

H S E

HEALTH

SAFETY

ENVIRONMENT



Contact us

Website: <https://btsconsultant.com/>

Email: info@btsconsultant.com

UAE office Tel: +971 26446633

Egypt Office Tel: +2 0502308081

Certified HAZOP Leaders: Preparation, Assessment and Certification

Duration: 5 Days



Introduction:

HAZOP, or Hazard and Operability Studies is the principle risk assessment technique used for new projects and process modifications and to comply with the Management of Change 'MOC'. It is also used to demonstrate compliance with health, safety and environmental standards

and Management System. HAZOP is a highly structured technique, designed to meet the requirements of OSHA 29 CFR, PSM Regulations and ISO 17776: 2002, which can consume considerable resources to achieve an effective study. Therefore, the role of the Team Leader is crucial in directing resources where they are most needed so that the study duration is targeted for efficiency. In this seminar you will learn how to:

- Improve your practical skills in applying advanced risk assessment techniques
- Improve your practical skills in planning and leading a HAZOP Team
- Prepare HAZOP Reports
- Be familiar with the latest commercial HAZOP software

Who Should Attend?

- Technical personnel who took part in previous HAZOPs as Team members
- Project engineers who have to implement the Project HSE Plan
- Control, electrical, mechanical, maintenance and process engineers
- Personnel involved in Project HSE Reviews
- HSE technical personnel

Training Methodology:

Participants will learn by active participation during the program through the use of exercises, syndicate and group discussion, training videos and discussions on relevant types of HAZOP and "real life" processes in their organizations.

Program Summary:

This program aims to provide hands-on experience in the application of advanced risk assessment techniques with particular emphasis on HAZOP. You will be prepared and certified as HAZOP Team Leader, who is capable of planning and conducting different types of effective HAZOPs. The programme will guide to in preparing HAZOP reports and the use of latest commercial HAZOP software. You will appreciate different types of fires and explosions as potential consequences of hardware failures and human error.

Certificate:

An examination is held on the final day and successful delegates will be awarded the was accuse certificate in addition BTS attendance certificate will be issued to all attendees completing minimum of 80% of the total course duration

Course Objectives:

By the end of this course delegates will be able to:

- Describe a framework for HAZOP within risk assessment and HSE Management System
- Review the role of HAZOP within projects HSE plan
- Increase familiarity with HAZOP protocol, logic, structure and methodology
- Describe the role and structure of the HAZOP Team and procedures
- Be familiar with the role, responsibilities and conduct of HAZOP Team Leader, scribe and team members
- Undertake sufficient hands-on experience in the application of HAZOP to different processes, systems and machinery
- Appreciate the application of HAZOP methodology in other areas of interest, e.g. human reliability and human HAZOP
- Be familiar with the consequences of flammable/toxic releases, fire and explosion- dispersion modeling

Course Outline:

DAY 1 - Introduction to Risk Assessment

- Program introduction: delegate and tutor introductions; programme objectives
- The concepts of hazards, risk and risk assessment
- Human contribution to accidents- Piper Alpha disaster
- Methods for risk evaluation
- Integrating risk assessment within Risk Management
- Semi-quantitative risk assessment techniques

- Risk assessment framework: The role of HAZOP

DAY 2 - HAZOP Protocol and Methodology

- HAZOP Methodology- roles and responsibilities
- Information needed for HAZOP
- Stages of HAZOP Study: 1. Initial meeting 2. Introduction 3. Terms of Reference 4. Scope of the Review 5. HAZOP Team composition and roles 6. HAZOP Timetable 7. General conduct of the review 8. Report preparation 9. Mechanism for follow-up and review
- HAZOP Guide-words
- HAZOP Workshop 1

DAY 3 - Types of HAZOP: Continuous and Batch Processes

- Feedback from HAZOP Workshop 1
- The role of HAZOP in Projects HSE Plans
- Stages of Project HSE Review
- The role and responsibilities of HAZOP Team Leaders
- Conduct of HAZOPS by Team Leaders and Secretaries
- HAZOPs for continuous and batch processes
- HAZOP Software- DNV and Dyadem commercial software
- HAZOP Workshop 2

DAY 4 - Task based HAZOP

- HAZOP Workshop 2 Report back
- Human error classification
- HAZOP and human error
- Human factors and accident causation
- Introduction to Task Analysis
- Task-based HAZOP procedures
- HAZOP Workshop 3
- Preparation of HAZOP Reports and follow-up actions

DAY 5 - Analysis of the Consequences

- Analysis of the consequences of fire, explosions and toxic releases
- Mechanics of fire and explosion

- Dispersion Modeling software
- The link between HAZOP and emergency planning
- The link between HAZOP and Quantified Risk Assessment 'QRA'
- Discussion of the conduct of Team Leaders, Secretaries and Members
- Program review and individual's action