

# Process Safety Management in High-Risk Industries Training Course

02 - 06 Jun 2026 Milan





# **Process Safety Management in High-Risk Industries Training Course**

Ref.: 103600352\_48993 Date: 02 - 06 Jun 2026 Location: Milan Fees: 5700 Euro

#### **Course Overview:**

This course is designed to equip professionals with the essential skills and knowledge needed to manage safety risks effectively in high-hazard environments. Rooted in global best practices and tailored for industries such as oil and gas, chemical production, and manufacturing, this program integrates process safety systems, hazard control strategies, and emergency planning frameworks.

Participants will explore key topics such as process safety management systems, contractor safety oversight, emergency response planning, static electricity hazard control, and the FARSI model for safety-critical equipment. With modules aligned to international safety standards, learners will develop expertise in process hazard identification HAZID, Bowtie analysis, permit-to-work systems, thermal runaway prevention, and ALARP-based decision-making.

#### **Target Audience:**

**HSE Managers and Supervisors** 

**Process Safety Engineers** 

Health and Safety Consultants

Maintenance Managers

Site Operation Managers

Safety Trainers and Advisors

Industrial Risk Specialists



#### **Targeted Organizational Departments:**

Health, Safety & Environment HSE

**Production and Operations** 

Risk Management & Compliance

Engineering & Maintenance

Chemical Safety Units

Process Safety Leadership Teams

#### **Targeted Industries:**

Oil and Gas

Chemical Manufacturing

Petrochemicals

Pharmaceutical Production

**Industrial Processing Plants** 

Food and Beverage Manufacturing

Utilities and Power Generation

#### **Course Outcomes:**

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

Identify and manage key process safety hazards

Implement and maintain an effective Process Safety Management System PSMS

Apply ALARP principles to risk assessments and operational decisions

Conduct Bowtie, HAZID, and HAZOP analyses to identify and mitigate risks

Design emergency response plans aligned with regulatory frameworks

Evaluate contractor safety performance and implement control measures

Develop leading and lagging process safety performance indicators



#### **Training Methodology:**

This course uses a blended approach combining theory, practice, and interactive learning. Participants engage in case studies from real industrial incidents to simulate hazard identification HAZID, Bowtie analysis, and FMEA workshops. Techniques such as group work, simulations, and structured discussions reinforce the connection between classroom theory and field practice.

#### **Course Toolbox:**

Digital Study Guide for Process Safety Management

Process Safety System Templates and Checklists

**HAZID** and **HAZOP** Worksheets

**FARSI Model Performance Checklist** 

Curated List of International Safety References and Resources

Access to Online Case Studies and Practice Exercises

#### **Course Agenda:**

#### **Day 1: Process Safety Foundations & Leadership**

**Topic 1:** Overview of Process Safety and Course Objectives

**Topic 2:** Process vs. Personal Safety - Key Distinctions

**Topic 3:** Leadership and Safety Culture Development

**Topic 4:** Organizational Learning and Benchmarking

**Topic 5:** Change Management and Safety Communication

**Topic 6:** Contractor Engagement and Worker Involvement

Reflection & Review: Leadership Influence on Safety Outcomes



#### **Day 2: Managing Process Safety Risk**

Topic 1: Building and Implementing a PSMS

**Topic 2:** Risk Assessment Techniques and ALARP Application

Topic 3: Hazard Analysis Tools: HAZID, HAZOP, Bowtie, FMEA

**Topic 4:** Asset Integrity and Preventive Maintenance

**Topic 5:** Permit-to-Work and Safe Work Systems

**Topic 6:** Best Practices in Shift Handover and Communication

Reflection & Review: Case Review of Process Safety Events

#### **Day 3: Hazard Control and Operational Safety**

**Topic 1:** Developing and Using Operating Procedures

**Topic 2:** Safe Startup, Shutdown, and Alarm Management

**Topic 3:** FARSI Model for Safety-Critical Equipment

**Topic 4:** Utilities Management in High-Risk Facilities

**Topic 5:** Electricity and Static Discharge Control

**Topic 6:** Contractor Safety Management and Evaluation

Reflection & Review: Workshop on Operational Safety Gaps

#### Day 4: Chemical Hazards, Storage, and Compliance

**Topic 1:** Hazardous Material Properties and Behaviors

Topic 2: Thermal Runaway: Causes and Controls

**Topic 3:** Bulk Storage Tank Safety and Bunding Standards

**Topic 4:** Fire Protection for Chemical Storage Sites

**Topic 5:** Regulatory Frameworks e.g., COMAH Equivalent Standards

**Topic 6:** Safe Warehousing Practices and Segregation

Reflection & Review: Scenario-Based Chemical Hazard Assessment



#### **Day 5: Fire, Explosion Risk & Emergency Preparedness**

**Topic 1:** Fire Dynamics and Explosion Types

**Topic 2:** Fire Detection and Protection Systems

Topic 3: Dust Explosion Prevention and Area Zoning

**Topic 4:** Emergency Planning and Response Scenarios

Topic 5: Public Safety Communication and Evacuation Drills

**Topic 6:** Final Case Study + Exam Simulation if applicable

**Reflection & Review:** Participant Feedback and Closing Summary

#### **FAQ**

#### Do participants need any prior qualifications before attending?

No formal prerequisites are required. However, a basic understanding of occupational health and safety principles is recommended.

#### How long is the course, and what is the daily schedule?

The course spans 5 days with daily sessions lasting 4–5 hours, including breaks and interactive segments. Total contact hours: 20–25.

#### What is the FARSI model and how is it applied?

The FARSI model Functionality, Availability, Reliability, Survivability, Interdependency is used to assess safety-critical systems and ensure equipment integrity in high-risk scenarios.

#### **What Makes This Course Unique?**

This training program goes beyond standard theory by offering practical, results-driven learning tailored to high-hazard industries. Participants engage in hands-on workshops and scenario-based exercises HAZOP, Bowtie, FMEA, simulating the decision-making pressures of real-world process incidents. The program is aligned with international safety frameworks and customized for applicability across various sectors — ensuring each learner leaves with actionable tools and a deeper operational safety mindset.



### **Training Course Categories**



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Agile PM and Project Management Training Courses



Certified Courses By International Bodies



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Data Analytics Training and Data Science Courses



Environment & Sustainability Training Courses



Governance, Risk and Compliance Training Courses



Human Resources Training and Development Courses



IT Security Training & IT Training Courses



Leadership and Management Training Courses



Legal Training, Procurement and Contracting Courses



Maintenance Training and Engineering Training Courses



## **Training Course Categories**



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Personal & Self-Development Training Courses



Quality and Operations Management Training Courses



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## WHO WE ARE

Agile Leaders is a renowned training center with a team of experienced experts in vocational training and development. With 20 years of industry experience, we are committed to helping executives and managers replace traditional practices with more effective and agile approaches.

## **OUR VISION**

We aspire to be the top choice training provider for organizations seeking to embrace agile business practices. As we progress towards our vision, our focus becomes increasingly customer-centric and agile.

## **OUR MISSION**

We are dedicated to developing valueadding, customer-centric agile training courses that deliver a clear return on investment. Guided by our core agile values, we ensure our training is actionable and impactful.

## WHAT DO WE OFFER

At Agile Leaders, we offer agile, bite-sized training courses that provide a real-life return on investment. Our courses focus on enhancing knowledge, improving skills, and changing attitudes. We achieve this through engaging and interactive training techniques, including Q&As, live discussions, games, and puzzles.





#### **CONTACT US**





