Introduction

This is an International Training and Assessment Scheme for electrical craft personnel who work or intend to work in potentially explosive atmospheres.

On successful completion of practical and written assessments of each unit, candidates will be awarded a Certificate of Core Competency which carries International recognition among EEMUA members. JT Limited is the awarding body.

CompEx is a competency validation initiative, jointly developed by the Engineering Equipment and Materials Users Association (EEMUA) and JT Limited. Based upon the IEC International Standards, primarily IEC 60079 - 10; 14 & 17, the scheme certification body JT Limited, is now accredited by UKAS to ISO/IEC 17024: 2012 to provide certification of persons. The IEC Standards are at the heart of all CompEx delivery to ensure international conformity and harmonization of safe working practices.

Aims

The aim of the course is to provide delegates „with knowledge and understanding on terminology and protection concepts for electrical/instrument equipment utilized in a potentially flammable atmosphere.

Your Instructor

Manggau Galawing

Minimum Pax

6 Pax

Expected Learning Outcomes

- Recommend the remedial action required to maintain electrical/instrument hazardous area equipment to meet the required standards.
- Select the protection concept, enclosure/equipment, glands and ancillary components and install correctly in hazardous areas.
- Understand how to identify problems with electrical/instrument equipment installed in hazardous areas with respect to the appropriate European and IEC standards.
- Understand that electrical/instrument equipment can be a source of ignition that could contribute to an Explosion.
- Understand the concept of area classification and the need to zone flammable atmospheres accordingly.
- Understand the terminology and definitions associated with hazardous areas.
- Understand the various protection concepts namely Ex „d", Ex „e", Ex „N", Ex"n", Ex „ia" & Ex „ib", Ex „p", Ex „o", Ex „q" and Ex „m".
- Understand how to identify problems with electrical/instrument equipment installed in hazardous areas with respect to the appropriate European and IEC standard.

Course Content

- Properties of Gases & Explosion Principal
- Area Classification
- Standards and Markings
- Sources of Ignition
- Flameproof - Ex d & EEx d
- Increased Safety – Ex e & EEx e
- Type of Protection "n" Reduced Risk
- Maintenance of EX d, e and n Equipment
- Pressurization Ex p & EEx p
- Intrinsic Safety – Ex i & EEx i
- Other Methods of Protection – Ex o, Ex q, Ex m & Hybrid
- Wiring System & Cable Glands
- Inspection and Maintenance of Hazardous Area Equipment

Training Methodology

Lectures, Video, Presentations, Group Discussions, Practical Exercises, Evaluations and Test.