

HAZOP, HAZID, AND RISK ASSESSMENT FOR REFINERY STAFF

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|--------------------|------------|---------------------|------------|
| Start Date: | 09/11/2026 | End Date: | 13/11/2026 |
| Categories: | Oil & Gas | Venues: | Barcelona |
| Formats: | In Person | Instructors: | |

OVERVIEW

This course equips refinery staff with practical knowledge and tools to conduct HAZOP, HAZID, and risk assessments. It emphasizes systematic hazard identification, consequence analysis, and implementation of risk mitigation strategies aligned with global process safety standards.

OBJECTIVES

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

- Understand the principles of HAZOP, HAZID, and qualitative/quantitative risk assessment.
- Lead or contribute effectively to hazard identification workshops.
- Analyze scenarios for consequence severity and likelihood.
- Recommend and document risk reduction measures.
- Align refinery risk assessments with regulatory and company standards.

COURSE OUTLINE

1. Process Safety Overview and Risk Management Concepts
2. HAZID Methodology: Pre-Design and Conceptual Phase
3. HAZOP Methodology: Design and Operational Phase
4. Risk Assessment Tools: LOPA, Bowtie, and Risk Matrix
5. Workshop Facilitation, Documentation, and Follow-Up

TARGET AUDIENCE

Refinery engineers, HSE officers, technical staff, and operational leads involved in hazard identification and risk management.

METHODOLOGY

HAZOP/HAZID simulations, group-based workshops, risk analysis tools, and guided documentation sessions.

CONCLUSION

Participants will be capable of actively supporting or leading structured HAZOP and HAZID studies while applying risk assessment tools in refinery safety management.

DAILY AGENDA

Day 1: Foundations of Process Risk Management

Overview of safety management systems, process hazards, and risk models.

Day 2: HAZID: Early Phase Hazard Identification

Conducting HAZID during project concept and front-end design stages.

Day 3: HAZOP: Design and Operational Risk Review

Structured methodology for scenario-based risk review in operations.

Day 4: Risk Analysis Tools and Techniques

Applying LOPA, Bowtie, and risk matrices to evaluate and prioritize risk.

Day 5: Workshop Execution and Reporting

Facilitating sessions, documenting findings, and tracking mitigation actions.

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