BLACKBIRD FOR TRAINING

Comprehensive Safety Technology & Risk Management

London (UK)

30 December 2024 - 10 January 2025

UK Traininig

PARTNER

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Comprehensive Safety Technology & Risk Management

Code: HS28 From: 30 December 2024 - 10 January 2025 City: London (UK) Fees: 8600 Pound

Introduction

As technological systems become more complex it becomes increasingly difficult to identify safety hazards and to control their impact. Plant Managers and Engineers are becoming more aware that safety and risk touch on every aspect of the day to day running of their Plants and engineering and process systems if they are to comply with ever-changing and demanding International, and National environmental and economic values and standards.

Unsafe systems can result in monies being lost due to accidents, disruption to production, criminal and civil prosecutions, loss of market share, and the degradation of company assets and the environment

Course Objectives

- Apply the principles of hazard identification and assessment of risk to processes and machinery.
- Understand reliability concept and use of failure tracing methods.
- Demonstrate a practical understanding of a quantitative risk assessment technique and the date required for records.
- Advise management on the most effective control methods based on the evaluation of risk.
- Identify the general requirement for the development of a safe system of work.
- Recognize relevant International Standards for Reliability and Machinery Safety.
- Promote a proactive attitude within the individual to hazard analysis.

Course Outlines

Day 1: Introduction to Safety Engineering: Hazard Identification and Control

- Hazard Identification.
- Why do we need safety engineering.
- Examples of major disasters.
- The safety system process.
- Hazard identification.
- Hazard control.

Day 2: Risk Tolerability Criteria, Hazard Identification Techniques, and Designing Out Hazards

- Criteria for risk tolerability.
- Hazard Identification Techniques.
- Design out hazards.

Day 3: Safety Standards, Safety Analysis in Engineering, Chemical Processes, and

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Manufacturing

- Safety standards codes, national and international.
- Safety analysis in engineering.
- Safety analysis in Chemical process.
- Safety analysis in manufacturing.

Day 4: Risk Assessment Techniques, Safety Management, Safety in the System Life Cycle, Hazard Identification Check-list, Process, Workplace, and Equipment Risk Assessment, Task-based Risk Assessment, Introduction to HAZOP

- Risk Assessment Techniques.
- Safety Management.
- Safety in the system life cycle.
- Hazard identification check-list.
- Process, workplace, work equipment risk assessment.
- Task-based risk assessment.
- Introduction to HAZOP.

Day 5: Machinery and Work Equipment Safety, Machinery Hazard Identification, Causes and Methods for Machinery Accident Prevention, HAZOP Examples, Failure Modes, Human Factors, and Software Safety, Conducting a Failure Mode and Effects Analysis

- Machinery and Work Equipment Safety.
- Machinery hazard identification.
- Causes and methods for machinery accident prevention.
- HAZOP examples.
- Failure modes, human factors, and software safety.
- Conducting a failure mode and effects analysis.

Day 6: Human Factors Safety Analysis, Performance and Human Error, Human Factors and Safety Analysis

- Human factors safety analysis.
- Performance and human error.
- Human factors and safety analysis.

Day 7: Reliability Technology, Types and Causes of Failures, Methods of Preventing Failure, Types of Maintenance and Inspection Regimes

- Reliability Technology.
- Types and causes of failures.
- Methods of preventing failure.
- Types of maintenance and inspection regimes.

Day 8: Reliability of Components and Systems, Design and Reliability of Control Systems, Design and Reliability of Protective Systems, The Concept of 'HIPS', Safety Integrity Levels SIL

Selection

- Reliability of components and systems.
- Design and reliability of control systems.
- Design and reliability of protective systems.
- The concept of HIPS.
- Safety Integrity Levels SIL selection.

Day 9: Consequences Analysis, Mechanics of Fire, Explosion, and Toxic Releases, Dispersion Modeling Software, Types of Fire: Flash, Jet, Cascading Fires, and BLEVE, Types of Explosion

- Consequences Analysis.
- Mechanics of fire, explosion, and toxic releases.
- Dispersion modeling software.
- Types of fire: flash, jet, cascading fires and BLEVE.
- Types of explosion.

Day 10: Quantification of Risk, Event Tree Analysis ETA

- Quantification of risk.
- Event Tree Analysis ETA.

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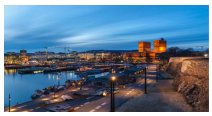
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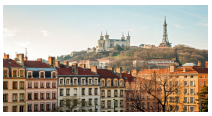
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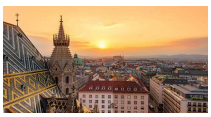
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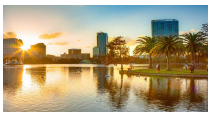
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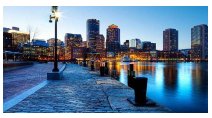
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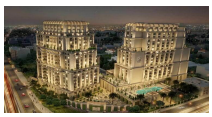
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