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. The facility used for the training of the candidates should be suitably sized to accommodate the number of candidates, the training facility used should be clean, bright and temperature controlled, the minimum requirements are tables and chairs for the candidates, the training room to be provided with a projector or television screen or similar, speakers or sound systems, white board or flip chart and marker pens suitable for the white board or flip chart.

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.

Minimum internet requirements

Hardware

Processor 1.80GHz or faster

RAM 4GB as a minimum and 8 GB as the recommended (with 1GB of free memory whilst the application is running)

1GB of free space

Single display

Screen resolution of 1024x768 (1280x1024 for BTL test centre network suppliers)

Software

Supported operating systems:

Windows 7 (32bit or 64bit)

- Windows 8 (32bit or 64bit)
- Windows 8.1 (32bit or 64bit)
- Windows 10 (32bit or 64bit)

Microsoft .NET Framework 4.5.2

Running SecureClient

General

1GB of free disk space

Note: Depending on the test you are running, you may need more disk space.

Tests may contain media or attached files. In this case, you may also need:

- External applications capable of opening files, for example text documents, spreadsheets, video, audio, or PDFs.
- Audio capability and headphones
- Microphone

Bandwidth

A centre connection of 2Mbps or greater for every 30 candidate tests being sat at the same time is recommended to ensure candidates are not affected by connection issues during test delivery. You are advised to download the test in advance if you do not want candidates to have to wait for the test to download at the start of the session.

Please note that the use of 3G cards may not guarantee a constant bandwidth and could therefore not meet the minimum requirements.

Depending on the size of the test and number of candidates, download speeds and submission times may be affected.

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 at the 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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