

Hazard & Operability HAZOP Study Management Course

Day 1: Introduction to Process Hazard Analysis and HAZOP

Key Topics:

Introduction to process safety and risk assessment methods

Overview of Process Hazard Analysis (PHA) techniques

Fundamentals of the HAZOP methodology

History, purpose, and scope of HAZOP studies

Regulatory drivers (OSHA PSM, COMAH, etc.)

Day 2: HAZOP Methodology and Process Understanding

Key Topics:

Process understanding: P&IDs, PFDs, line lists, and control narratives

Identifying nodes and defining study boundaries

HAZOP guidewords and parameters

Common deviations, causes, consequences, safeguards, and recommendations

Roles and responsibilities of the HAZOP team

Day 3: Conducting and Facilitating a HAZOP Study

Key Topics:

HAZOP session workflow and management

Facilitator's role, techniques, and best practices

Recording and documentation tools

Handling team dynamics and technical disagreements

Use of software (e.g., PHA-Pro, Dyadem, HAZOP Manager)

Day 4: HAZOP Reporting, Follow-Up and Action Tracking

Key Topics:

Writing clear and actionable HAZOP reports

Categorizing risk levels using Risk Matrices or LOPA

Ensuring follow-up and closure of HAZOP actions

Integration with safety management systems (SMS)

Review and update cycles of HAZOP studies

Day 5: Advanced Topics, Case Studies, and Final Assessment

Key Topics:

HAZOP in different industries (oil & gas, chemical, pharma, energy)

Managing revalidation studies and dealing with legacy systems

Common pitfalls and how to avoid them

Linking HAZOP with PSM, design, and change management

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