

INTERTEK ACADEMY

Leading UK CompEx training for
Hazardous Locations





Intertek CompEx Academy

If you are involved with projects associated with hazardous areas, which involves the installation or inspection and maintenance of electrical or non-electrical e.g. mechanical, equipment that is in accordance with EN or IEC standards associated with potentially explosive atmospheres, it is likely that the new training and competence requirements will affect you.

The electrical installation standard IEC 60079-14: 2007 specifies in detail the competency levels and the requirements for people involved in the manufacture and installation of equipment or plant designed for use in hazardous (potentially explosive) atmospheres.

The requirement for competency of installers applies to persons installing equipment on a plant and is equally applicable to many manufacturers who assemble certified equipment to form an assembly. Management and Design personnel also have specified training requirements listed in the standard.



Our courses are delivered from our licensed CompEx centres in Chester and Grangemouth, as well as through International partners, or bespoke at your facility using our mobile CompEx training rigs.

Intertek is a leading Total Quality Assurance provider to industries worldwide. Our network of more than 1,000 laboratories and offices in more than 100 countries, delivers innovative and bespoke Assurance, Testing, Inspection and Certification solutions for our customers' operations and supply chains. Intertek Total Quality Assurance expertise, delivered consistently with precision, pace and passion, enabling our customers to power ahead safely. Intertek's CompEx training gives you the tools to control your companies processes and activities, and provide insights into both current and future product requirements. Our courses also provide you with the understanding of business practices and processes to ensure continual improvement of your organisation's management system.

Our CompEx instructors are experienced practitioners and industry experts in their fields, many of which actively participate in international committees for standardisation and thus possess the latest industry information and knowledge.

CompEx training solutions for hazardous location personnel

CompEx is a nationally recognised course and qualification in explosive atmospheres installation and inspection and is fast becoming a mandatory requirement on many plants. It provides competence-based training and assessment for electrical and instrumentation technicians working in hazardous areas in offshore and onshore industrial environments.

Our CompEx courses are designed to provide you with the practical skills, test competency and provide suitable certification to allow you to work in hazardous area environments. All our courses include the latest IEC standards and up-to-date information. We take great pride in the enthusiasm and knowledge of our lecturers who can draw from practical experience at all times to keep the courses interesting, relevant and practical.

Intertek is an ATEX Notified Body and Nationally Recognized Testing Laboratory (NRTL) DSEAR/ATEX 2014/EU/34 implementation specialist with licensed CompEx Centres. Additionally, our UK testing electrical testing facilities are a UK approved body to issue UKEx certificates for access to the UK market.

Intertek also offers a global training solution with the CompEx mobile facility, designed for our customers outside the UK, we bring the training to you.

Bespoke training courses

We can deliver tailored courses to your company's requirements on dates and at a location of your choosing.

We have delivered bespoke training in countries across the globe, helping organisations ensure their staff have the right skills for the job.

City & Guilds Accredited Courses

City & Guilds accredited courses are nationally recognised and benchmarked against their quality standard, giving you the confidence and reassurance that your training is the best it can be.

Our 18th Edition Wiring course provides an in-depth understanding of the Regulations and a City & Guilds Level 3 Award in the Requirements of Electrical Installations (BS7671:2018) 18th Edition Regulations.

We will be adding further City & Guilds accredited courses to our portfolio over the course of 2021.

COVID-19 health and safety measures

The safety of our customers and staff is paramount and we have implemented measures to ensure delegates can train safely at our centre, adhering to the Government guidance and social distancing measures. We have implemented a detailed precautionary strategy, with one-way systems, cleaning schedules and social distancing measures in place, every delegate also receives a face mask to be worn at all times, gloves and hand sanitizer.



Ex Foundation Course



'Videos and real-world examples helped bring the topics to life. I would recommend the Ex Foundation course to anyone involved in ATEX and working in explosive atmospheres, it was a real eye opener and I learnt a great deal.'

Julian Borthwick, Capital & Assets Manager, Kellogg Company

Course overview

A nationally recognised certificate in the basic theory of hazardous areas.

This unit is part of the national scheme for the training and certification of core competence of personnel who work on equipment for use in explosive atmospheres. Such training provides companies with a target for their employees, which is recognised by the self-regulated sector of this industry as a necessary component of their Personnel Competency Matrix. For this reason, it is considered that assessment of the knowledge imparted by the training will be an essential part of any programme.

Intertek ensures that this course is up-to-date with the latest requirements of the European Directives, ATEX and IEC Standards.

Who should attend?

