



Contamination and Hazardous Wastes -
Management and Prevention



21 - 25 April 2025



Singapore

Contamination and Hazardous Wastes - Management and Prevention

course code: C8111 From: 21 - 25 April 2025 Venue: Singapore - course Fees: 5500 Euro

Introduction

Improper storage of hazardous chemicals- both products and wastes-incompatible inspection of containment materials, using hazardous products when non-hazardous products are available and inadequate training of staff are some of the leading causes of environmental contamination. Contamination can come in many forms- Some examples of contamination are ground and surface water, land, air, radioactive, food, noise, molds, odor, construction, vibration, etc. and invariably, if these contaminants are not properly dealt with, will result in pollution and in certain situations serious health problems. This five day course will give some details on these various types of contaminants and the new frontiers in eliminating or minimizing these contaminants, the use of effective non-hazardous products in your company and also environmentally acceptable methods of disposal for both hazardous and non-hazardous wastes.

Workshops, DVD videos and classroom audit exercises will enhance the learning process and the economic side of minimizing or preventing pollution by industry and the associated tangible rewards will be emphasized throughout the course.

Objectives

- Learn about the various types of contamination and which ones are more applicable to your company
- Encourage and facilitate dialogue with like minded individuals on specific contamination issues of concern in their organizations and the opportunity to develop regional networks within the GCC area to address common concerns
- Learn about the relevant environmental treaties dealing with contamination and pollution
- Learn how to prioritize contamination problems in dealing with contamination and waste management issues in a logical sequence.
- Show and emphasize the close relationship between human health and the environment that's been directly affected by contamination
- Discussion of the current methodologies for the cleanup of contaminated soil, ground and surface water, air pollution, construction materials and radioactive materials

Conference Methodology

The conference will encourage delegates' participation, and the atmosphere in the classroom will be tailored to asking questions and the delegates will all be made to feel welcome in a stress free atmosphere. Both a power point slide presentation and videos will be used. Class exercises will also be used to reinforce the information discussed.

Organisational Impact

- The organization, based on the training received by its employees at the course, will have less cause for concern of real or potential contamination problems at the plant, and this usually results in improved productivity
- By addressing real or potential contamination problems from the company's operations, the whole audit management process (system audits, process audits, review audits, surveillance audits, re-registration audits etc) will be made easier and less stressful
- If contamination should occur, reduced healthcare costs for the organization knowing that contamination issues are fully addressed and managed
- If contamination should occur, reduced cleanup costs for the organization knowing that contamination issues are fully addressed and managed
- Enhanced reputation of the organization in the community knowing that there will not be any surprise contamination issues that could derail the organization's image
- An improved image of the organization with the Regulatory Authorities

Personal Impact

- Personal satisfaction of the employee knowing that the organization is providing the necessary information required for him/her to minimize and/or manage workplace contamination
- Risk Reduction knowledge which will provide lasting benefits both personally and professionally
- Safer workplace environment
- Personal psychological advantage of an employee doing his or her part concerning contaminants reduction via "Think Globally, Act Locally"
- Personal pride in being an employee of an organization that's fully committed to addressing and managing real or potential contamination issues
- Personal pride in being part of an organization that's committed to protecting the environment and preventing pollution

CONFERENCE OUTLINE

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
- Environmental DVD

Management of Contamination and Hazardous Wastes

- Brief review of Day 1 topics
- 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
- Environmental DVD
- Class Exercise

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

- Review of Day 2 topics
- 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
- Environmental DVD
- Class Exercise

Continuation of Contamination and Pollution Prevention Planning and Contingency Planning for major incidents

- Review of Day 3 topics
- 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

Big picture review of the Management and Prevention of Contamination and Hazardous Wastes

- Review of Day 4 topics
- HAZID (HAZard IDentification)
- HAZOP (HAZard & OPerability)

- Environmental Ethics
- Examples of Environmental Ethics from the Instructor's personal experiences
- Climate Change update and its significance for the Gulf Coast Countries
- A complete course review with some generic recommendations including Greening your Company at a reasonable cost