



MAESTRO
CONSULTANTS

RISK ASSESSMENT

COURSE OUTLINE 2020

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TRAINING TITLE

RISK ASSESSMENT

VENUE

Dubai, UAE

DURATION

5 Days

DATES

31 May - 04 June 2020

PRICE

US\$4,000 per attendee including training material/handouts, morning/afternoon coffee breaks and Lunch buffet daily.

TRAINING INTRODUCTION

'Traditional' risk assessment programmes exist to identify hazards arising from work activities to ensure suitable risk control measures are in place. However, incidents continue to happen, either as a result of inadequate risk assessments or failures in the necessary risk control measures. Risk management involves the preparation of action plans, implementing and measuring performance. This can be proactive, based on risk assessments, active, based on safety audits and site inspection, and reactive based on incident investigation and analysis.

This 5-day programme presents the cutting edge of advanced risk assessment and risk management techniques that are based on latest International Standards and best industry practice. This training session is designed to provide delegates with the knowledge and skills necessary to design, implement and monitor effective risk assessment and risk management systems for their organisation.

TRAINING OBJECTIVES

The delegates will learn how:

- Selection of appropriate risk assessment techniques, including process/workplace based versus the task-based approach
- Monitor and review the effectiveness of an organisation's risk assessment procedures relevant to process hazards

- Plan improvements to your organisation's risk assessment procedure on a rational basis
- Implement risk control strategies and recommend long term risk controls based on cost-benefit analysis
- Develop an audit plan for HSE Management System
- Develop procedures for incident investigation and analysis
- Design a feedback system to ensure that the organisation continues to review and learn from experience

TRAINING AUDIENCE

- Personnel involved in carrying out risk assessment and accident prevention
- Personnel involved in implementing the Company's HSE Management System
- Professionals wishing to widen their understanding of undertaking and managing process risks within the organisation's HSE Management System
- The Workshop is also designed for other professionals who need to keep up to date with latest trends in risk management

COURSE OUTLINE

DAY 1

Introduction to Risk Assessment

- Programme introduction: delegate and tutor introductions; programme objectives
- Introduction to HSE Management Systems
- Integrating risk assessment within Risk Management
- Semi-quantitative risk assessment techniques - machinery based
- The task-based approach to risk assessment
- Syndicate exercise: Working in small groups

Hazard and Operability Studies 'HAZOP'

- Introduction to hazards identification and analysis techniques
- Techniques for hazard identification and analysis - HAZOP
- Syndicate exercise - application of HAZOP to relevant processes

- Planning and implementing within risk management system

DAY 2

Analysis of the consequences

- Introduction into reliability technology
- Failure Modes and Effects Analysis 'FMEA'
- Failures of Permit-to-work systems: video presentation on Piper Alpha
- Analysis of the consequences - mechanics of fire, explosion and toxic releases
- Role of Fault Tree Analysis to identify how accidents can happen

Human Factors and Reliability

- Introduction to human factors and human error
- Hierarchical task analysis 'HTA'
- Task-based HAZOP: Application to critical activities onshore and offshore
- Working in small groups on task-based HAZOPs
- Integrating human factor within HSE management system

DAY 3

Quantified Risk Assessment '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
- Case Study: Working in small groups on accident analysis
- Preparation of action plans, planning and implementing

Modern HSE Management Systems

- Introduction to HSE Management Systems
- Elements, sub-elements and expectations of HSE-MS
- The role of risk management within HSE-MS
- The role of HSE Audits
- Procedures for planning and implementing of action plans

DAY 4

Modern Incidents Investigation Techniques

- Human contribution to accidents
- The role of root cause Analysis in identifying management system failures
- Accident investigation techniques I: Fault Tree Analysis 'FTA'
- Working in small groups on the use of FTA
- Preparation of action plans
- Incident investigation techniques II: Events & Causal Factors Analysis 'E&CFA'
- Group exercise on investigating a multiple-fatalities accident involving offshore drilling rig

Major Hazards Control

- Control of Major Accident Hazards Codes of Practice
- The HSE - Safety Case Concept
- Elements of emergency planning
- Integrating HSE within major projects plans
- Elements of Projects HSE Plans
- Project HSE Reviews 'PHSER'

DAY 5

Safety

- Introduction into the causation of machinery accidents
- Machinery hazards identification
- International machinery safety standards
- Machinery risk assessment
- Design and selection of safeguards and safety devices

Promoting a positive safety culture

- Introduction to Safety Culture
- Techniques for improving safety culture
- Measuring improvements in safety culture
- Integrating safety culture within the HSE Management System

TRAINING CERTIFICATE

MAESTRO CONSULTANTS Certificate of Completion for delegates who attend and complete the training course

METHODOLOGY

Our courses are highly interactive, typically taking a case study approach that we have found to be an effective method of fostering discussions and transferring knowledge. Participants will learn by active participation during the program through the use of individual exercises, questionnaires, team exercises, training videos and discussions of “real life” issues in their organizations. The material has been designed to enable delegates to apply all of the material with immediate effect back in the workplace.