



HAZARD AWARENESS

Highly Intensive, Interactive and Practical Training Course

OVERVIEW:

- The provision of an overhead projector to connect to a portable computer, a video (VHS PAL) recorder and television, a white board and Flip Chart;
- The identification and provision of any local laws and regulations applicable to the activities within which the delegates are intended to become involved. This documentation should be provided 7 days prior to the commencement of the course;
- Documentation applicable to the Client's maintenance policy and processes necessary to ensure that lectures are as appropriate and relevant as possible;

OBJECTIVES FOR NCMT"

- ▶ To design a syllabus for the course to meet the needs of ADGAS as described in future discussions and any future correspondence;
- ▶ To apply training techniques (i.e. activities, group work and practice exercises) that will enable participants to achieve the desired skill and knowledge level;
- ▶ To nominate an instructor(s) who has the relevant background, including qualifications and experience; and
- ▶ To prepare a manual that can be used effectively after the course to assist delegates to further develop their awareness of on-site hazards and to enhance safe working practices.

PRIMARY OBJECTIVES FOR COURSE DELEGATES:

The course syllabus will familiarise delegates with and promote an understanding of the hazards presented by:

- ▶ H2S.
- ▶ Pressure.
- ▶ Hydrocarbon Leak.
- ▶ Lubrication Oil leak.
- ▶ Chemicals.
- ▶ Corrosion.
- ▶ High-pressure steam.
- ▶ Working at height.
- ▶ Solar radiation.



- ▶ Cryogenic processes.
- ▶ Asbestos.
- ▶ Pyrophoric substances.
- ▶ Pressure vessels and cylinders.
- ▶ The radiation hazards associated with the use of X-Rays.
- ▶ Hazard Awareness Training (Level 1) For Employees

COURSE CONTENT:

Module 1 **Introduction**

- ▶ Course administration details
- ▶ Objectives of the course
- ▶ Thermodynamic concepts of pressure and temperature

Module 2 **Cryogenic Liquids**

- ▶ The properties and hazards of liquid cryogens
- ▶ Proper use and care of personal protective equipment and clothing
- ▶ Emergency procedures.

Module 3 **Safety Aspects & Failure Modes**

- ▶ Hazardous substances, including: Chemicals, Sour Gas, Hydrates, LNG & LPG
- ▶ Corrosion as a failure mode in iron, steels and cast irons:
 - Embitterment
 - Stress corrosion
 - Hydrogen damage and sulphur corrosion
 - Erosion, ageing and fatigue
 - Halides in marine installations

Video: Mexico City

Module 4 **Operational Safety**

- ▶ Working at height:
 - Assessment of risk
 - Roofs, platforms and walkways
 - Falling objects
 - Confined spaces
- ▶ Solar radiation:
 - The risks from ultraviolet radiation and high solar temperatures.
 - Personnel protective equipment



- ▶ Ionising radiation (X-Rays)
 - Identification and measurement of the hazard
 - Health effects
 - Assessment of risk

- ▶ Hydrogen Sulphide (H₂S)
 - What is H₂S
 - Detection and monitoring
 - Artificial resuscitation
 - Breathing apparatus
 - Rescue techniques

Module 5 **Vessels & Cylinders**

- ▶ Working with steam:
- ▶ Notification of entry
- ▶ Pre-work planning
- ▶ Pre-work discussions on hazards, hazard control and emergency planning.

Module 6 **The Fatal Legacy**

- ▶ Asbestos Waste And Contamination
 - The hazard and the legal framework
 - Control of asbestos waste on site
 - Danger areas

- ▶ Pyrophoric Materials
 - The hazard and the risk
 - Operating procedures
 - Remaining risks
 - Emergency procedures