

## Fact Sheet No.7

### CompEx Modules EX14 ADE

#### Course

CompEx Ex14: Responsible Persons Course

#### Locations

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.

#### Title

Explosive Atmospheres: Responsible Persons course.

#### Maximum Number

The maximum number of candidates per course is ten.

#### Duration

4 days

#### Examined

Yes: Three Multi-Choice Examinations

#### Target Audience

The ExVeritas CompEx Ex14 course has been designed specifically for people who have the responsibility for scheduling inspections, determining inspection frequencies and types of inspection, checking inspection team competence, reviewing inspection results and taking appropriate actions based on the inspection results. People who would like to understand the role or wish to move in to the management or analysis of inspections would also benefit from this course.

#### Minimum Requirements and Employment Letter

The Candidate has sufficient knowledge, skills and experience to undertake the training and assessments.

A Company employment letter will also be requested in support of the candidates' technical qualifications, career history and current technical role. A template sponsorship form will be issued along with the booking forms. This needs to be completed and returned on company letter headed paper along with the completed Booking Form.

### **Course Overview**

The CompEx EX14 module aims to assist Responsible Persons meet their legal obligations with regard to maintaining an asset register and implementing a practical approach to the inspection and maintenance of equipment in explosive atmospheres utilising IEC 60079 Parts 14 & 17 and offering the basis of best practice in this regard.

As the persons attending the course are responsible persons or at an equivalent senior level, the course covers the basic and more in-depth elements of the inspection criteria regarding prioritizing and scheduling any non-compliance action identified during an inspection of electrical equipment associated with potentially explosive atmospheres.

All presentation material is in Microsoft PowerPoint, a hard copy of the course notes is available in three slides per page 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 of English for the CompEx Ex14 design course will be "advanced".

There are a number of modules available that cover topics such as:

- Overview of Explosive Atmospheres – explosions and case studies
- Terminology explanations (Atex Marking etc.)
- Area Classification for Inspection Engineers

Management tools and methodologies for Inspection Management

- Assessing Competence
- Risk Assessment
- Auditing
- Calibration and Safety Devices (trips and test intervals)
- Explosion Protection Levels (categories and EPL) & Protection Concepts
- Ex Inspection requirements
- Determining inspection frequency and type (IEC60079-17)
- Ex Inspection covering visual, close and detailed inspections for all concepts
- Analysing and acting on Ex Inspection data (including EI Guidance on Managing Ex Inspection)
- Environmental factors
- Understanding Risk based approaches
- Assigning fault codes and actions
- Appropriate Maintenance and feedback to the 'system'

Example Ex Database Management (Analysis, Schedule and Remedial)

#### **Assessments for Ex14**

- 1) Foundation Paper Closed Book – Multi choice
- 2) Part 1 – Technical Paper Closed Book – Multi-choice
- 3) Part 2 – Scenario/case study (data analysis – open book)

## Agenda

### Section Headings

- (1) Legislation and standards
- (2) Explosive atmospheres (gases/vapours and combustible dusts)
- (3) Hazardous area classification
- (4) Ignition sources
- (5) Equipment concepts
- (6) Competency
- (7) Design, selection and installation (IEC 60079-14)
- (8) Equipment repair and reclamation (IEC 600-79-19)
- (9) Inspection and Maintenance (IEC 60079-17)

### Course schedule (09.00 start and 16.00 finish)

#### Day one:

- Registration
- Course introduction
- Instructor and candidate introductions
- Foundation style multi-choice examination (45 mins)
- Video: Remembering Piper Alpha – instructor marks Foundation exams
- Feedback on Foundation results

- (1) Legislation & Standards
- (2) Explosive atmospheres (gas/vapours and combustible dusts)
- (3) Hazardous area classification – part 1
  - Recap + Q&A

#### Day two:

- (3) Hazardous area classification – part 2
  - Discussion on candidate approach to HAC on their site
- (4) Ignition sources
- (5) Equipment concepts – part 1 and Equipment concepts – part 2

(6) Competency – part 1 and Competency – part 2:

Discussion on installation & inspection personnel on site (inc. local & remote support)

- Design, selection and installation (IEC 60079-14) – part 1
- Recap + Q&A

**Day three:**

(7) Design, selection and installation (IEC 60079-14) – part 2

- Equipment selection exercise
- Discussion on “design and installation” management and change control

(8) Repair and reclamation (IEC 60079-19)

(9) Inspection and maintenance (IEC 60079-17) – part 1 and Inspection and maintenance (IEC 60079-17) – part 2

Recap + Q&A

**Day four:**

Inspection and maintenance (IEC 60079-17) – part 3

- Exercise on remedial prioritisation
- Discussion on “inspection and maintenance” management
- Re-cap (Q&A) session
- Ex14 multi-choice examination Part 1 (60mins)
- Ex14 multi-choice examination Part 2 (90mins)
- Course wash-up and feedback

The above timings are subject to change.

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