XCELERATE TRAINING INSTITUTE

your learning & development partner

HEALTH, SAFETY AND ENVIRONMENT (HSE)

HAZOP and Process Hazard Analysis (PHA) Leader Training Course

DURATION	LANGUAGE	FORMAT
5 days	**English**	**Classroom / Online**

Upcoming dates

Dates	Venue	Format	Fee
4 – 8 Jan 2027	Live online	Online (live)	**€1,200**
8 – 12 Feb 2027	Berlin	Classroom	**€4,800**
12 – 16 Jul 2027	Live online	Online (live)	**€1,200**

Register or ask a question

Online: staging.x8ti.com/course/hazop-and-process-hazard-analysis-pha-leader…

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HAZOP and Process Hazard Analysis (PHA) Leader Training Course

Introduction

Introduction

This Xcelerate Training Institute program provides detailed instructions on how to carry out an effective HAZOP study and where PHA methods fit into the overall process safety management work process. It helps prepare individuals to learn and facilitate PHA teams. In addition to receiving expert instruction on the technical and managerial procedures involved with leading a PHA team, you will also be allowed to form teams and take turns leading the team.

What tools and techniques will I learn in this “HAZOP and Process Hazard Analysis (PHA) Leader Certification Training Course”? In this course, you will learn how to use the failure mode and effects analysis (FMEA) method and how to use checklists of hazards to supplement your brainstorming analyses.

You will also be able to identify the best situations and circumstances to use each technique while leading and participating in practice analysis activities to acquaint yourself with all and different technique.

This Xcelerate Training Institute course will teach you the practical methods of performing Process Hazard Analysis (PHA) using hazard and operability (HAZOPs) software, what-if analysis, and checklist analysis techniques that satisfy federal regulatory requirements.

Learning Objectives

- Gain an in-depth understanding of what a HAZOP and PHA system does
- Understand why there is a need for a HAZOP and PHA system
- Define HAZOP and PHA and their role to avoid major accidents in the process industry
- Answer questions like:
- What is HAZOP?
- Why HAZOP?
- How to implement HAZOP and when?
- How to lead a HAZOP study?
- How to close-out a HAZOP review?
- Act as a HAZOP lead and provide support towards your company’s HAZOP and PHA process
- Practice PHA studies using the HAZOP and “What-If” techniques
- Discover the tactics, best practices, and success factors that lead to a successful PHA study
- Understand the meaning of design intent in HAZOP studies
- Use guide words and parameters in HAZOP studies
- Use risk matrices to rank risks
- Depict the importance of addressing common cause failures

- Define the meaning of enabling events/conditions
- Practice how to address human factors in PHA studies

Training Methodology

- Lectures
- Seminars & Presentations
- Group Discussions
- Assignments
- Case Studies & Functional Exercises

Benefits For Your Organization

Companies who nominate their employees to participate in this HAZOP and Process Hazard Analysis (PHA) Leader Certification Training Course can benefit in the following ways:

- Benefit from training your employees on the definition and importance of process safety information, along with the different roles played in the PHA
- Document your process safety information systematically and efficiently
- Improve productivity by teaching your staff about the PHA work process and how it fits into the overall organizational work processes

Benefits For You

Individuals who participate in this HAZOP and Process Hazard Analysis (PHA) Leader Certification Training Course can gain from it in the following ways:

- Learn how to perform a PHA study from experienced professionals: collecting information, selecting the team, leading a meeting, and documenting the results
- Focus on human factors issues to analyze procedures in areas such as start-up, shutdown, and maintenance
- Get an opportunity to work through hands-on exercises in detail to gain the skills needed to facilitate a HAZOP study
- Gain the ability to plan, manage, facilitate, and scribe for a HAZOP study

Target Audience

- Those involved in the:
- Management,
- Engineering (design, process, chemical, facilities, instrumentation, and controls),
- Operations, and
- Safety of process operations
- Engineers (Chemical, Mechanical, Process, Pressure Vessel, Piping, Electrical)
- Process safety/risk managers
- Facility managers
- Safety/environment personnel
- Plant operators
- Area managers

- Maintenance personnel

Course Outline

INTRODUCTION

- Overview of PHA
- PHA Regulatory Requirements
- What-If Studies
- HAZOP Studies
- Preparing and Organizing PHA Studies

DESIGN & REVIEW

- Inherent Safety Review
- Subdividing the Process for Study
- Design Intent, Parameters, and Deviations
- Completing the PHA Worksheet
- Recording PHA Studies

HAZARDS IDENTIFICATION METHODOLOGIES

- Investigating WHAT to do WHEN
- What If/Checklist variations
- Process modifications
- Procedural HAZOP
- Methodologies and their uses
- HAZOP – Avoiding traps and enhancing productivity
- Preparation of checklists
- FMEA application and execution
- Preliminary Hazards Analysis: application and execution
- Choice of hazards identification technique

REGULATORY & LEADERSHIP REQUIREMENTS

- Meeting Regulatory Requirements
- Leadership Skills for Managing the Team
- Management of PHA Studies
- Human Factors in PHAs
- Facility Sitting in PHAs

UTILITIES & OPERATION

- Treating Utilities
- Handling Multiple Modes of Operation
- PHA for Process Changes
- PHA for Procedures
- PHA for Batch Processes

QUALITY CONTROL

- Quality Control in PHA Studies
- PHA Report Preparation
- Managing the Follow-Up of PHA Results
- Planning PHA Revalidations
- Conducting PHA Revalidations
- Documenting PHA Revalidations

TEAM LEADERSHIP & EXECUTION

- Qualitative and quantitative risk assessment
- Establishing purpose, overcoming opposition, driving forces
- Choice of PHA to be used and factors in determining the choice
- Estimation of scheduling requirements
- Preparation for PHA sessions
- Thoroughness of analyses
- PHA Leadership: Responsibility and why it requires emphasis?
- Seven key points for exercising responsibility
- List of steps for performing PHAs
- Handling recommendations
- Auditing of PHAs
- Conducting PHA sessions
- Preparation of PHA reports

PHA DOCUMENTATION CONTROL & REPORT GENERATION

- Recording hazard evaluations
- Defining risk matrices
- Documenting recommendations
- Generating reports
- Creating custom libraries
- Creating a PHA Corporate Template
- Document protection and tracking document changes

ADVANCED PHA TOPICS

- Types of HAZOPs
- Improving productivity and efficiency of HAZOPs
- Optimization of node sizes — pros and con’s
- Improving productivity and efficiency of HAZOPs
- Method for deriving deviations
- Creation of checklists
- Human factors
- Management of Change (MOC)
- What qualifies for MOC?
- Minimizing hazards through improved layout

- Explosion modelling
- PSI (Process Safety Information).

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Registration Form

HAZOP and Process Hazard Analysis (PHA) Leader Training Course

Preferred dates: ..... Venue or online: .....

Duration: 5 days Language: .....

Please complete and email this form to us, or register online. We confirm your place and send the invoice within one working day.

Delegate information

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

Official email: ..... Personal email: .....

Company information

Company name: .....

Address: .....

City / country: ..... VAT / tax number: .....

Person responsible for training & development

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

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Payment

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Register online
Open the course page