



Health, Safety and Environment

Process Hazard Analysis

Course Introduction

OSHA expects that process hazard analysis (PHA) team leaders be qualified to lead PHAs using such methods as the hazard and operability (HAZOP) study.

This course helps prepare team leaders to facilitate PHA study teams. In addition to receiving expert instruction on the technical and managerial procedures involved with leading a PHA team, you'll form a study team with other participants and take turns leading the team. This workshop exercise is overseen by an instructor who will give feedback on your performance.

Upon completing this course you will receive certification of training to satisfy OSHA's requirements for PHA team leaders.

The course provides you with specific detailed guidelines for facilitating PHA studies, including PHA Revalidations, which you will practice in workshop sessions. Participants discover the tactics and success factors that help ensure a successful study.

Target Audience

- Engineers and others responsible for leading PHA studies.

Learning Objectives

The main aim of this program is to equip participants in order for them to organize and lead process hazard analysis studies, including PHA Revalidations, using the HAZOP and "What-If" techniques.

Course Outline

• DAY 01

Overview of PHA

- Hazard Scenarios
- PHA Regulatory Requirements
- Hazard Identification, HAZID
- PHA Methods Overview
- Checklist
- What-If
- Hazard and Operability (HAZOP)
- Failure Modes and Effects Analysis (FMEA)
- Fault Tree Analysis (FTA)
- Major Hazards Analysis (MHA)
- Preliminary Hazard Analysis (PrHA)
- Event Tree Analysis (ETA)
- Cause/Consequence Analysis (CCA)
- Bow Tie Analysis (BTA)

• Day 02

Process Hazard Review (PHR)

- Preparing and Organizing PHA Studies
- Subdividing the Process for Study
- Inherent Safety Review
- The First Session
- Completing the PHA Worksheet
- Team Leader Role and Responsibilities
- Recording PHA Studies
- Design Intent, Parameters and Deviations
- Causes
- Events
- Consequences
- Safeguards
- Enablers
- Risk Ranking
- Recommendations

- Overall Guidelines
- Meeting Regulatory Requirements
- Leadership Skills for Managing the Team
- Management of PHA Studies
- Multiple Failures in PHA
- Human Failures and Human Factors in PHAs
- Facility Siting in PHAs

• Day 03

Utilities and Support Systems in PHA

- Modes of Operation in PHAs
- PHA of Process Changes
- PHA for Batch Processes
- Quality Control in PHA Studies
- PHA Revalidation Overview
- Preparing for PHA Revalidations
- Conducting and Documenting PHA Revalidations
- PHA Report Preparation
- Managing the Follow-Up of PHA Results

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
Dec. 29, 2025	Jan. 2, 2026	5 days	3250.00 \$	UAE - Dubai
May 26, 2025	May 28, 2025	3 days	3950.00 \$	Spain - Madrid
Sept. 22, 2025	Sept. 26, 2025	5 days	3250.00 \$	UAE - Dubai