JUPITER PRIME
Consulting • Training • Advisory
جوبيتر برايم للاستشارات والتدريب

COURSE BROCHURE

Building Fire Risk Evaluation and Prevention Systems Training Course

25 July – 5 August 2027
Muscat

Building Fire Risk Evaluation and Prevention Systems Training Course

Ref: 2663_101504 **Date:** 25 July – 5 August 2027 **Location:** Muscat **Fees:** 9900 GBP

Building Fire Risk Evaluation and Prevention Systems is a 2-week training course for fire safety officers and facility managers who need to judge how well a building resists, detects and contains fire, and produce a site fire risk evaluation report. Buildings now hold more stored energy, denser occupancy and more contractor activity than their original fire design assumed. The course is delivered by Jupiter Prime Training.

Why Building Fire Risk Evaluation and Prevention Systems Matter Now

Three forces are reshaping fire safety in occupied buildings. Refits and changes of use quietly break compartment lines that were sound at handover. Battery storage, data equipment and denser warehousing add fuel and new ignition paths. Insurers, tenants and boards now ask for written evidence that fire precautions work rather than a certificate on the wall. A site that evaluates fire risk well spends its upgrade budget where lives and assets are most exposed; one that does not finds gaps only after an alarm.

Who Gains Most from Building Fire Risk Evaluation and Prevention Systems

- Those responsible for carrying out fire risk evaluations across a portfolio of sites
- Those who manage maintenance contracts for alarms, sprinklers and fire doors
- Those who set evacuation strategies and train wardens
- Those who approve refits, tenant changes and hot work on occupied premises
- Those who report fire exposure to senior leaders and insurers

A site team that sends its fire safety lead and facility manager together gains most, because findings and maintenance budgets then sit together.

Building Fire Risk Evaluation and Prevention Systems Capabilities

Participants leave able to read a building as a fire engineer would, from ignition source to final exit.

- Assess fire scenarios for each zone using a consistent likelihood and consequence scale — senior leaders accepting residual exposure
- Specify detection and alarm arrangements that match each room's use — maintenance contractors and panel engineers
- Test whether suppression systems and water supplies would perform on demand — insurers and property owners
- Weigh compartmentation defects against escape strategy and occupant needs — duty holders setting evacuation rules
- Design an action plan that sequences upgrades without closing an occupied building — finance and operations heads
- Communicate fire risk findings in plain terms with photographic evidence — boards, tenants and inspectors

Key Building Fire Risk Evaluation and Prevention Systems Terms

- Compartmentation — dividing a building into fire-resisting sections so fire and smoke are held where they start for a set time.
- Fuel load — the quantity of combustible material in a space, which drives how large and how long a fire can become.
- Cause-and-effect chart — a table showing which outputs, such as door releases or fan shutdowns, each detector or zone triggers.
- Impairment — any period when a fire protection system is out of service, needing interim controls until it is restored.
- Tenable conditions — the levels of heat, smoke and toxic gas that occupants can survive while they escape.
- Residual fire risk — the exposure that remains after current precautions, which a responsible person must accept or reduce.

Building Fire Risk Evaluation and Prevention Systems Day by Day

Day 1: Fire Behaviour and Building Occupancy

- Fire Triangle and Growth Curves — Which Ignition Paths Matter Most
- Heat Release and Smoke Production — Tenable Conditions for Occupants
- Occupancy Profiles and Sleeping Risk — Priority of Protection Measures
- Fuel Load Surveys — Storage Limits in Plant Rooms and Archives
- Lessons from Major Building Fires — Gaps Worth Checking First

Day 2: Hazard Identification on Site

- Ignition Source Walkdowns — Hot Work, Electrical and Cooking Controls
- Combustible Façade and Cladding Checks — Escalation Between Floors
- Arson Exposure Review — Perimeter, Bins and Waste Compounds
- Lithium Battery Charging Areas — Separation and Detection Needs
- Hazard Register for Fire — Owners and Review Frequency

Day 3: Fire Risk Evaluation Methods

- Likelihood and Consequence Matrices — Ranking Fire Scenarios Consistently
- Scenario Selection for Fire — Credible Worst Cases per Zone
- Qualitative Versus Semi-Quantitative Scoring — Choosing the Right Depth
- Residual Fire Risk Statements — What Senior Leaders Must Accept
- Evidence Logs and Photographs — Defensible Findings at Audit

