

Training Title

ADVANCED PROCESS RISK ASSESSMENT & RISK MANAGEMENT

Training Duration

5 days

Training Date

PE559	Advanced Process Risk Assessment & Risk Management	5	26 Feb - 01 March 2024	\$6,500	London, UK
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In the below 5 star hotel as mentioned. The exact venue will be informed once finalized.

1. Events at Marble Arch

Central Cluster Meetings, Events and Group Sales - The Cumberland Hotel and Thistle Marble Arch

T. +44 (0) 207 523 5060

W. clermonthotel.group | A. Thistle Marble Arch, Bryanston St, Marylebone, London, W1H 7EH

Training Fees

- **\$6,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Buffet Lunch**

Training Certificate

Define Management Consultancy & Training Certificate of course completion will be issued to all attendees.

Language: English

INTRODUCTION:

Modern concepts of Process Safety and Risk Management adopt the risk-based approach to selecting the most appropriate design measures in order to reduce risks to a level that is as low as acceptable, reasonably and practicable.

The Course will focus in the latest and updated technique of risk management efforts such as:

- **Process Hazard Analysis PHA,**
- **Integrity Operation Window IOWs,**
- **Reliability Centered Maintenance RCM and**
- **Risk based inspection RBI**

Integration of these efforts to improve the process risk assessment and risk management, are the key to success of risk management program and maintains the plant availability and reliability.

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The course will provide the most comprehensive, customizable range of safety offering available for risk assessment and risk management.

COURSE OBJECTIVE:

Update the skills on modern concepts of process safety and work equipment safety Standards and Directives

- Help selecting a criteria for integrating health and safety specifications for process and work equipment
- Improve experience in the hazard identification and risk elimination
- Understand the risk management efforts and study the elements of management efforts
- Study the risk management efforts such as Process
- Hazard Analysis, Integrity Operation Window, Reliability
- Centered Maintenance and Risk based inspection
- Ensure the risk efforts application to optimize the plant availability and reliability
- Provide HSE practitioners with a route for gaining the experiences of process hazard analysis PHA, incident investigation root cause analysis RCA as continual improving measure
- To provide participants with an understanding of process and plant auditing as a new technique of incident prevention

WHO SHOULD ATTEND?

The process engineers, reliability engineers, plant supervisors, plant operators and HSE technical personnel. Particularly those who have recently assumed new responsibilities, to increase their technical knowledge for process safety management to become better acquainted with new technologies in the plant safety management. The course will help them to improve the participants' skills and broaden their vision and understanding of the entire safety and risk management

COURSE SCHEDULE

DAY 1

- **Course introduction, oil and gas industry.**
- **Definition of hazard and risk for substances and process**
- **Risk management efforts objectives and elements Process Hazard analysis, Integrity operating window, Reliability Centered maintenance and Risk based inspection RBI**
- **Fire types and toxic release**
- **Process Safety Management, resources and elements**

DAY 2

- **Process hazard analysis PHA for risk assessment and risk management**
- **Process Hazard Review method What If/Checklist method, Failure Mode and Effect Analysis method (FMEA), 3.Hazard and Operability method (HAZOP), Fault Tree Analysis method (FTA)**

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- Elements of process hazard analysis and PHA methodology
- Hazard Identification
- Planning for PHA and PHA team development
- Line of defense and independent protection layer
- Human factors, worst case scenario and consequence analysis

DAY 3

- Incident investigation
- Root cause Analysis as RCA as major tools of risk analysis and risk management
- Root Cause Analysis procedure
- Root Cause Analysis methodology
- Root Cause Analysis team forming

DAY 4

- HAZOP study as major tool of risk assessment and risk management
- HAZOP background and objectives
- HAZOP methodology, strength and guide words
- Benefit of HAZOP

DAY 5

- Risk combinations and Principle of Risk Assessment
- Probability or Likelihood level
- Consequences or Severity level
- Risk matrices
- Quantitative Risk Assessment – QRA and
- Objectives for a QRA study and QRA Consultants
- Qualitative risk analysis

COURSE METHODOLOGY

The training course will be highly participatory and the course leader will present, guide and facilitate learning, using a range of methods including formal presentation, discussions, sector-specific case studies and exercises. Above all, the course leader will make extensive use of real-life case examples in which he has been personally involved. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Case studies & Practical Exercises
- 10% Role Play
- 10% Videos, Software or Simulators (as applicable) & General Discussions

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Case Studies, Group Discussions, Last Day Review, Assessments will be carried out.

MEETING ROOM PICTURES:



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