

## **Hazardous Area Classification**

**(Groups II & III)**

**1-Day On-Site Workshop\* 2012**

This workshop provides a sound understanding of how Group II (flammable gases, liquids and vapours) and Group III (combustible dusts) hazardous areas are classified.

This workshop is suitable as first time or refresher training for personnel requiring a comprehensive understanding of hazardous area classification.

Potential sources of ignition are often taken into hazardous locations where flammable liquids, gases, vapours and dusts are generated, processed, handled and stored. These flammable substances can easily be ignited from an arc, spark or heat. It is essential that you avoid accidental ignition of these flammable substances.

Based on the current Australian Standards, trainees will receive an introduction to hazardous area legislation and a good understanding of how these hazardous areas are classified.

Ensure you remain compliant\* and maintain your hazardous area skills and knowledge by booking this essential workshop today.

### **Workshop topics:**

- Legislation and compliance
- How Group II and Group III hazardous areas are classified
- How to read hazardous area classification drawings
- Equipment Protection Levels (EPLs)
- How to apply EPLs to select hazardous area electrical equipment

\*Continuing education or training is required – **before Sep 2012:** see Clause 1.7 of AS/NZS2381.1:2005 and Clause 4.7 of AS/NZS61241.14:2005; **after Sep 2012:** see clause 4.4 of AS/NZS600079.14:2009 and clause 4.2 of AS/NZS600079.17:2009

**Upon completion of this workshop trainees should:**

- Be up-to-date with changes that have occurred in the relevant hazardous area Australian Standards
- Understand legislation and compliance
- Have existing hazardous area knowledge reinforced
- Have a sound understanding of how Group II and Group III hazardous areas are classified
- Understand hazardous area classification drawings
- Understand Equipment Protection Levels (EPLs)
- Understand how to apply EPLs to select hazardous area electrical equipment

**Date of the Workshop:** Date to be agreed

**Time:** 7.00 to 7.30 am registration

7.30 am to 4.30 pm workshop (to be agreed)

<b>Breaks:</b>	8.30 to 8.35 am	Brain recovery
	9.30 to 9.45 am	Tea/coffee
	11.00 to 11.05 am	Brain recovery
	12.00 noon to 12.40 pm	Lunch
	1.40 to 1.45 pm	Brain recovery
	2.45 to 3.00 pm	Tea/coffee

**Venue:** At your factory

**Catering:** You provide all tea, coffee, soft drinks and light lunches

**CPD:** This workshop provides 9 hours of Continuous Professional Development (CPD) to assist practicing professional engineers and technicians to maintain and develop their hazardous area technical skills and knowledge.

**Recognition:** *'Esso Training and Procedures Group has endorsed us as an approved provider of "Hazardous Area Wiring" refresher training for Esso maintenance and designated contractor technicians - Marlene Hutty, EAPL training Coordinator*

**Full Workshop Fee:** Workshops presented from 1st January to 31st December 2012  
\$380.00 + \$38.00 (GST) = \$418.00 per person  
Minimum of number of trainees is 10 and maximum is 25.

**Workshop fee includes:**

- Comprehensive workshop notes
- Workshop certificate

**Early Bird Discount:** Save an amazing **\$55.00** per person by paying **within 14 days** after the start of the workshop

Early bird fee: \$330.00 + \$33.00 (GST) = \$363.00 per person

**Payment: Full workshop fee:** Payment must be received **within 28 days** after commencement of workshop.

**Early bird discount:** Payment must be received **within 14 days** after commencement of workshop to receive discounted fee.

MasterCard, Visa, cheque or EFT are accepted.

**Substitutes:** If an enrolled person is unable to attend a substitute is allowed at no extra charge. Details must be faxed or emailed in advance.

**Transfers:** Enrolment transfers to another workshop are not permitted.

**Cancellations:** A \$82.50 fee applies to each cancelled workshop place received in writing more than two weeks prior to the agreed commencement date of the training workshop. Regrettably, no refunds are available after this date or if a trainee fails to attend and no substitute fills the place. The workshop folder will be posted to the trainee. A letter will be mailed following payment in full advising a 40% discount applies on one future 1-day workshop place for each cancelled or no-show booking. This offer is valid for 12 months and no further discounts will apply.

**Set-up:** Venue needs to be set-up the afternoon prior to commencement of workshop. Seating should be at tables arranged in a U shape with six additional large tables for demonstration equipment and documentation. See Appendix A for suggested room layout. Note boardroom tables are unsuitable.

**Names:** A list of enrolled names is required two weeks prior to commencement of the workshop. Please provide the following for each trainee:

- Name for the name badge and workshop folder
- Name (if different to name badge) for the certificate
- Job title
- Contact phone number, fax number and or email address.

## **Workshop Outline**

### **1) Introduction**

- Hazardous areas
- Who is responsible
- Statute laws and standards

### **2) Hazardous Area Classification**

- Ignition curves
- Zone classification - Group II
- Gas classification - equipment group
- Temperature classification - T Class
- Ambient temperature range of explosion protected equipment
- Area classification - Group II
- Combustible dusts - Group III

### **3) Ignition**

- Ignition Triangle

### **4) Selection of Equipment**

- Equipment Protection Levels (EPLs)
- Equipment selection for Group II
- Equipment selection for Group III

### **5) Self Appraisal**

- Appraisal questionnaire
- Appraisal questionnaire answers

### **6) Discussion**

## **Delivery of Workshop**

Workshops are presented using PowerPoint slides, a video clips, video tapes and real hazardous area electrical equipment.

## **The Workshop Author and Presenter**

Colin Baker is a practising professional engineer, qualified workplace assessor (Certificate IV) and workplace trainer who has been involved with surge protection, intrinsic safety and hazardous area installations since 1970. He has worked for some of the major manufacturers of hazardous area instrumentation and has gained significant surge protection and hazardous area experience through designing, installing, commissioning and inspecting equipment and installations.

Colin has provided training and technical support to many chemical, petrochemical and public utility companies around the world and has written and presented numerous papers locally and internationally.

An H Class Licensed Electrical Inspector (Vic) and an Accredited Auditor (Qld), Colin is qualified to inspect hazardous area electrical installations under the 2009 Victoria Electricity Safety (Installation) Regulations and the 2002 Queensland Electrical Safety Regulation.

He sits on the joint Australian/New Zealand Standards sub-committees for the preparation of the standards on Intrinsic Safety and industrial hazardous area trucks. He also sits on the Petroleum Industry Contractors Association electrical sub-committee.

Explosion Protection Technology is a leading independent and Australian owned consulting and training organisations founded by Colin. The company specialising in the safety of hazardous area electrical installations based on the current Australian Standards including:

- Classifying hazardous areas
- Checking electrical installations located in hazardous areas
- Assisting clients to obtain certification of hazardous area electrical equipment
- Running hazardous area workshops

## Appendix A

Recommended Room Layout (example for 14 trainees)

