



OIL AND GAS | OG-043

Process Safety Management in Oil and Gas Operations

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Course content

Why Attend

Major accidents in oil and gas facilities are usually caused by failures of process safety rather than personal safety. Fires, explosions and toxic releases have shown repeatedly that strong process safety management is essential to protect people, assets and reputation.

This Aractech course explains the elements of process safety management and how to apply them in upstream and downstream operations, including hazard identification, risk assessment, barrier management, mechanical integrity, management of change, operating procedures, process safety culture and performance indicators. Participants analyse major accident case studies and develop practical improvement actions.

Course Methodology

- Major accident case studies
- Bow-tie and barrier workshops
- Management of change exercises
- Indicator design activities
- Group discussions

Course Objectives

- Explain process safety and its difference from occupational safety
- Apply the elements of a process safety management system
- Identify hazards and use barrier-based risk management
- Manage mechanical integrity and management of change
- Use process safety performance indicators
- Strengthen process safety leadership and culture

Course content

Target Audience

- Operations and production managers
- Process and facility engineers
- HSE and process safety professionals
- Maintenance and integrity engineers

Course outline

Detailed course outline

Day-by-day outline for Process Safety Management in Oil and Gas Operations.

Day 1 - Process Safety Fundamentals

- 09:00-09:39 | Process safety versus personal safety
- 09:39-10:18 | Lessons from major accidents
- 10:18-10:57 | Regulatory frameworks
- 10:57-11:00 | Elements of PSM
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Elements of PSM (continued)
- 12:05-12:43 | Process safety culture
- 12:43-14:00 | Case study: A major refinery accident

Day 2 - Hazard Identification and Risk

- 09:00-09:39 | Hazard identification techniques
- 09:39-10:18 | Risk assessment approaches
- 10:18-10:57 | Bow-tie analysis
- 10:57-11:00 | Barrier management
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Barrier management (continued)
- 12:05-12:43 | Layers of protection
- 12:43-14:00 | Workshop: Bow-tie for a critical hazard

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Day 3 - Operational Controls

- 09:00-09:39 | Operating procedures
- 09:39-10:18 | Mechanical integrity
- 10:18-10:57 | Management of change
- 10:57-11:00 | Permit to work interfaces
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Permit to work interfaces (continued)
- 12:05-12:43 | Contractor management
- 12:43-14:00 | Exercise: Management of change review

Day 4 - Performance and Learning

- 09:00-09:39 | Leading and lagging indicators
- 09:39-10:18 | Incident investigation
- 10:18-10:57 | Learning from incidents
- 10:57-11:00 | Audits and assurance
- 11:00-11:30 | Coffee break
- 11:30-12:05 | Audits and assurance (continued)
- 12:05-12:43 | Emergency preparedness
- 12:43-14:00 | Workshop: Designing PSM indicators

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Day 5 - Leadership and Culture

- 09:00-09:45 | Process safety leadership
- 09:45-10:30 | Human factors
- 10:30-11:00 | Communicating risk
- 11:00-11:30 | Coffee break
- 11:30-11:45 | Communicating risk (continued)
- 11:45-12:30 | Embedding PSM
- 12:30-13:15 | Improvement planning
- 13:15-14:00 | Capstone: Process safety improvement plan

Seminar dates

Available seminar dates

Live dates and pricing for Process Safety Management in Oil and Gas Operations generated from the course details page.

Date	Location	Format	Fee
2 - 6 November 2026	Paris	Classroom	€3,825
21 - 25 December 2026	Frankfurt	Classroom	€1,875
18 - 22 January 2027	Munich	Classroom	€3,225
15 - 19 February 2027	Amsterdam	Classroom	€2,830
15 - 19 March 2027	Geneva	Classroom	€4,315
19 - 23 April 2027	Istanbul	Classroom	€1,978
17 - 21 May 2027	Vienna	Classroom	€3,225
21 - 25 June 2027	Barcelona	Classroom	€2,815
19 - 23 July 2027	Cape Town	Classroom	€1,625
16 - 20 August 2027	Frankfurt	Classroom	€1,875

Seminar dates

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20 - 24 September 2027	Munich	Classroom	€3,225
18 - 22 October 2027	Amsterdam	Classroom	€2,830
15 - 19 November 2027	Geneva	Classroom	€4,315
20 - 24 December 2027	Istanbul	Classroom	€1,978
2 - 6 November 2026	Online / Live	Online / Live	€1,815
21 - 25 December 2026	Online / Live	Online / Live	€1,815
18 - 22 January 2027	Online / Live	Online / Live	€1,815
15 - 19 February 2027	Online / Live	Online / Live	€1,815
15 - 19 March 2027	Online / Live	Online / Live	€1,815
19 - 23 April 2027	Online / Live	Online / Live	€1,815

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21 - 25 June 2027	Online / Live	Online / Live	€1,815
19 - 23 July 2027	Online / Live	Online / Live	€1,815
16 - 20 August 2027	Online / Live	Online / Live	€1,815
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