



SGS United Kingdom Ltd. Training Services

BAS-PS-002 - ISSUE 4 - JAN 2024

WHY CHOOSE SGS

With the acquisition of Baseefa Ltd. in 2011, SGS became a world renowned organisation in the field of explosion protection. Our training courses are designed to complement the services we provide to our customers. Our philosophy is clear, we like to keep it simple and all our training programmes have this express aim. We believe that if a person knows their subject, they should be able to explain it to others simply. With this in mind we are confident we can deliver and tailor our courses to suit all levels of personnel.

SGS United Kingdom Ltd. Ltd is the leading internationally recognised certification body for explosion protected equipment, delivering IECEx, ATEX, UKEX and DSEAR certification and associated services to customers around the globe.

Our activities extend well beyond just certification, providing an accessible yet authoritative source of expertise in many related areas. Research work into explosions in hazardous atmospheres has been carried out at Buxton since the 1920s.

SGS United Kingdom Ltd. Ltd is currently one of the largest organisations in the world with a laboratory dedicated to certification in this area and a world leader in the field. With over 300 years' collective experience, our staff have extensive knowledge of the standards and how to apply them. We are happy to share this knowledge with you.

Our courses have been developed to cover both the ATEX Directives and the UK Regulations which implement the Directives, as well as the relevant guidance, Codes and Standards.

Following the UK withdrawal from the European Union, product certification to the UK legislation is referenced as UKEX certification, but there are no significant technical or procedural differences, despite the requirement for two certificates, one (CE Marking) for use in Europe, and one (UKCA Marking) for use in Great Britain.

Where relevant, reference is also made to the international IECEx Certification Schemes and we are happy to present international variants of our European based courses.

OUR PORTFOLIO OF TRAINING SERVICES INCLUDES:

- Introduction to Hazardous Atmospheres & Explosion Protection Techniques (1 day)
- Hazardous Area Products – QA System Planning (1 day)
- ATEX / DSEAR Overview (1 day)
- ATEX / DSEAR (2 day)
- Risk Assessment and Explosive Atmosphere Classification (2 day)
- Safe Use of Equipment in Potentially Explosive Atmospheres & Intrinsic Safety (4 day)
- Training for Designers (as required)
- Bespoke Training Solutions (as required)

[sgs.com](https://www.sgs.com)





All our training presenters are leaders in their field, providing delegates with expert opinions on subjects related to potentially explosive atmospheres. Our training programmes cover all our specialty technical subjects, but are delivered with a particular flair that makes ours different and the learning experience that bit more enjoyable and memorable. Training is delivered at our purpose-built training facilities in Buxton; at our customers' premises; or at any suitable venue of convenience to you.

The competence of your company's employees, suppliers and contractors is key and must be demonstrated before undertaking work in potentially explosive atmospheres. All the training courses test delegates' knowledge progressively through the course delivery, ensuring key learning points are clearly understood. Many courses provide Certificates of Achievement upon successful completion, which provide clear evidence of your personnel's acquired knowledge in this area, whilst also demonstrating your company investment in their continued professional development.

PUBLIC COURSES

Joining one of our public courses gives you the opportunity to meet with individuals from related industries and discuss course topics with others who have identified the same types of issues.

As a result, you can share and gain best practice knowledge, not only from our experts, but also from those in similar organisational roles. Public courses are on fixed dates throughout the year and can be ran remotely via MS-Teams or at our premises in Buxton, Derbyshire. Please refer to our course calendar for more information.

IN-HOUSE COURSES

Running a standard or bespoke course at your premises allows you to shape the message and style of the presentation to suit the culture of your organisation. It is the most convenient and cost-effective solution should you wish to train a number of staff in the same location, or when confidentiality is an issue. Once we have agreed the dates and location of your training course, our experts work with you to identify and evaluate your training objectives and to customise the course content to ensure they are met. Contact us today for a no-obligation quote.

