



HSE100

Process Safety & Hazard Analysis

Course Introduction:

The risk review techniques most popular for initial PHAs of entire units or of large projects and PHA revalidations are hazard and operability (HAZOP) analysis and what-if/checklist. Both of these techniques facilitate systematic, imaginative searches for process hazards and potential operational difficulties.

The Course focuses on human factors issues and how to analyze for human errors that can occur in step-by-step procedures.

Course Objectives:

Upon successful completion of this course, the delegates will be able to:

- Practice leading and participating in several analysis and to be familiarize with the techniques or the original form of the HAZOP techniques for effective analysis of procedures of startup, shutdown, normal batch operation, emergency operation, etc.
- Perform a process hazard analysis with the critical elements that includes preparation of the PHA, scope, collecting information, selecting team and etc.
- Apply the methods of HAZOP, FMEA, and/or WHAT-IF/checklist analysis to process systems

Who Should Attend?

This course is intended for those who have particular interest to new engineers and supervisors.

Course Outline:

Day 1:

How to Perform a PHA including these Critical Elements

- Preparing for the PHA
- Scoping the PHA
- Collecting information

Day 2:

How to Perform a PHA including these Critical Elements (cont'd)

- Selecting the team
- Leading a meeting
- Documenting results



Day 3:

How to Analyze Operating Procedures for Critical Accident Scenarios

Day 4:

How and When to Apply HAZOP, FMEA, and/or What-If/Checklist Analysis

Methods to Process Systems such as Chemical and Petroleum

Day 5:

Experience via Realistic Workshops

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work
- Discussion
- Presentation

Course Fees:

To be advised as per the course location. This rate includes participant's manual, and-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last Session

