

ADVANCED HEALTH & SAFETY MANAGEMENT

INTRODUCTION

Most large organisations now have Health, Safety and Environmental Management Systems. Instead of prescriptive legislation and standards, a pro-active approach to risk management based on structured and systematic risk assessment is now in place.

This programme is aimed at providing hands-on experience on the application of advanced H&S management principles and techniques relevant to the oil, gas and process industries. This programme will enable attendees to implement HSE Management System, based on industry best practice. The programme will also provide familiarity with promoting positive safety culture, accidents analysis and modern risk management techniques for planning and implementing action plans.

PRESENTER

Dr. Hussain H Ahmed, MBE, BSc, MSc, PhD, PGCE, MChemE, MSPE

Dr. Hussain has more than 14 years of Process Engineering in the Oil & Gas industry in Europe and the Middle East (Iraq; Saudi Arabia; UAE; Oman; Kuwait). He also has experience for more than 14 years in R&D, training and learning consultancy. He also has about 6 years in team leading & management.

Dr. Hussain developed, published & taught more than 21 training manuals related to specific processes in the chemical, petrochemical and oil & gas industries in the UK, Middle East, & North Africa in topics such as oil well drilling technology; oil production technology; oil movement and transport; Oil-well drilling & drilling fluids; Oil & Gas Production Facilities, Safety courses, Health & Safety, Environmental courses, Energy saving, Oil refineries, Gas turbines; Steam Turbines; Pumps and compressors; Centrifugal compressors; Valves & oil pipelines, etc.

OBJECTIVES

- Demonstrate the role of risk management as the main element of HSE Management System
- Have a clear understanding of risk management techniques and hands-on experience in applying this technique to their own sphere of activities
- Analyse some principal stages in the accident chain and hazard models. This concept will be used to systematically analyse the root causes for selected incidents that have occurred
- Have the experience in demonstrating that major hazards are adequately controlled
- Ensure consistent optimisation of resource allocation for production, maintenance and safety, based on risk and cost-benefit.
- Emphasis throughout the programme will be placed on the practical application of advanced risk management techniques to new projects and current activities

PROGRAM

DAY ONE

MODERN HSE MANAGEMENT SYSTEMS

- Programme introduction: delegate and tutor introductions; programme objectives
- 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 TWO

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]

DAY THREE

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 FOUR

MACHINERY SAFETY

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

DAY FIVE

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