BOOST
THE LEADING TRAINING PROVIDER

Health, Safety and Environment

Hazardous waste management and safe disposal practices

Course Introduction

Hazardous waste

Hazardous waste is referred to as any unwanted material that poses a threat to human health, safety, or the environment at large due to its chemical, physical, or biological properties. This type of waste may be toxic, flammable, corrosive, reactive, or infectious. Examples include certain industrial chemicals, solvents, pesticides, medical waste, and radioactive materials. Considering economics, environmental safety, and public health while ensuring safe disposal methods poses continuous challenges for waste management systems globally.

This Hazardous Waste Management and Disposal Training Course will enhance participants' understanding of safe handling, storage, transportation, and disposal of hazardous waste substances. It covers regulations, best practices, and techniques for mitigating environmental and health risks that come along with hazardous waste. Participants will learn how to identify hazardous waste, classify it according to standard regulations, implement proper storage and labelling procedures, and ensure compliance with legal requirements for disposal.

Target Audience

- Environmental Managers
- Health Safety Managers
- General Managers
- Safety Officers
- Regulatory Affairs Managers
- Management Representatives
- Internal Auditors
- Waste Management Specialists
- Chemical Engineers
- Waste Management Specialists
- Laboratory Technicians
- Staff responsible for managing hazardous wastes

- Staff responsible for contamination issues

Learning Objectives

- Recognise various contamination types and select the most appropriate disposal method for their organisation.
- Facilitate discussions on general and specific issues regarding contamination and waste management.
- Understand relevant legislation about environmental contamination and pollution.
- Understand how to navigate and prioritise challenges with waste and contamination management.
- Explore the contamination impacts on the environment and human health.
- Evaluate emerging models for treating contaminated soil, water, radioactive substances, air pollution, and industrial

Course Outline

- **DAY 01**

Module 1: Introduction to Hazardous Waste Management

  - Definition, classification, and sources of hazardous waste
  - Regulatory frameworks and compliance
  - Health and environmental impacts
  - Hazardous waste identification and characterisation
  - The life cycle of hazardous waste
  - Hazardous waste management hierarchy
  - Roles and responsibilities in Hazardous Waste Management

Module 2: Regulatory Compliance and Legal Requirements

- Overview of key regulations (e.g., RCRA, CERCLA, TSCA)
- Permitting processes
- Reporting and record-keeping requirements
- Inspections and enforcement
- Penalties for non-compliance
- State and local regulations
- International regulations and standards
- Regulatory updates and future trends

Module 3: Hazardous Waste Identification and Classification

- Hazardous waste characteristics
- Hazardous waste codes and listings
- Sampling and analytical methods
- Safety Data Sheets and Material Safety Data Sheets
- Risk assessment and hazard evaluation
- Case studies in waste identification and management
- Mixed waste management
- Waste determination process

• **Day 02**

Module 4: Hazardous Waste Storage and Handling

- Proper storage practices
- Container selection and labelling
- Secondary containment systems
- Segregation and compatibility
- Handling procedures and safety measures
- Emergency preparedness and response
- Spill prevention and control
- Facility design and management

Module 5: Transportation of Hazardous Waste

- Transportation regulations (DOT, EPA)
- Packaging and labelling requirements
- Shipping papers and manifests
- Transporter responsibilities
- Safety and security measures
- Incident reporting and response
- Route planning and risk management
- Case studies and best practices

Module 6: Hazardous Waste Treatment Technologies

- Physical treatment methods
- Chemical treatment methods
- Thermal treatment methods
- Biological treatment methods
- Stabilisation and solidification
- Treatment of specific waste streams
- Emerging treatment technologies
- Case studies in treatment success

Module 7: Hazardous Waste Disposal Methods

- Secure landfill design and operation
- Deep well injection

- Surface impoundments and waste piles
- Ocean and other bodies of water disposal
- Legal and environmental considerations
- Long-term monitoring and maintenance
- Remediation of contaminated sites
- Spill response and cleanup procedures
- Case studies in disposal practices

• **Day 03**

Module 8: Sustainability and Pollution Prevention

- Waste minimisation techniques
- Green chemistry and engineering
- Pollution prevention plans
- Sustainable waste management practices
- Resource recovery and recycling
- Life Cycle Analysis (LCA)
- Case studies in sustainable practices

Module 9: Emerging Trends in Waste Management

- Artificial Intelligence in Waste Management
- Smart Sensors and IoT for Waste Management
- Bioremediation techniques
- Waste-to-Energy technologies
- Nanotechnology for hazardous waste treatment
- Circular economy and waste valourisation
- Green chemistry
- Lifecycle assessment and Extended Producer Responsibility (EPR)

Module 10: Technological Innovations and Future Trends

- Digital tools for waste management
- Internet of Things (IoT) in hazardous waste tracking

- Machine Learning and its application to waste management
- Blockchain for waste management transparency
- Advanced treatment technologies
- Enhanced recycling programs
- Environmental monitoring technologies
- Case studies in innovative practices

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
May 26, 2025	May 28, 2025	3 days	3250.00 $	UAE - Dubai
Sept. 22, 2025	Sept. 24, 2025	3 days	4950.00 $	USA - Los Angeles
Dec. 29, 2025	Dec. 31, 2025	3 days	3250.00 $	UAE - Abu Dhabi