

HAZARD AND OPERABILITY STUDY (HAZOP)

Training Instructors

Mr. Shahid Saleem | Mr. Muhammad Siddiq





Overview

HAZOP is a systematic and structured technique used mainly in engineering, chemical, petrochemical, oil & gas, pharmaceutical, and manufacturing industries to identify

- 1. Hazards – things that could cause harm (safety, health, environment, assets).**
- 2. Operability problems – issues that might prevent the system, plant, or process from working as intended (production losses, quality issues, inefficiencies).**
- 3. HAZOP is the most effective hazard and risk management techniques among the six techniques recommended for Process Safety Management (PSM) by US Occupational Safety and Health Administration (OSHA).**



Why Us?

We deliver industry-focused training that empowers professionals and organizations to achieve operational excellence. Each program is customized to client needs, ensuring practical relevance and measurable results.

Our expert trainers bring real-world insights, industrial case studies, sharing their experiences and best practices to every session. We create engaging, actionable learning experiences that bridge the gap between theory and practice.

Training objectives

1. To provide comprehensive understanding of HAZOP study.
2. To enable the participants to carry out HAZOP studies at their workplace without any outside assistance.

Target Audience

Engineers and supervisors who are involved in plant operations, repair & maintenance process safety, projects and modifications.

01 Process Safety Management

Overview of the 14 elements of OSHA's Process Safety Management.

02 Process Hazard Analysis (PHA)

Overview of the third element of PSM i.e. PHA. Introduction and comparison of 6 techniques recommended by OSHA for PHA.

03 Understanding Process Hazards

What is a hazards? How can we identify hazards? Hazards and energy relation.

04 Hazard and Operability Study

How hazards are linked with operability. Merits and limitation of HAZOP study

05 HAZOP Procedure

Study of continuous and batch processes. What variable to apply. How to make nodes.

06 HAZOP Methodology

How to form HAZOP teams and keep records.

07 HAZOP Variations

Variants of HAZOP techniques used for specific needs

08 HAZOP of Procedures

How to carry out HAZOP of procedures.

09 Risk Assessment

Difference between hazard and associated risk. Qualitative and quantitative Risk assessment



TRAINING TOPICS

Trainers



Mr. Shahid Saleem
Senior Trainer & Consultant

Mr. Shahid Saleem is a seasoned chemical engineer with over 32 years of experience in leadership, plant operations, process safety, and industrial training within Pakistan's fertilizer sector. A graduate of the University of the Punjab, he has held key roles at Fauji Fertilizer Company, including Training Manager and Production Manager, where he led critical projects such as plant debottlenecking, DCS migration, and major equipment overhauls. Trained internationally in process safety and operations management, Mr. Saleem has also delivered specialized training to major organizations such as Unilever, Attock Refinery, and Packages Ltd., cementing his reputation as a skilled trainer and safety expert.



Mr. Muhammad Siddiq
Senior Trainer & Consultant

Mr. Muhammad Siddiq is a highly experienced Chemical Engineer and certified Technical Instructor with over 34 years of service at Fauji Fertilizer Company Ltd. His expertise spans plant operations, process optimization, and comprehensive workforce training across national and multinational industries. A PEC-registered Professional Engineer, he has delivered over 100 technical and soft skills sessions, designed skill enhancement programs, and mentored aspiring engineers through career development initiatives. Known for his hands-on, interactive training approach rooted in adult learning principles, Engr. Siddiq is dedicated to capacity building and continues to empower professionals with leadership, communication, and operational excellence.

Duration

02 Days (Excluding HAZOP of procedures)

03 Days (Including HAZOP of procedures)

Location

At Client's Site / Lahore

Training Instructors

Mr. Shahid Saleem | Mr. Muhammad Siddiq

Get in Touch

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