

Safety Case Developer

Safety Case Development & Application

HSE066

Course Description

This course is designed for professionals involved in safety management, particularly those tasked with developing safety cases for high-risk industries such as oil and gas, chemical, and energy sectors. Participants will learn the principles of safety case development, including risk assessment, hazard analysis, and the application of safety management systems to ensure compliance with regulatory requirements. The course provides a comprehensive understanding of how to develop, implement, and maintain a safety case, as well as how to ensure its application to enhance safety culture, reduce risks, and protect personnel and assets.

Course Objectives

By the end of this course, participants will be able to:

- Understand the concept and importance of safety cases in high-risk industries.
- Develop a structured and comprehensive safety case in compliance with regulatory requirements.
- Identify and assess hazards and risks through systematic risk analysis methods.
- Implement safety management systems and ensure they are integrated into the safety case.
- Apply safety case elements, including emergency response plans, maintenance strategies, and safety-critical equipment.
- Ensure the effective application and continuous review of safety cases to maintain safety standards.
- Communicate safety case findings and compliance status to stakeholders, regulators, and other key parties.

Who Should Attend

- Safety managers, safety engineers, and risk management professionals involved in the development and application of safety cases.
- Engineers and technical personnel in high-risk industries such as oil and gas, chemical, and energy sectors.
- Project managers and team leaders responsible for ensuring safety case development and compliance.
- Anyone involved in safety management systems, hazard analysis, or risk assessment in high-risk operations.
- Professionals aiming to develop expertise in safety case development and application.

Course Duration

5 Working Days

Course Outlines

1. Introduction to Safety Cases

- Overview of safety case development and its role in risk management.
- Regulatory frameworks and the importance of safety cases in ensuring compliance.
- Key concepts in safety case development: risk assessment, hazard identification, and control measures.

2. Regulatory Requirements and Standards

- Understanding industry-specific safety case regulations (e.g., UK HSE, EU regulations, and international standards).
- Compliance requirements and the role of safety cases in maintaining regulatory compliance.
- The relationship between safety cases and safety management systems.

3. Hazard and Risk Identification

- Techniques for identifying hazards and risks in the workplace or operational environments.
- Performing hazard analysis using methods such as HAZID (Hazard Identification) and HAZOP (Hazard and Operability Study).
- Assessing risk through qualitative and quantitative risk analysis methods.

4. Developing the Safety Case

- Structuring and organizing the safety case: executive summary, scope, objectives, and safety management practices.
- Documenting safety-critical information: risk assessments, emergency plans, and safety system descriptions.
- Developing the safety case documentation in alignment with regulatory frameworks.

5. Safety Management Systems in the Safety Case

- Incorporating safety management systems (SMS) into the safety case.
- Managing safety-critical equipment, procedures, and controls.
- The role of safety culture in effective safety case development and application.

6. Emergency Response and Mitigation Strategies

- Developing emergency response plans within the safety case.
- Identifying safety-critical systems and ensuring effective mitigation strategies.
- Evaluating emergency preparedness and conducting safety drills.

7. Safety Case Implementation and Application

- Ensuring the practical application of the safety case throughout the lifecycle of the project or operation.
- Monitoring and maintaining the safety case: updates, reviews, and audits.
- Ensuring ongoing compliance with the safety case and regulatory requirements.

8. Review, Audit, and Continuous Improvement

- Techniques for reviewing and auditing the safety case to ensure its relevance and effectiveness.
- Using safety performance data to improve safety case content and application.
- Continuous improvement processes in safety management.

9. Communicating Safety Case Findings

- Effectively communicating the safety case to stakeholders, regulators, and senior management.
- Reporting and documenting safety case compliance status.
- Ensuring transparency and stakeholder buy-in for safety initiatives.