For further information, including prices on any of our courses or to make a reservation, please contact Jayne Lingard via email jayne.lingard@sgs.com or call +44 (0) 1298 766629.



1 DAY: INTRODUCTION TO HAZARDOUS ATMOSPHERES AND EXPLOSION PROTECTION TECHNIQUES

Our Introduction to Hazardous Atmospheres and Explosion Protection Techniques training course is a one day course and provides an overview of both technical and legislative aspects of the manufacture and installation of equipment intended for use in an explosive area. The first part of the course concentrates on ensuring a fundamental understanding of the nature of explosions and ignition sources, so that what follows is placed in a coherent technical context. Although some attendees will already know some of the physics and chemistry, this is presented in such a way that it is expected that all attendees will learn something new. The only prior knowledge assumed is that of handling a Bunsen burner at some stage.

SYLLABUS:	<ul style="list-style-type: none">• Fundamental Theory of Explosions• Hazardous Area Installations• Types of Explosion Protection• Certification Schemes and Legislative Aspects• Conformity Assessment
RECOMMENDED TARGET AUDIENCE:	Suitable for practitioners/managers/supervisors/operators and manufacturers requiring an introduction to the subject and as a foundation for other more specific courses run by SGS.
COURSE PREREQUISITES:	None
POST-COURSE ASSESSMENT:	There is no specific post-course assessments following our one day courses. However, a Certificate of Attendance will be provided on completion of the course, in order for trainees to record their professional development. Note, this certificate is not a qualification and does not guarantee personnel competence.

1 DAY: HAZARDOUS AREA PRODUCTS – QA SYSTEM PLANNING

Hazardous Area Products – QA System Planning is a one day course aimed at managers and/or engineers involved in manufacturing and at QA auditors.

SYLLABUS:	<ul style="list-style-type: none">• Introduction to the terminology and protection concepts associated with Ex Products• Mandatory requirements for Ex Product manufacturing• Review of ISO/IEC 80079-34 requirements• Identification of critical features for different protection concepts including practical examples
RECOMMENDED TARGET AUDIENCE:	Suitable for anyone involved in auditing, manufacturing, inspection or testing of hazardous area products
COURSE PREREQUISITES:	None
POST-COURSE ASSESSMENT:	There is no specific post-course assessments following our one day courses. However, a Certificate of Attendance will be provided on completion of the course, in order for trainees to record their professional development. Note, this certificate is not a qualification and does not guarantee personnel competence.

1 DAY: ATEX / DSEAR OVERVIEW – INTRODUCTION TO POTENTIALLY EXPLOSIVE ATMOSPHERES AND THE DANGEROUS SUBSTANCES & EXPLOSIVE ATMOSPHERE REGULATIONS

Our ATEX / DSEAR Overview is a one day training course aimed at anyone new to the subject area, from managers to operators, needing to establish a broad overview. It is biased towards the needs of those installing and maintaining equipment, rather than those involved in manufacture.

SYLLABUS:	<ul style="list-style-type: none">• The ATEX Directives and Requirements of DSEAR – A Brief Overview• Fundamental Theory of Explosions• Area Classification – A Brief Overview• Explosion Protection Concepts – A Brief Overview• Equipment and Installation – Overview• Inspection and Maintenance Requirements – Overview
RECOMMENDED TARGET AUDIENCE:	The course is suitable for anyone new to the subject area from managers to operators needing to establish a broad overview of working in potentially explosive atmospheres.
COURSE PREREQUISITES:	None, but the course does have an engineering bias.
POST-COURSE ASSESSMENT:	There is no specific post-course assessments following our one day courses. However, a Certificate of Attendance will be provided on completion of the course, in order for trainees to record their professional development. Note, this certificate is not a qualification and does not guarantee personnel competence.