This course contains no practical skills training or practical assessment and is therefore more suited to anyone involved in Hazardous Area work that does not actually conduct installation or inspection of electrical equipment. Unlike the other CompEx units, no prior knowledge of hazardous areas is required for full participation in this unit.

The course can be delivered as an OPEN course at our training Centre or delivered at your location, minimising travel and disturbance to the people attending the course.

Agenda

- National core competence certificate for hazardous locations
- Directives and regulations
- Hazardous areas
- DSEAR
- Ignition sources of gas and dust
- Area classification
- Signage
- Categories and EPLs
- Equipment for use in hazardous areas
- Types of protection, electrical and non-electrical
- Ingress protection (IP rating)
- Marking
- Maintenance work
- Repairs
- Modifications
- Portable equipment
- Miscellaneous

Duration: 2 Days

Location: Chester & Grangemouth

Examined: Yes

Certificate Issued: National certificate for hazardous locations

Ex01-Ex04 Gas & Vapours



Course overview

Electrical/Instrumentation installation, maintenance & inspection

Operatives are considered to be people who are involved in the selection, installation and inspection of equipment. The Installation Standard IEC 60079-14 requires an assessment of the delegates practical 'skills' in addition to theoretical training. This necessitates practical assessment and evaluations such as the 'CompEx' scheme where trainees are expected to assemble equipment (for example glands) that will then be taken apart and examined by assessors.

The course consists of classroom based theoretical practical training (50%) and practical assessment and written examination.

Who should attend?

Anyone who conducts electrical installation or inspection of hazardous areas, normally practitioners with an electrical installation background.

Agenda

- Understanding of the general principles of explosion protection.
- Understanding of the general principles of types of protection and marking.

- Understanding of those aspects of equipment design which affect protection concept.
- Understanding of content of certificates and relevant parts of IEC/EN 60079-14.
- General understanding of inspection and maintenance requirements of IEC/EN 60079-17.
- Familiarity with the particular techniques to be employed in the selection and erection of equipment referred to in IEC/EN 60079-14.
- Understanding of the additional importance of permit to work systems and safe isolation in relation to explosion protection.
- Practical skills necessary for the preparation and installation of relevant concepts of protection (hands on training).

Duration: 5 Days

Location: Chester & Grangemouth

Examined: Yes

Certificate Issued: National certificate for hazardous locations

Ex05-Ex06 Combustible Dust



Course overview

Electrical/Instrumentation installation, maintenance & inspection

Operatives are considered to be people who are involved in the selection, installation and inspection of equipment. The Installation Standard IEC/EN 60079-14 requires an assessment of the delegates practical 'skills' in addition to theoretical training. This necessitates practical training and evaluations such as the 'CompEx' scheme where trainees are expected to assemble equipment (for example glands) that will then be taken apart and examined by assessors. The course consists of classroom based theoretical practical training (50%) and practical assessment and written examination.

Who should attend?

Anyone who conducts electrical installation or inspection of hazardous dust areas, normally practitioners with an electrical installation background.

Agenda

- Understanding of the general principles of explosion protection.
- Understanding of the general principles of types of protection and marking.

- Understanding of those aspects of equipment design which affect protection concept.
- Understanding of content of certificates and relevant parts of IEC/EN 60079-14.
- General understanding of inspection and maintenance requirements of IEC/EN 60079-17.
- Familiarity with the particular techniques to be employed in the selection and erection of equipment referred to in IEC/EN 60079-14.
- Understanding of the additional importance of permit to work systems and safe isolation in relation to explosion protection.
- Practical skills necessary for the preparation and installation of relevant concepts of protection (hands on training).

Duration: 3 Days

Location: Chester & Grangemouth

Examined: Yes

Certificate Issued: National certificate for hazardous locations

Combustible Dusts in Food manufacturing webinar

With estimates of around 2,000 dust explosions occurring in factories each year in Europe alone, it is crucial manufacturers of food products are aware of the risks of combustible dust and the necessary precautions to ensure safety.

The impact of a dust explosion can be catastrophic, leading to a large loss of life and considerable and costly damage to plants and buildings. Combustible dusts occur in many food manufacturing processes, including flour mills, sugar processing and formation environments, and grain handling.

Contact our experts today to watch our free on-demand webinar about the risks of explosive dusts, ways to mitigate these risks and the applicable standards businesses and equipment manufacturers must comply with..

Ex11 Mechanical



Course overview

Ex11 meets the competency requirements for EN 13463 Parts 1, 5 & 6 for operatives working with mechanical equipment.

Since the introduction of ATEX (DSEAR) users must identify all possible ignition sources that could arise in hazardous areas. The identification of these ignition sources includes electrical and non-electrical (mechanical) items of equipment.

