HSE 2020

BTS
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Process Safety and Risk Management of Highly Hazardous – Boot Camp

Duration: 5 Days

Introduction:

This program will enable attendees to better understand the principles of the Risk Management Process within the Process Industry and how to apply Risk Assessment systems to all activities that have the potential to impact upon Health & Safety, Production, Asset, Environment and the company's reputation. Risk Management is the fundamental basis for ensuring that all Risks within an organization have been considered and assessed with control measures implemented to achieve ALARP (As Low as Reasonable Practicable).

The program will give participants a greater understanding of the Process industry and the inherent hazards associated in managing and maintaining a safe system. At the conclusion of this training program, delegates will have the knowledge to:

- Recognize the differences between, Hazards and Risks and understand different Risk assessment techniques
- Understand the Standards within the Process Industry
- Identify external influencers

- Improved understanding of Operating Procedures, SOPs and Safe Systems of Work applicable to the Industry
- Coach and influence people for an improved safety culture
- Value the role the role of Quantified Risk Assessment and Major Hazards within the Process Industry
- Understand the basics of Environment Protection & Risk Management Plans
- Understand the human contribution to accidents.

Pre-requisite

Previous experience with applying and implementing general Risk Assessment is advantageous as is knowledge of the Process Industry.

Who Should Attend?

The Process Safety & Risk Management training program is intended for all personnel involved in Process Industries such as:

- Production
- Project
- Process
- Mechanical
- Control
- Maintenance
- HSE
- The program is also beneficial for personnel involved in implementing the Company's Health & Safety Management System.

Training Methodology:

Delegates will learn by encouraged and active participation during the training program through the application of blended learning methodologies, including; Presentations, Exercises, Group discussions and Video presentations. Delegates

are encouraged to contribute their own experiences throughout the training program. A number of case studies are used throughout the duration of the training program which summarizes the inherent need for a greater understanding of the risks and hazards associated within the Process Industry.

Course Objectives:

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

- Recognize difference between Hazards, Risks and where HAZOP fits within the Risk Management cycle
- Define what is Process Safety Management (PSM) and who is covered by the standard
- Develop skills for applying Risk Management techniques relevant to the Process Industry
- Understand Major Hazards within the Process Industry, including Fire, Explosion and Toxic release
- List the elements of the PSM standard
- Explain how Process Safety Culture will affect PSM in organizations

Course Outline:

Day1 - The Baseline (Safety Management System)

- OHSAS 18001 and OSHA's new initiative for a Safety & Health Program Management (Guidelines)
- Management commitment and employee involvement
- Worksite analysis
- Hazard prevention and control
- Safety and health training
- Control, Communications, Co-operation and Competence
- Safety Culture
- Behavioral Safety

Day2 - The Frontline (Process Safety Management)

- Introduction to Process Safety Management (PSM)
- Disasters in the Process Industry: What went wrong/What have we learned
- Risk Management Program (RMP)
- PSM Standards
- Employee Participation
- Equipment, Technology and Hazards of the Process
- Mechanical Integrity

Day3 - Risk Assessment in the Process Industry – The HAZOP Study

- Advanced PHA methods within the Process Industry
- HAZOP Study Methodology
- HAZOP Study procedure
- Case Study 1 – Element (Node) selection
- Case Study 2 – Simple HAZOP

Day4 - Process Safety Management and Process Hazard Analysis

- Management of Change
- Safe Systems of Work (SSW)
- Incident Investigation
- Introduction to BP Texas City Refinery accident
- Environment Protection and Risk Management Plans
- PSM Summary

Day5 - Putting it All Together

- Case Study Scenarios
- Delegate Group Activities
- Summary and take homes