Day 4: Detection and Alarm Systems

- Smoke, Heat and Multi-Sensor Detectors — Matching Sensors to Rooms
- Detection Zoning and Cause-and-Effect Charts — Correct Alarm Responses
- False Alarm Patterns — Filtering Without Losing Early Warning
- Aspirating Detection in High-Value Spaces — Data Halls and Galleries
- Alarm Testing Records — Proof That Panels Still Respond

Day 5: Suppression Systems

- Wet, Dry and Pre-Action Sprinklers — Fit with Each Occupancy
- Gaseous Suppression in Enclosed Rooms — Hold Time and Room Integrity
- Water Mist and Kitchen Hood Systems — Local Protection Choices
- Fire Pumps, Tanks and Valve Monitoring — Water Supply Reliability
- Impairment Permits for Suppression — Interim Measures During Outages

Day 6: Compartmentation and Passive Protection

- Fire-Resisting Walls and Floors — Containing Spread Between Compartments
- Fire Doors, Closers and Gaps — Inspection Findings That Recur
- Penetration Seals and Cavity Barriers — Contractor Work Hidden in Voids
- Structural Fire Protection Coatings — Inspection and Damage Repair
- Smoke Control Dampers and Shafts — Keeping Escape Routes Clear

Day 7: Means of Escape and Evacuation

- Travel Distances and Exit Widths — Escape Capacity for Peak Occupancy
- Simultaneous, Phased and Stay-Put Strategies — Matching the Building
- Personal Evacuation Plans — Occupants Needing Assistance
- Refuge Areas and Evacuation Lifts — Communication and Rescue Duties
- Evacuation Drill Debriefs — Timed Results Against Assumed Times

Day 8: Fire Safety Management Arrangements

- Fire Wardens and Duty Holders — Clear Roles on Every Shift
- Contractor and Hot Work Control — Permits, Watches and Sign-Off
- Housekeeping and Storage Audits — Fuel Load Kept Within Limits
- Maintenance Regimes for Fire Equipment — Contract Scope and Evidence
- Fire Safety Logbook — Records an Inspector Expects to See

Day 9: Prioritising Fire Risk Actions

- Action Plans with Owners and Deadlines — Closing Significant Findings
- Cost and Disruption Weighing — Sequencing Upgrades in Occupied Buildings
- Change Triggers for Re-Evaluation — Refits, New Tenants and Incidents
- Reporting Fire Risk to Senior Leaders — Exposure in Plain Terms
- Sector Cases: Hospitals and Logistics Warehouses — Contrasting Priorities

Day 10: Practising the Site Fire Risk Evaluation Report

- Applying Hazard Walkdowns — Field Exercise on a Case Building
- Applying Scenario Ranking — Scoring the Case Building Zones
- Applying System Checks — Detection, Suppression and Compartment Findings
- Applying Escape Analysis — Evacuation Strategy for the Case Building
- Site Fire Risk Evaluation Report — Findings, Ratings and Action Plan

Applying Building Fire Risk Evaluation and Prevention Systems After the Course

- Lead a fire door, penetration seal and damper walkdown in one building and log every defect with a photograph and owner.
- Run a timed evacuation drill, compare the result with the assumed escape time and revise personal evacuation plans where needed.

Building Fire Risk Evaluation and Prevention Systems Questions FAQ

What is building fire risk evaluation and prevention systems training and why does it matter now?

It teaches you to rank fire scenarios in a building and check that detection, suppression, compartments and escape routes would work. It matters now because refits, battery storage and denser occupancy are adding fire exposure faster than original designs allowed.

Which roles gain most from building fire risk evaluation and prevention systems skills?

Fire safety officers and facility managers gain most. You will also benefit if you approve contractor work, manage fire equipment maintenance or report building exposure to senior leaders, insurers or tenants.

How does building fire risk evaluation and prevention systems training differ from a firefighting or emergency response course?

It focuses on preventing and containing fire before anyone responds. A firefighting or emergency response course trains people to tackle a fire; this one trains you to find weaknesses in buildings and systems and fix them in a planned order.

What will I bring back from building fire risk evaluation and prevention systems training?

You bring back a completed fire risk evaluation for a case building. It covers ranked scenarios, system and compartment findings, an evacuation strategy and an action plan you can adapt to your own site the following week.

Building Fire Risk Evaluation and Prevention Systems: The Way Forward

The site fire risk evaluation report is the starting point. Its first use is deciding which significant findings close first. Fire safety officers, facility managers and duty holders share it. After the first refit or tenant change, revisit the scenario rankings, because the building that was evaluated is no longer the building in use.