

# **Hazardous Areas CompEx Competence Based Course (Ex01-04) (Virtual Classroom + Practical Assessment)**

## **Course Overview:**

This course has been developed in consultation with industry to ensure the core competence of existing and potential workers who operate in these environments. The qualification consists of four units, which cover the minimum requirements for safe working practices in hazardous locations. The course includes instruction on how to read hazardous area certification, labelling and documentation, and also informs candidates about the main protection concepts, categories and levels that are applied to certified Ex electrical equipment.

Successful candidates will demonstrate the knowledge and skills to meet the requirements highlighted in the IEC 60079 series of standards and the relevant national standards and directives. This qualification focuses on the minimum specifications identified in IEC60079:0, IEC60079:10.1, IEC60079:14 and IEC60079:17.

## **Who Should Attend:**

CompEx Ex01-04 (Gas & Vapors) Course is designed for individuals involved in the selection, installation and inspection of equipment used in hazardous areas. Electrical and instrumentation personnel who conducts electrical installation or inspection of hazardous areas should apply.

## **Entry Requirements:**

Applicants should possess the assumed skills and knowledge as outlined in the competency standards as follows:

- Must have good standards of both written and verbal English.
- Possess Electrical/Instrumentation qualification from the vocation schools that enable us to determine the electrotechnical competency.
- Possess Employment certification (Clearly indicate the electrical/instrumentation work experience in the recent years).

## **Course Syllabus:**

- General principles, ignition properties and apparatus protection, sources of ignition
- Standards, certification and marking
- Flameproof Ex 'd' protection
- Increased safety Ex 'e' protection
- Type Ex 'n' protection
- Pressurisation Ex 'p' protection
- Intrinsic safety Ex 'i' protection
- Other methods of protection, Ex 'o', Ex 'q' and Ex 'm'
- Combined (hybrid) methods of protection
- Installation and Wiring systems to IEC 60079-14
- Inspection and maintenance to IEC 60079-17
- Induction to competence validation testing
- Permit-to-work system and safe isolation

## **Course Duration (Days):**

1 Day Virtual + 2 Day Classroom Practical

## **Assessment:**

### **Theoretical :-**

60MCQ

### **Practical :-**

Visual inspection, measurement and selection of appropriate tools Assembly and blanking of the flange with the selection of the correct part Pressure test of the flange connection Safe disassembly of a flange joint

## **Certification:**

Candidates who are successful in both the theory and practical assessments will receive a CompEx Certificate in Core Competence.

## **Blended Learning - Lesson Plan:**

### **1 Day Theory training: To be held as per virtual training schedule (online-virtual)**

- Candidate will sign up for virtual classroom as per the given schedule.
- Candidate is required to attend the full theory training. Attendance will be recorded in order to take the 3 days practical assessment course at the training centre

### **3 DAYS Assessment Course: To be held as per class schedule (Face-to-Face) (Training centre -Singapore)**

#### DAY 1

- Cable glanding Demonstration (Practical Training)
- Inspection Training (Practical Training)

#### DAY 2 (Assessment)

- Ex01 Preparation & Installation of Ex 'd', Ex 'e', Ex 'n'
- Ex02 Inspection & Maintenance of Ex 'd', Ex 'e', Ex 'n'

#### DAY 3 (Assessment)

- Ex03 Preparation & Installation of Ex i systems
- Ex04 Inspection & Maintenance of Ex I systems
- 60MCQ Theory Examination

#### Requirement:

- Candidate will require to be equipped with a good internet connection (i.e. bandwidth 1.5Mbps up / 1.5 Mbps down) and speaker.
- Candidate is required to schedule the 3 days assessment course within 6 months upon completion of the 1-day virtual training (theory). ATTS will consider appropriate to extend the lead time in cases where it is not possible to travel due to COVID 19 outbreak.

## **BOOK A COURSE**

Please contact the Administrator – [enquiry@atts-asia.com](mailto:enquiry@atts-asia.com) for course registration