Safety Technology and Risk Management

Venue Information

Venue: London UK

Place:

Start Date: 2026-12-01

End Date: 2026-12-05

Course Details

Net Fee: £4750.00

Duration: 1 week

Category ID: STC

Course Code: STC-13

Syllabus

courses Syllabus

Introduction:

As technological systems grow in complexity, identifying safety hazards and managing risks become increasingly challenging. Plant managers and engineers must navigate through changing international and national standards to ensure compliance with environmental and economic values. This training courses provides practical insights into safety engineering and risk assessment methods, drawing from established principles and professional bodies like the Institute of Chemical Engineers (IChemE).

Objectives:

Upon completion of this training courses, participants will be able to:

- Apply hazard identification and risk assessment principles to processes and machinery.
- Understand reliability concepts and utilize failure tracing methods.

courses Content:

Day 1: Hazard Identification

Detailed:

- Introduction to safety engineering and major disasters.
- Hazard identification process and criteria for risk tolerability.
- Hazard identification techniques and safety standards in engineering.

Day 2: Risk Assessment Techniques

Detailed:

- Safety management and risk assessment methodologies.
- Introduction to HAZOP and task-based risk assessment.
- Machinery hazard identification and accident prevention methods.

Day 3: Machinery and Work Equipment Safety

Detailed:

- Causes and prevention methods for machinery accidents.
- Failure mode and effective analysis.
- Human factors safety analysis and performance.

Day 4: Reliability Technology

Detailed:

- Types and causes of failures in machinery and systems.
- Reliability of components and design of control systems.
- Safety Integrity Levels (SIL) selection and maintenance regimes.

Day 5: Consequences Analysis

Detailed:

- Mechanics of fire, explosion, and toxic releases.
- Dispersion modeling software and types of fire and explosions.
- Quantification of risk and Event Tree Analysis (ETA).