and Ignition Source Control Procedure
- Impairment Notification and Interim Compensating Measures
- Management Arrangements: Roles, Housekeeping, Contractor Control and Records
- Evacuation Drill Planning, Timing and Post-Drill Debrief Record
- Cause-and-Origin Enquiry Basics: Evidence Preservation, Witness Accounts and Lessons Learned

Day 5: Premises Assessment Exercises and the Management Arrangements File

- Multi-Tenant Office Exercise: Stair Protection, Door Closers and Detector Coverage
- Distribution Centre Exercise: High Rack Fuel Load, Head Shielding and Hydrant Access
- Server Room Exercise: Gaseous Enclosure Integrity and Service Log Verification
- Significant Findings Record and Prioritised Action Schedule Drafting
- Premises Assessment Presentation and Peer Challenge

Skills You Will Gain:

- Combustion Behaviour Analysis
- Hazard Identification
- Premises Risk Evaluation
- Means of Escape Review
- Protection Equipment Oversight
- Ignition Source Control
- Safety Management Arrangements
- Cause-and-Origin Enquiry

Why Attend This Course:

- Return with a Premises Fire Risk Assessment Record and Management Arrangements file built on your own site
- Spot the compartmentation breaches, shielded sprinkler heads and obstructed routes that template assessments miss
- Read a contractor's detection or sprinkler service report and judge whether the equipment can be relied on
- Compare precautions with peers from offices, logistics, healthcare, hospitality and manufacturing sites

Conclusion:

Premises risk is controlled when the assessment, passive measures, active equipment and the people who manage them work together. The course moves from combustion and smoke, through the five-step fire risk assessment method, escape routes and compartmentation, to detection, sprinkler, hydrant and gaseous equipment and its upkeep, then hot work, impairments, drills and cause-and-origin enquiry. The final day applies these methods in premises exercises and produces a Premises Fire Risk Assessment Record and Management Arrangements file ready for use.