



Project & Contract Management

Risk Management for the Oil and Gas Industry Masterclass

Course Introduction

This training course is designed to provide participants with the key risk management concepts, strategies and good practices in the Oil and Gas Industry (Onshore and Offshore). In the context of strategic risk management line, this course will provide the necessary steps in order of importance and priority that should be given to the themes in the practical exercise of risk management activities, from the conceptual and design phase to operational and crisis management situations.

Target Audience

Project Manager, Risk Manager, Program Manager, Quality Control Coordinator, etc..

Learning Objectives

- Gain a comprehensive understanding of available risks in the oil and gas industry and the importance of risk management in the corporate environment.
- Discuss the use of ISO 31000 and its link to risk management.
- Identify risk management systems and risk-based designs for the oil and gas industry.
- Analyse and select appropriate concepts, approaches, international standards, methods and techniques for the effective implementation of Risk Management
- Evaluate the organization's risk management program and practices
- Design mechanisms to support effective application of risk management practices and solutions across the organization.

Course Outline

• Day 01

Fundamentals of Risk Management

- Defining risk and the importance of risk management
- Risks in the Oil and Gas Industry (Onshore and Offshore)
- Unquantifiable Risk
- Safety Culture and Risk Acceptance
- Human Factors and The Error-Inducing Environment
- Efficiency And Strategic Risk Management Line
- Technical And Operational Knowledge
- Hazard Reduction
- Agents (People) Evacuation
- Emergency Control
- Unpredictability Reduction

Risk Management Systems

- Risk Management in The Corporate Environment
- Centralization And Decentralization of Risk Management
- Association Of Different Technical Areas
- Historical Data Records and Indicator Management
- Risk Management, Occupational Safety and Safety Engineering
- Risk-Based Design - Risk Based Design
- Safety Peer Review (Spr)
- Accident Investigation
- Safety Testing Systems (Surveillance Systems)
- Capillarity Of Risk Management Concepts and Principles
- Applicable Technical Standards
- Learning From Recent Cases of Failure in The Oil & Gas Industry

• Day 02

ISO Standards and Business Continuity in the Oil and Gas

- Risk Management Frameworks & ISO31000
- Implementing ISO standards
- Fundamental principles of Business Continuity Management in Oil & Gas
- Implementation of a BCMS in accordance with ISO 22301 & ISO 27031
- Incident and emergency response management
- Business Impact Analysis (BIA) and Risk Assessment
- The relationship between BCMS and compliance with the other Risk Management requirements
- Planning implementation of a Business Continuity Management Systems (BCMS)

Technical and Operational Knowledge

- Knowing upstream installations
- Drilling ship and completion
- Primary processing equipment 3.1.3 fixed offshore platforms
- Semi-submersible offshore platforms
- Floating offshore production, storage and transfer platforms (fpso)
- Special offshore platforms
- Knowing downstream installations
- Refining facilities and petrochemical plants
- Transport and distribution
- Sea terminals (onshore or at shore)
- Knowing process safety
- Containment loss (liquid and gas leaks)
- Stable or explosive burning combustion
- Safety in physical and chemical hydrocarbon processes
- Knowing the operational practice (field experience)
- Strategies for addressing operational failures
- Performance of professionals in operational, field, and project activities
- Project routines
- Safety systems design documents

• Day 03

Hazard Reduction

- Segmentation Of Hydrocarbon Inventory
- Arrangement And Lay Out Techniques
- Blocking Segmentation Techniques
- Emergency Disposal of Hydrocarbon Inventory
- Pressure Relief and Depressurization
- Dispersion And Controlled Burning
- Emergency Automatic Shutdown

Agents (People) Evacuation

- Importance Of Escape And Abandonment Systems
- Accidents In Hydrocarbon Inventory Facilities And Survival
- Human X System Interaction During Escape And Abandonment
- Escape And Abandon Operation
- Technical Recommendations for Escape And Abandonment Systems
- Possible Operational Sequences
- Dimensions And Basic Recommendations for Escape Routes
- Evacuation, Escape and Rescue Studies
- Spaces With Access Limitations and Machine Rooms
- Applicable Materials for Escape and Abandonment Systems
- Muster Stations and Abandonment Points
- Sea Survival Equipment
- Lifeboats (Lifeboats)
- Liferafts (Lifeboats)
- Rescue Boat
- Salvage Equipment

• Day 04

Emergency Control

- Electric Generation Systems
- Ventilation, Heating and Air Conditioning Systems
- Flushing, Purging and Inerting Systems
- Gas Detection Systems
- Fire Detection Systems
- Automatic Fire Fighting and Protection Systems
- Additional Fire Protection Systems
- Passive Fire Protection
- Confined Equipment Protection Systems
- Subsea Safety Equipment
- Performance Of Brigadists and Rescuers
- Crisis Management and Decision Making
- Identifying And Selecting Accidental Scenarios
- Safety Special Strategies Applicable to Automation
- Redundancy Design and Safety Systems Starting
- Understanding Explosion Phenomena
- Unpredictability Reduction

Risk Analysis Techniques

- Quantitative And Qualitative Risk Analysis
- Preliminary Risk Analysis (PRA)
- Preliminary Hazard Analysis (PHA Or Hazid)
- Operational Hazard Analysis (Hazop)
- Other Risk Analysis Techniques

• Day 05

Human and System Interaction

- Human Error

1. The Impact of Human Error on Accidents
2. Human Behaviour and Safety
3. Considering Human Behaviour in Projects
4. Technology Illiteracy as A Threat to Safety

- Human Factors

1. Main Influences Related to Human Factors
2. Human Factors Analysis
3. Human Factor Treatment Programs
4. Human Factors in The Technology Enterprise Life Cycle

- Limitations of Quantification Techniques Related to Human Reliability
- Rapid Entire Body Assessment (Reba)

1. Example Application of The Reba Technique
2. Human Body Mechanics During Task Execution
3. Anthropometry
4. Static Work
5. Repetitive Work, Cumulative Trauma and Use of Hand Tools
6. Reba Evaluation
7. Reba Recommendations

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
Dec. 22, 2025	Dec. 26, 2025	5 days	4250.00 \$	UAE - Dubai