

Safety Technology & Risk Management

Berlin (Germany)

17 - 21 November 2025

UK Training

PARTNER



Safety Technology & Risk Management

Code: HS28 From: 17 - 21 November 2025 City: Berlin (Germany) Fees: 4900 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 the reliability concept and use of failure tracing methods.
- Demonstrate a practical understanding of a quantitative risk assessment technique and the data 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

Hazard Identification

- Why do we need safety engineering?
- Examples of major disasters.
- The safety system process.
- Hazard identification.
- Hazard control.
- Criteria for risk tolerability.
- Hazard Identification Techniques.
- Design out hazards.
- Safety standards codes, national and international.
- Safety analysis in engineering.
- Safety analysis in the Chemical process.
- Safety analysis in manufacturing.

UK Training
PARTNER



Day 2

Risk Assessment Techniques

- Safety Management.
- Safety in the system life cycle.
- Hazard identification checklist.
- Process, workplace, and work equipment risk assessment.
- Task-based risk assessment.
- Introduction to HAZOP.

Day 3

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

Day 4

Reliability Technology

- Types and causes of failures.
- Methods of preventing failure.
- Types of maintenance and inspection regimes.
- 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 5

Consequences Analysis

- Mechanics of fire, explosion, and toxic releases.
- Dispersion modeling software.
- Types of fire: flash, jet, cascading fires, and BLEVE.
- Types of explosion.
- Quantification of risk.
- Event Tree Analysis "ETA".



Blackbird Training Cities

Europe



Malaga (Spain)



Sarajevo (Bosnia and Herzegovina)



Oporto (Portugal)



Glasgow (Scotland)



Edinburgh (UK)



Oslo (Norway)



Anney (France)



Bordeaux (France)



Copenhagen (Denmark)



Birmingham (UK)



Lyon (France)



Moscow (Russia)



Stockholm (Sweden)
(Netherlands)



Podgorica (Montenegro)



Batumi (Georgia)



London (UK)



Istanbul (Turkey)



Amsterdam



Düsseldorf (Germany)



Paris (France)



Barcelona (Spain)



Munich (Germany)



Geneva (Switzerland)



Prague (Czech)



Vienna (Austria)



Rome (Italy)



Brussels (Belgium)



Madrid (Spain)



Berlin (Germany)



Lisbon (Portugal)



Zurich (Switzerland)



Manchester (UK)



Milan (Italy)



Blackbird Training Cities

USA & Canada



Los Angeles (USA)



Orlando, Florida (USA)



Online



Phoenix, Arizona (USA)



Houston, Texas (USA)



Boston, MA (USA)



Washington (USA)



Miami, Florida (USA)



New York City (USA)



Seattle, Washington (USA)



Washington DC (USA)



In House



Jersey, New Jersey (USA)



Toronto (Canada)

Africa



Baku (Azerbaijan)
(Thailand)



Maldives (Maldives)



Doha (Qatar)



Manila (Philippines)



Bali (Indonesia)



Bangkok



Beijing (China)



Singapore (Singapore)



Sydney (Australia)



Tokyo (Japan)



Jeddah (KSA)



Riyadh (KSA)



Dubai (UAE)



Kuala Lumpur (Malaysia)



Kuwait City (Kuwait)



Pulau Ujong (Singapore)



Jakarta (Indonesia)



Amman (Jordan)



Beirut (Lebanon)



Blackbird Training Cities

Asia



Kigali (Rwanda)



Cape Town (South Africa)



Accra (Ghana)



Lagos (Nigeria)



Marrakesh (Morocco)



Nairobi (Kenya)



Zanzibar (Tanzania)



Tangier (Morocco)



Cairo (Egypt)



Sharm El-Sheikh (Egypt)



Casablanca (Morocco)



Tunis (Tunisia)



Blackbird Training Clients



UK Training
PARTNER



Blackbird Training Categories

Management & Admin

Professional Skills
Finance, Accounting, Budgeting
Media & Public Relations
Project Management
Human Resources
Audit & Quality Assurance
Marketing, Sales, Customer Service
Secretary & Admin
Supply Chain & Logistics
Management & Leadership
Agile and Elevation

Technical Courses

Hospital Management
Public Sector
Special Workshops
Oil & Gas Engineering
Telecom Engineering
IT & IT Engineering
Health & Safety
Law and Contract Management
Customs & Safety
Aviation
C-Suite Training



BLACKBIRD
FOR TRAINING



International House 185 Tower Bridge
Road London SE1 2UF United Kingdom



+44 7401 1773 35
+44 7480 775526



Sales@blackbird-training.com



www.blackbird-training.com

UK Training

PARTNER