In addition to the existing safety measures applied to ensure safety of electrical equipment in hazardous areas measures for explosion safety now apply to non-electrical equipment. The safety measures for non-electrical equipment used in hazardous areas not only include the design of equipment but also those aspects required for safe selection, installation, maintenance, inspection and repair.

- Ignition temperatures - cloud and layer
- Dust groups
- Area classification
- ATEX categories and IEC EPL's
- Essential Health and Safety requirements (Reference BS EN 1127-1)
- Standards (BS EN 13463 parts 1, 5 & 6)
- Risk assessments and their relevance to installation
- Bearings (BS EN 13463 part 5 2003) clause 6.1

Duration: 3 Days

Location: Chester & Grangemouth

Examined: Yes

Certificate Issued: National certificate for hazardous locations

Who should attend?

Mechanical technicians and engineers.

Agenda

- ATEX Equipment Directive and EPS Regulations
- ATEX Worker Directive and DSEAR
- Flash point
- Ignition temperatures and equipment temperature classification
- Gas groups



Ex12 Application Design Engineers



Course overview

When designing an electrical installation for use in explosive atmospheres there is a requirement to consider the design, selection and erection of the overall system.

The Ex12 course is intended to give an in-depth awareness to the candidate with regard to explosive atmospheres formed by gases, vapours, mists and combustible dusts. It covers the application design and selection of electrical equipment, along with the requirements of IEC 60079-14: Electrical installations design, selection and erection, this includes but not limited to the selection of equipment, cabling and cable glands etc.

The course consists of classroom based theoretical training. There are a number of individual exercises and group exercises covering equipment selection, labelling, environmental conditions etc. The course also covers intrinsically safe systems and the necessary parameters required to ensure correct and safe installation is achieved.

Who should attend?

Electrical engineers including; maintenance engineers, project engineers etc.

Agenda

- Legislation
- Standards and certification process EN / IEC Ex
- Explosive atmospheres
- Area Classification (overview)
- Ingress Protection
- ATEX 94/9/EC - Equipment and equipment marking
- Equipment Protection levels
- Detailed design and Installation Practices (Electrical and I.S. concepts) in accordance with IEC 60079-14
- Documentation
- A review of a selection of electrical and I.S. equipment and systems

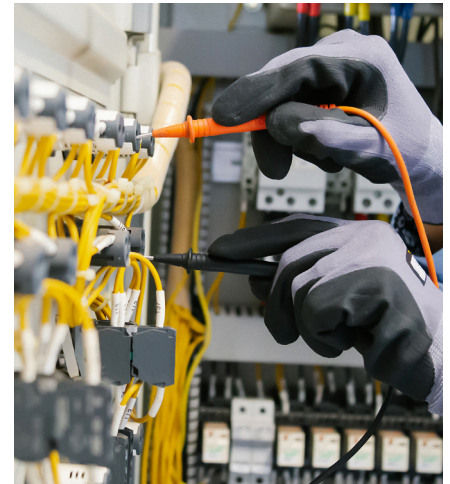
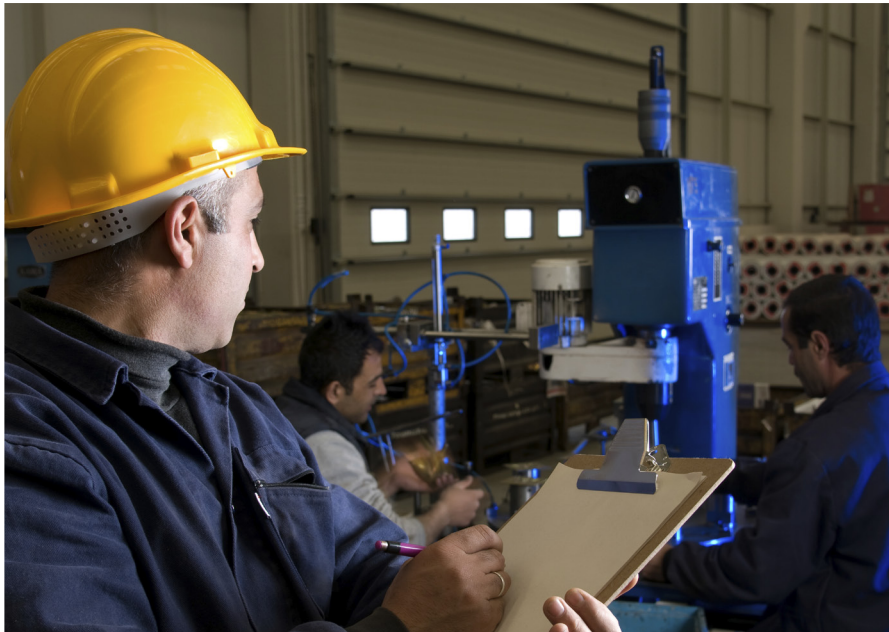
Duration: 5 Days

