



*Technology Training that Works*

# Hazardous Waste Management and Pollution Prevention

**Gain valuable skills from a world class expert in waste management and pollution control!**

## **THE WORKSHOP:**

This workshop is designed for engineers and technicians from a wide range of abilities and backgrounds and will provide an excellent introduction to mastering the management of hazardous waste materials as well as preventing contamination of the environment.

This knowledge make participants aware of the legal and regulatory aspects of pollution and the handling of hazardous waste materials within their plants. It will also allow them to reduce the amount of hazardous waste produced and save money through preventing personal injury and preventing or limiting the effects of accidental pollution.

## **WHO SHOULD ATTEND:**

Anyone involved in the handling of hazardous materials, this includes, but is not limited to:

- ⇒ Project leaders
- ⇒ Production managers, supervisors, engineers and technicians
- ⇒ Maintenance managers, supervisors, engineers and technicians
- ⇒ Consulting engineers
- ⇒ Chemical engineers and technicians
- ⇒ Plant engineers
- ⇒ Operation, inspection and repair managers, supervisors, engineers and technicians
- ⇒ Mechanical engineers and technicians
- ⇒ Electrical engineers and technicians

## **PRE-REQUISITES:**

A basic knowledge of electrical, mechanical and chemical plant environments.

## **AT THE END OF THIS WORKSHOP YOU WILL:**

- ⇒ Be able to identify potential sources of pollution in and around your plant
- ⇒ Be acquainted with the latest technologies and techniques for preventing contamination/pollution
- ⇒ Be acquainted with the latest technologies and techniques for handling hazardous waste materials
- ⇒ Be able to detect and measure the incidence of contamination
- ⇒ Have the skills for managing hazardous waste materials
- ⇒ Know how to plan for and deal with emergencies



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### **ACCREDITATION:**

Satisfactory completion of this course satisfies the requirements of the International Association for Continuing Education and Training for the award of 1.4 Continuing Educations Units. The course also satisfies criteria for Continuing Professional Development according to the requirements of the Institution of Electrical Engineers and Institution of Measurement and Control in the UK, Institution of Engineers in Australia, Institution of Engineers New Zealand, and others.

### **COMPANION COURSES**

IDC courses that will further enhance the knowledge gained from this workshop include:

- ⇒ **Practical Boiler Control and Instrumentation for Engineers and Technicians**
- ⇒ **Practical Centrifugal Pumps - Optimising Performance**
- ⇒ **Practical Boiler Plant Operation and Management for Engineers and Technicians**
- ⇒ **Structural Design for non-Structural Designers**
- ⇒ **Best Practice in Sewage Effluent Treatment Technologies**

For detailed information on all IDC Technologies Workshops, contact

[idc@idc-online.com](mailto:idc@idc-online.com)



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## **REGISTRATION**

### **INTRODUCTION**

- Course objectives
- Definitions

### **BASIC CONCEPTS**

- Pollution monitoring technologies
- Environmental effects of pollution/hazardous waste
- Toxicology
- Radioactivity

### **REGULATORY CONSTRAINTS**

- Environmental laws
- Regulations governing storage and transportation of hazardous materials (national, provincial, regional, municipal)

### **WATER SUPPLIES**

- Water treatment processes
- Ground water management
- Drinking water management

### **AIR**

- Pollution prevention
- Pollution monitoring
- Air cleaning

### **PERSONAL SAFETY**

- Handling flammable materials
- Handling corrosive materials
- Handling poisonous substances
- Handling radioactive materials

### **POLLUTION/CONTAMINATION PREVENTION PROCEDURES**

- Material balance systems
- Building/plant design/layout
- Safety codes
- Management systems

### **CONTINGENCY PLANNING**

- Planning for emergencies
- Training of response teams
- Protective equipment and clothing
- Dealing with spillage
- Dealing with release of hazardous substances into the atmosphere



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**MEASURING TECHNIQUES**

- Measurement techniques
- Statistical sampling theory

**COSTS AND BENEFITS**

- Cost-benefit trade-offs
- Opportunity costs
- Costs of implementing (or not implementing) safety measures
- Ethical issues

**PRACTICAL EXERCISES DURING THE WORKSHOP**

- Delegates will work on a recommendation addressing a particular safety concern (related to the handling of hazardous materials) in their own plant.

**SUMMARY, OPEN FORUM, CLOSING.**