



HAZOP Professional Study

Duration 5 Days

Introduction

HAZard and OPerability Studies (HAZOP) are recognized everywhere as a powerful hazard identification technique that can be applied to both new and existing processes, procedures and activities. HAZOP Studies are now standard in industries handling hazardous materials and are widely used in other industries.

A major benefit of HAZOP is the early identification of potential operational problems, which can save money, time and lost production at the commissioning and operating stages of all new projects. It is therefore crucial to obtain a sound knowledge of this technique.

Who Should Attend

This HAZOP Awareness/Orientation Workshop is intended for candidates requiring the knowledge of the principles of systematic HAZOP Studies in any private or public organization.

Course Objectives

Upon completion this program Participants will be able to:

- ✧ Raise the safety awareness and understanding of why accidents happen and how to prevent them
- ✧ Provide and practice a selection of hazard identification and risk assessment tools that can be used in the workplace
- ✧ Offer sufficient knowledge in HAZOP techniques to be able to actively participate in factory and plant HAZOP Studies
- ✧ Practice the application of HAZOP skills and techniques in small groups
- ✧ Understand the concepts of human error and why mistakes are made
- ✧ Understand of the need for job safety procedures and best operating practices and how to implement them
- ✧ Understand the techniques of designs that are inherently safe

Course Outlines:

1. Risk Concepts & Introduction to Process Hazards Analysis

The first module presents the basic groundwork on HAZOPs, including recommended reporting methods, tracking, resolutions as well as HAZOP variations:

- 1.1. Concepts of risk and risk terminology
- 1.2. Hazards identification methodologies and techniques
- 1.3. Process Hazards Analyses — How, When, Why (Process Safety Management PSM).
- 1.4. Industrial incidents of major significance

2. Module Two - Hazards Identification Methodologies

The second module investigates WHAT to do WHEN, with respect to the different processes, focusing on HAZOP, process modifications, procedural HAZOP and examples:

- 2.1. Factors in determining choice
- 2.2. Methodologies and their uses
- 2.3. HAZOP — Guide Word and Knowledge Based — plus pitfalls
- 2.4. Application and execution of HAZOP, avoiding traps and enhancing productivity
- 2.5. Human Factors: through PHA



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3. **Module Three - Team Leadership & Execution**

The third module provides the broad picture of both qualitative and quantitative risk assessment:

- 3.1. PHA Leadership: Responsibility and why it needs emphasis
- 3.2. Establishing purpose, overcoming opposition, driving forces
- 3.3. List of steps for performing PHAs
- 3.4. Handling recommendations
- 3.5. Thoroughness of analyses

4. **Module Four - PHA Documentation Control/Report Generation**

- 4.1. Recording hazard evaluations
- 4.2. Defining risk matrices
- 4.3. Documenting recommendations
- 4.4. Creating custom libraries
- 4.5. Generating reports