2 DAY: ATEX / DSEAR OVERVIEW – INTRODUCTION TO POTENTIALLY EXPLOSIVE ATMOSPHERES AND THE DANGEROUS SUBSTANCES & EXPLOSIVE ATMOSPHERE REGULATIONS

Our ATEX / DSEAR training course is a two day course aimed at anyone new to the subject area, from managers to operators, needing to establish a deeper understanding of explosive area requirements.

SYLLABUS:

- The ATEX Directives and Requirements of DSEAR
- Fundamental Theory of Explosions
- Risk Assessment and Hazardous Area Classification – Brief Overview
- Protection Concepts (electrical and non-electrical) – Overview
- Non-Electrical Equipment – Retrospective Ignition Hazard Assessment
- Installations in Potentially Explosive Atmospheres – Overview
- Inspection and Maintenance Requirements – Overview

RECOMMENDED TARGET AUDIENCE:

Suitable for health and safety managers, team leaders, operators, project managers and governance and contract managers. The course provides core knowledge of the subject matter without practical application.

COURSE PREREQUISITES:

None, however, the course does have an engineering bias.

POST-COURSE ASSESSMENT:

A Certificate of Achievement is issued upon successful completion of a short post-course assessment. Note, this certificate is not a qualification and does not guarantee personnel competence.

2 DAY: RISK ASSESSMENT AND EXPLOSIVE AREA CLASSIFICATION

Our Risk Assessment and Explosive Area Classification training course is a two day course suitable for practitioners/engineers requiring the necessary training to undertake Risk Assessment and Explosive Area Classifications to ensure compliance with the requirements of ATEX / DSEAR.

SYLLABUS:

- General Principles relevant to Area Classification
- Explosion Risk Assessment techniques and basic Consequence Analysis
- Methodology, practical techniques and case studies
- Use of Hazardous Area Classification Industry Codes (EI 15, SR 25 etc.)
- Hazardous Area Classification using calculations for indoor and outdoor applications
- Worked syndicate exercises of real classifications

RECOMMENDED TARGET AUDIENCE:

Suitable for practitioners/engineers requiring the necessary training to undertake Risk Assessment, and Hazardous Area Classifications to ensure compliance with the requirements of ATEX / DSEAR.

COURSE PREREQUISITES:

Good maths/physics background is preferable, with an existing detailed knowledge of ATEX hazardous areas (see SGS United Kingdom Ltd. 2 day ATEX / DSEAR course). An electrical/mechanical background is recommended.

POST-COURSE ASSESSMENT:

A Certificate of Achievement is issued upon successful completion of a short post-course assessment. Note, this certificate is not a qualification and does not guarantee personnel competence.



4 DAY: SUEPEA – SAFE USE OF EQUIPMENT IN POTENTIALLY EXPLOSIVE ATMOSPHERES

The SUEPEA course is aimed at giving an understanding of the basic hazards associated with the use of electricity and equipment in the presence of flammable gases, vapours, mists and dusts, and to show how equipment, especially electrical and instrumentation, can be treated and made safe for use with particular flammable materials in these environments.

To outline the principles of how the degree of hazard can be assessed by the classification of hazardous areas and explain how the different methods of explosion protection achieve their objective and what types of equipment may be used in particular applications and locations.

To enable the selection of equipment to be made to suit particular hazardous areas and to give an understanding of how equipment should be installed, maintained and repaired.

To give an outline of the requirements of the various equipment Standards and EN/IEC 60079 parts 10-1 and 10-2, 14, 17 and 19 in relation to gases, vapours, mists and dusts. The legal requirements relating to such equipment and installations in UK onshore and offshore locations are also covered including the ATEX Directives and the Dangerous Substances and Explosive Atmosphere Regulations (DSEAR).

The sessions will be illustrated with demonstrations of “explosions” which show the effectiveness of protection principles. Examples of protected equipment are displayed showing examples of good and defective equipment. Live closed-circuit presentations onto a full size screen are used which allows all delegates to see even the smallest detail of the equipment being demonstrated. Slides showing good and bad installations will be used during the talks. Each delegate will receive a comprehensive course manual with additional handout material. This makes an ideal reference book.

