

Module 1: Hazardous Waste Management and Pollution

DAY 1

Brief History of Contamination and Introduction to Hazardous Wastes

- What is Contamination and how does it affect us?
- A Detailed Look at All the Various Types of Contamination
- Global Environmental Issues related to Contamination
- International Environmental Treaties and Guidelines related to Contamination
- The Toxic 12 Chemicals and the Role of the United Nations Environment Program (UNEP)
- The Current Watch List for Chemicals that soon may be added to the Toxic 12
- Environmental Law and its Significance
- Definition of Hazardous Wastes & Non-Hazardous Wastes
- Connecting the Dots between Contamination and Hazardous Wastes

DAY 2

Management of Contamination and Hazardous Wastes

- The Relationship between Contamination and Occupational Health & Safety
- The Importance of Documentation in Hazardous Waste Management
- Some Typical Hazardous Waste Regulations and the Need for Harmonization
- The Purpose of a Workplace Hazardous Materials Information System (WHMIS)
- The Purpose of a Material Safety Data Sheet (MSDS)
- Why a Globally Harmonized System (GHS) is Essential for WHMIS and MSDS?
- Carrying-out a Contamination Audit
- Managing a Waste Disposal Site

DAY 3

Contamination and Pollution Prevention

Discussions on common contamination sources from the contamination audit, sources of pollution and techniques and technologies to prevent or minimize them.

- Exploration & Production-Refining & Transportation
- Oil Spills with Special Reference to the April 2010 Gulf of Mexico Oil Slick Occurrence
- Modern Tanker Design to Minimize the Occurrence of a Major Oil Spill
- Other Oil related Sources of Pollution

- The Common Thread amongst many Third World Countries concerning Pollution Issues
- The Current Concepts of Zero Waste (ZW) and Zero Liquid Discharge (ZLD) and their Limitations
- The Bird Problem - *Pollution from Bird Droppings and Dead Birds and the Latest Available Technologies to Control this Problem*

DAY 4

Continuation of Contamination and Pollution Prevention Planning and Contingency Planning for Major Incidents

- Life Cycle Management of All Materials being Used in a Company
- The 5R's - *Reduce, Reuse, Recycle, Recover and Rethink*
- Detailed Requirements for Proper Storage of Hazardous Materials
- The Importance of On-going Training
- The Importance of Regular Reviews of Emergency Plans
- Updated Information on ISO 14001, 18001 and 9001
- Types of Environmental Audits
- Discussion of Some Major Preventable Accidents

DAY 5

Big Picture Review of the Management and Prevention of Contamination and Hazardous Wastes

- HAZID (*HAZard IDentification*)
- HAZOP (*HAZard & OPerability*)
- Environmental Ethics
- Climate Change Update and its Significance for the Gulf Coast Countries
- Recommendations including Greening your Company at a Reasonable Cost

Module 2: Implementation of Quality, Environmental and Health & Safety Management Systems

DAY 6

Introduction to QMS Quality Management Systems

- Quality Management and ISO 9000 Series
- Quality Systems Certification
- ISO 9001:2017 in Detail
- 1st, 2nd and 3rd Party Audits
- Auditing Theory and Practice
- ISO 19011 Guidelines for Auditing Quality Systems
- The Assessment Process
- How to Conduct Opening and Closing Meetings
- Effective Assessment and Audit Planning
- Audit Team Selection

DAY 7

Introduction to QMS Quality Management Systems [Continued]

- Development and use of Audit Check Lists
- Searching for Evidence of Compliance
- Psychology of Audit and Assessment
- Recording and Reporting Audit Results
- Writing Non-Conformity Statements and Audit Report Writing
- Evaluating Audit and Assessment Results
- Audit Close-Out, Follow-Up and Surveillance
- Roles and Responsibilities

DAY 8

Introduction to ISO 14001 : 2015 Environmental Management System

- The Background and General Introduction to Environmental Issues
- The Challenge of Sustainable Development and Strategic Business Drivers
- The Background to Development of the EMS and the Current Status of 14001
- Key Elements of the EMS Standard and its Relation to ISO 9001

- Types of Environmental Audits and Assessments including technical, functional and management systems and relevant terminology and jargon
- Environmental Legislation (UAE) relevant to Pollution Control via emissions to air, discharge to water and disposal to Land
- Determination of Environmental Aspects and Methodologies for Establishing Significant Impacts
- Management Control over Operations and Monitoring of Performance

DAY 9

Transition to ISO 45001:2018 Occupational Health and Safety Management System

- The Background and General Introduction to OHS Developments of 45001
- ISO 45001:2018 Series of Requirements and Changes
- OHS Legislation and Policy (UAE)
- OHS Planning and Management Systems
- OHS Implementation and Control
- Determination of Hazard Aspects
- Checking and Corrective Action
- Methodologies for Establishing Effective Implementation
- Audit Purpose
- Difference between the Management System Standards

DAY 10

Integrated Management Systems Concepts [IMS]

- IMS Concept, Definition and Documentations
- Integration of System Documentation
- Methodology Audit Skills of IMS Audit and Compliance
- Selection of IMS Auditors
- IMS Auditing (*including preparation and reporting*)
- Benefits of IMS
- Course Review