

Process Safety Management in Design & Operations

Purpose

Controlling risks within major hazard enterprises requires a robust process safety management (PSM) system. This course introduces the essential elements of a PSM system and provides an overview of key focus areas including process safety leadership, process safety studies, strategies for reducing and managing risk, and monitoring and auditing performance.

At the end of the course you will be able to

1. Analyse the process safety management system
2. Analyse the importance of assuring the integrity of engineered barriers (plant), competency of key personnel (people) and quality of procedures (processes)
3. Devise approaches for the successful implementation of the process safety management system.

Outline content

Definition of Process Safety Management (PSM)

Twenty elements of a PSM system:

- Process safety leadership
- Risk identification and assessment
- Risk management
- Review and improvement

Process safety standards and guidance

Inherently safer design

Process safety studies:

- HAZID, HAZOP and FMEA
- Layers of protection analysis (LOPA) and SIL
- Physical effects modelling
- Reliability, Availability and Maintainability (RAM) modelling
- ALARP assessment

Process safety reviews

Barrier diagrams (Bowtie analysis)

Safety critical elements, performance standards, assurance and verification

Process safety leading and lagging indicators

Process safety audits

Management of change

Implementation aspects

Recommended prior study

Education, skills or experience equivalent to undergraduate level

Who should attend

Project managers, project engineers, project advisors, operations and maintenance managers, and process safety practitioners, especially those working in large, complex, high-value project and operational environments

Delivery Methods

Face-to-face, Distance Learning, or Blended Learning

Levels of Assessment

- Attendance only
- Assessment by Risktec
- Postgraduate Qualifications: PgCert, PgDip and MSc

Assessment details

Postgraduate programmes: activities and assignment (total about 80 hours)

Module Details

Level: Masters
Duration: 2 days (F2F), or 8 weeks (Postgraduate DL)

Price

For prices and further information, or to book a course, please contact **Vicky Billingham** at training@risktec.tuv.com

Contact

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