



*Training Course:
Advanced Hazard and Operability (HAZOP)
Process*

*26 - 30 July 2027
Madrid (Spain)*

Training Course: Advanced Hazard and Operability (HAZOP) Process

Training Course code: HE7018 From: 26 - 30 July 2027 Venue: Madrid (Spain) - Training Course Fees: 6300 € Euro

Introduction

A proactive risk management approach is vital for business success, with Process Hazard Analysis PHA playing a key role in mitigating risks in hazardous industries. HAZOP studies are now the preferred qualitative risk assessment method in the process industries. This program teaches advanced risk assessment techniques, dispersion, fire, explosion, and toxic release mechanics, Quantified Risk Assessment QRA concepts, HAZOP methodology, and team leadership skills.

Objectives

- Understand the concepts of Risk Assessment and Risk Management
- Understand the estimation and evaluation of risks - Qualitative, Semi-Quantitative, and Quantified Risks
- Techniques for Hazard Identification and Analysis - Check-Lists, Risk Profiling, HAZOP, FMEA, and Task-Based Risk Assessment
- Cause-Consequences Analysis - The Role of Fault Trees and Event Trees in Accident Prevention
- Understand HAZOP studies their benefits and their shortcomings
- Understand the requirements of a Team Leader or Facilitator, scribe, and team members during HAZOP studies
- Be able to facilitate a HAZOP study

Target Audience

- HSE Engineers and Safety Professionals
- Process Engineers
- Project Engineers
- Operations and Production Personnel
- Maintenance Engineers and Supervisors
- Instrumentation and Control Engineers
- Technical Managers and Supervisors
- Risk Management Professionals
- Plant and Facility Engineers
- Professionals involved in Process Safety and Risk Assessment

Outlines

DAY 1: Introduction to Risk Assessment

- Course introduction: delegate and tutor introductions; course objectives
- The concepts of hazards, risk, and risk assessment
- Methods for risk evaluation
- Integrating risk assessment within Risk Management
- Qualitative, Semi-Quantitative, and Quantitative Risk Assessment methodologies
- Feedback and review of Day 1

DAY 2: Hazop Leadership Techniques

- HAZOP team leader/facilitator requirements
- HAZOP scribe requirements
- Facilitating HAZOP studies, do's and don'ts
- Information required to allow successful HAZOP studies
- A case study where each delegate has the opportunity to facilitate a HAZOP meeting
- Review of commercial software used for HAZOP and Management of Change "MOC"
- Report back and review Day 2

DAY 3: Risk Assessment Techniques: HAZOP

- Introduction to hazards identification and analysis techniques
- Techniques for hazard identification and analysis - HAZOP
- Where and when to use HAZOP and the requirements for a successful HAZOP study
- Team composition for HAZOP studies
- Guide words and process variables used for HAZOP studies
- Syndicate exercise - application of HAZOP to relevant processes
- Report back and review Day 3

DAY 4: Consequence Analysis

- The theory behind the fire, explosion, and toxic dispersion modeling utilized the in Quantitative Risk Assessments
- Types of fires and their effects on people and equipment
- Types of explosions and their effects on people and equipment
- Review of software available for consequence calculations
- Report back and review Day 4

DAY 5: The Role of QRA

- Introduction to Quantified Risk Assessment [QRA]
- The role of Event Tree Analysis in scenario development
- The role of Fault Tree Analysis for multi-causation analysis
- Applications for ETA and FTA
- Failure data for use in QRA's
- Societal Risk and Individual Risk
- Review of software available for Quantitative Risk Assessments
- Report back on day 5 and discussion
- Programme review and the way ahead

Registration form on the Training Course: Advanced Hazard and Operability (HAZOP) Process

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

Delegate Information

Full Name (Mr / Ms / Dr / Eng):
 Position:
 Telephone / Mobile:
 Personal E-Mail:
 Official E-Mail:

Company Information

Company Name:
 Address:
 City / Country:

Person Responsible for Training and Development

Full Name (Mr / Ms / Dr / Eng):
 Position:
 Telephone / Mobile:
 Personal E-Mail:
 Official E-Mail:

Payment Method

- ☐ Please find enclosed a cheque made payable to Global Horizon
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3 Oudai street, Aldouki,
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