

## Fact Sheet No.3

### CompEx Module Ex F (Foundation)

#### Course Duration

2 days

#### Location

ExVeritas Training Centres (Wrexham, UK; Cork, Ireland; Valletta, Malta), or Hotel Conference Suite or other similar locations. At facilities, other than ExVeritas Training Centres, the minimum number of candidates will be six.

#### Maximum Number

The maximum number of candidates per course is fifteen.

#### Examined

Yes

#### Certificate issue

Yes: Please note this is **NOT** a competency certificate

#### Target Audience

Supervisors, Contract Managers, Senior Management, Operators and Non-Practitioners.

#### Course Overview

The Foundation course provides an overview of the requirements for working safely in a potentially explosive atmosphere. The main aim of the course is to cover some of the basic key elements to enable the adoption of safe working practices and provide a greater appreciation of the hazards associated with working in explosive atmospheres.

All presentation material is in Microsoft PowerPoint, whilst electronic (hard copies are available at cost) hand-outs are available in either PowerPoint (three slides per page) some of the presentations are available in word

documentation format. The format of the course notes is intended that they can be used as an aide-memoir tool in the future for the candidate.

Course delivery and all assessment material are currently in **English**.

### **English Language Proficiency Levels.**

It is expected that attendees to CompEx courses have a suitable level of the English language associated with a technical discipline, sometimes identified as “Technical English”. As English language learners acquire English as a second language, they progress through five language proficiency levels:

1. beginning,
2. early intermediate,
3. intermediate,
4. early advanced, and
5. advanced.

It is recommended that the minimum acceptable level for the CompEx Ex F course will be “intermediate” or “early advanced” and higher.

### **Course Content**

Due to the limitation of time associated with the course only an overview of each topic can be covered. There are a number of modules available that cover topics such as:

#### **Explosive Atmospheres**

Definition of the three groups associated with gases vapours and mists and combustible dusts, surface temperatures, temperature classes, density of gases and vapours, flammable range and explosive range. Ambient temperatures etc

#### **Health & Safety**

Introduction to safe working practices in explosive atmospheres

#### **ATEX Directive 2014/34/EU (Equipment)**

An overview of what the equipment marking on different types of equipment means.

## **Equipment Protection Levels (EPL's)**

What they are and what do they mean?

## **Area Classification**

Covers the basic requirements of the latest edition of IEC 60079-10-1 gases and vapour and IEC 60079-10-2 combustible dusts e.g. zone types etc. ventilation, openings etc.

## **Protection Concepts**

An overview of the concepts as applied to equipment for use in explosive atmospheres e.g.

- Gas concepts - d, e, i, m, n, o, p, q.
- Dust concepts - t, i, p, m
- Non-electrical concepts: h, c, b, k, p, and d

## **Ignition Sources**

A brief overview of the thirteen ignition sources as detailed in the latest edition of EN 1127-1

## **International (Ingress) Protection**

Introduction and explanation of the terminology used for equipment with regards to ingress protection e.g. IP54 or IP67 which is the better and why.

## **Installation practices gas/vapours and dusts**

Overview of the requirements of the latest edition of IEC 60079-14 with regard to the installation of equipment

## **Inspection and Maintenance gases/vapours combustible dusts**

Overview of the requirements of the latest edition of IEC 60079-17 with regard to the inspection and maintenance of equipment

## **Videos**

There are a number of video's that will be shown to support the course objectives.

## Assessments

The candidate's knowledge is assessed by undertaking a multi-choice examination, this examination is completed **on-line** i.e. on computers, and therefore access to the internet is a necessity.

If the course is held at other venues apart from ExVeritas's training facilities at Wrexham, UK: Cork, Ireland: Valletta, Malta, then the location in question has to ensure that access to the internet facility is available and is suitable and sufficient so as to be able to undertake the on-line examination associated with the CompEx Ex F course.

For classes greater than nine then the on-line examination assessment is undertaken in batches up to nine. For example, if there are 12 people on the course these will be split across two on-line assessments i.e. six people on each on-line assessment.

The on-line assessments associated with the CompEx Ex F course has a duration of 45 minutes.

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