Location: Chester & Grangemouth

Examined: Yes

Certificate Issued: National certificate for hazardous locations

Ex14 Responsible Person



'My training experience with Intertek has been excellent and their staff provided great support throughout the course, whilst maintaining the necessary COVID-19 hygiene and social distancing requirements to allow us to train safely.'

Steven Rugg, Managing Director at SR Electrical

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.

Who should attend?

The 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.

Agenda

- 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

- 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)

Duration: 4 Days

Location: Chester & Grangemouth

Examined: Yes

Certificate Issued: National certificate for hazardous locations

Mobile CompEx



Course overview

Our focus is not just on training, but also on competency assessment through a candidate's demonstration of those practical skills necessary to work safely in hazardous areas. Historically CompEx has been delivered from a number of fixed centres based mainly within the United Kingdom.

Designed for use outside of the United Kingdom, Intertek is the first CompEx centre to offer the scheme to a global market through their mobile CompEx Assessment Rigs. Based closely on our principal centres in the UK our mobile rigs are transported via bespoke "flight" cases and assembled at a suitable location on or near your site.

Who should attend?

Designed for larger groups of candidates who are unable for economic/logistical reasons to attend a course at a fixed CompEx training centre.

Due to logistical considerations and variable numbers of candidates course costs are quoted separately.

Agenda

The syllabus and assessment is identical to our standard CompEx courses Ex01-Ex04.

Please note, through discussions with our CompEx team there exists the opportunity to extend the time allocated for the training element of the course, if appropriate to the target audience (e.g. if English is not a candidates first language)

Course Options

- Gas & Vapours Ex01-Ex04
Duration - minimum 5 days but can be extended



18th Edition Wiring Regulations BS 7671:2018



Course overview

This course provides an in-depth understanding of the Regulations and a City & Guilds Level 3 Award in the Requirements of Electrical Installations (BS7671:2018) 18th Edition Regulations.

With the introduction of the 18th Edition of the IET Wiring regulations on 1 January 2019, it is now legal a requirement that the design of all new electrical installations must comply with BS 7671:2018, 18th Edition (2018).

The presenter will cover key changes introduced in the 18th Edition, including but not limited to:

- Added requirement that Ex Component Certificates require a Schedule of Limitations in all cases
- Additions to the scope of BS 7671
- Changes to the disconnection times for certain circuits
- Further requirements for circuit protection in domestic dwellings
- Considerations for Arc Fault Detection in many installations
- Supporting of wiring systems
- Inspection and testing procedures.

The course consists 3 days formal training, and a 2-hour multiple choice exam on the fourth day.

Who should attend?

This course is essential for those involved in the design, installation, inspection and testing of wiring systems including practicing electricians, electrical contractors and those who need a good working knowledge of BS 7671.

Agenda

- Additions to the scope of BS 7671
- Changes to the disconnection times for certain circuits
- Further requirements for circuit protection in domestic dwellings
- Considerations for Arc Fault Detection in many installations
- Supporting of wiring systems
- Inspection and testing procedures

Duration: 3 Days

Examined: Yes

Certificate Issued: City & Guilds 2382-18 Level 3 Award in Requirements for Electrical Installations BS 7671

A COMPLETE ELECTRICAL SECTOR SOLUTION





INTERTEK ACADEMY

Intertek training programs address a broad range of subjects and can be delivered either at one of our training centres attached to our laboratories, or on-site at your premises. Operating at the forefront of international and local regulatory developments, customer and legal compliance requirements, as well as good manufacturing and compliance practices, our experts have the experience to assure that your key staff, management and suppliers will be up-to-date on key compliance issues, technical expertise and more.



COMPEX TRAINING CENTRE - CHESTER

Unit 1
Deeside Lane
Chester
CH1 6DD
UK



+44 1244 882590



training.uk@intertek.com



intertek.com/training/uk

COMPEX TRAINING CENTRE - GRANGEMOUTH

3 Roseland Hall
Grangemouth
FK3 8WJ
UK

+44 1908 857755

INTERTEK ACADEMY

Davy Avenue
Knowlhill
Milton Keynes
MK5 8NL
UK

+44 1908 857755



Intertek

intertek
Total Quality. Assured.