Run in Lowestoft on pre-scheduled dates throughout the year, this course can also be held at your premises for up to 15 delegates.

SYLLABUS:

DAY 1

- Introduction
- Flammable Gases, Vapours, Mists and Dusts
- Apparatus Grouping and Temperature
- Classification
- Explosion Protection Principles
- Explosive Area Classification
- Sources of Ignition
- Flameproof Concept Ex d

DAY 2

- Intrinsic Safety Ex i Concept Principles
- Increased Safety Concept Ex e
- Non Incendive Concept Ex n
- Pressurisation Concept Ex p
- Combined and other Concepts Ex q Ex o
- Standards, Certification and Marking
- ATEX Directive (Product)

DAY 3

- Selection and Installation
- Installation of Ex Equipment
- Electrical Protection
- Safety with Testing
- Maintenance and Repair of Ex Equipment
- Intrinsic Safety Ex i Applications and Systems

DAY 4

- Intrinsic Safety
- Legal Requirements
- Piper Alpha Incident Review
- ATEX Directive – Safety of Workers and Regulations

RECOMMENDED TARGET AUDIENCE:

Electrical and instrument tradesmen, technicians and engineers of all disciplines and similarly qualified personnel who work in or are likely to work in hazardous areas.

COURSE PREREQUISITES:

An understanding of electrical installations at tradesman level would be preferable but no previous knowledge of explosive area installations is essential.

POST-COURSE ASSESSMENT:

Yes. Pre- and post-course assessments are conducted. Delegates will be assessed on their understanding of the course content. The assessment will be carried out using multiple choice written examinations and informal interviews. The assessment may then be used by employers in the appraisal of employees’ ability to carry out work on explosive area electrical equipment.

Application Form for Training Course Registration (BAS-AF-009)

Please complete and return the form below to register for SGS United Kingdom Ltd. Ltd. training sessions

NAME OF ATTENDEE(S):

COMPANY NAME:

INVOICE ADDRESS:

E MAIL:

TELEPHONE:

FAX:

COMPANY REGISTRATION NO.:

COMPANY VAT NO.:

Please indicate the Training Session(s) and Date(s) for which you wish to register:

**INTRODUCTION TO HAZARDOUS ATMOSPHERES
AND EXPLOSION PROTECTION TECHNIQUES (1 DAY)**

DATE:

**HAZARDOUS AREA PRODUCTS
– QA SYSTEM PLANNING (1 DAY)**

DATE:

ATEX / DSEAR (1 DAY)

DATE:

ATEX / DSEAR (2 DAY)

DATES:

**RISK ASSESSMENT & HAZARDOUS AREA
CLASSIFICATION (2 DAY)**

DATES:

**SAFE USE OF EQUIPMENT IN POTENTIALLY EXPLOSIVE
ATMOSPHERES & INTRINSIC SAFETY AWARENESS (4 DAY)**

DATES:

Please fax (+44 1298 766601) or e-mail (jayne.lingard@sgs.com) your registration form to book your attendance. Confirmation of receipt of your registration and invoice for payment will be sent by return post or email to the address indicated above.

NAME:

SIGNATURE:

POSITION IN COMPANY:

DATE:

Where did you hear about us? (please tick appropriate box)

ONLINE SEARCH ATTENDED PREVIOUSLY WORD OF MOUTH OTHER, PLEASE SPECIFY

MAGAZINE / WEBSITE PLEASE SPECIFY

Registered in England No. 1193985 Rossmore Business Park, Ellesmere Port, Cheshire CH65 3EN

SGS United Kingdom Ltd.
Rockhead Business Park, Staden Lane, Buxton, Derbyshire SK17 9RZ
Telephone +44 (0) 1298 766600
Fax: +44 (0) 1298 766601
Email: SGS.Buxton@sgs.com

sgs.com



SGS

When you need to be sure