

SERVICES FOR THE INSTALLERS AND USERS OF Ex EQUIPMENT

There has never been any serious incident involving correctly certified Ex Equipment that has been correctly installed, inspected and maintained, but when something goes wrong, and it does happen, it is usually in the latter areas that there has been a problem.

ATEX AND DSEAR COMPLIANCE

All installations in Europe should have been fully compliant with the ATEX User Directive 1999/92/EC (and in the UK by its implementation in the Dangerous Substances and Explosive Atmospheres Regulations – DSEAR) by July 2006. For a number of years we assisted owners of existing plants to fulfil their legal obligations but, as time has passed, most plants have completed their initial assessments and created the relevant documentation. Our major activity now is in helping the owners of existing plant to keep their records up to date and to provide services where new plants are built and require a technical input to fulfil their obligations, for example in developing Area Classification (Zoning) diagrams and in completing initial inspections.

Legislation outside Europe may be different, but the basic standards are international standards and would apply, possibly with minor local variations, in almost all situations, so our technical expertise has equal validity.

APPLICABLE STANDARDS

Although ATEX and DSEAR require certain forms of documentation, they are wholly based on the contents of the following international standards:

IEC 60079-10-1	Hazardous Area Classification – gasses
IEC 60079-10-2	Hazardous Area Classification – dusts
IEC 60079-14	Selection and Installation of Equipment
IEC 60079-17	Inspection and Maintenance of Equipment
IEC 60079-19	Repair and Overhaul of Equipment

HAZARDOUS AREA CLASSIFICATION – ZONING

We can assist your team in an initial assessment and creation of the classification diagrams. The overall exercise requires a team comprising all engineering disciplines applicable on the plant, but an expert in classification is needed to lead the team. We can also act as an independent validator of an Area Classification exercise that has been done by others. Area Classification should be an ongoing activity, requiring revision as the plant changes over time. The changes may be because of different chemicals being used or produced, or because of physical changes in the plant layout. Making a doorway in an existing wall may result in significant changes to the positions of the hazardous area zones.

EQUIPMENT IGNITION RISK ASSESSMENTS

Although not so common now that the compulsory date of July 2006 has passed, we still get involved in assessing equipment that was first installed in the European Economic Area prior to July 2003 and might have been moved or sold second hand for a new application. Because of its prior use, the equipment is excluded from the scope of the ATEX Equipment Directive 2014/34/EU, but the user has to document the basis on which the equipment is deemed safe to use. This is mostly non-electrical equipment, and we can apply the ignition risk assessment methods outlined in EN ISO 80079-36 in order to provide the necessary documentation. An original risk assessment done prior to 2006 may no longer be valid if the use of the equipment has been changed.

VERIFICATION FOR FIRST USE

Both the directive and the standards put great emphasis on an independent inspection of any plant before it is first brought into use. This is a detailed inspection as defined in IEC 60079-14. It is not only a paper exercise to verify that the equipment has been correctly selected for the particular zone of installation, but also a physical inspection that the equipment is actually as specified, and that the installation has been completed in line with the appropriate standards; not just the correct cables and glands selected, but also that terminals are tight and enclosures completed to maintain the type of protection. The inspection process completes the initial "Explosion Protection Document" foreseen by the ATEX user directive and provides the basis for arranging subsequent routine inspections.

ROUTINE INSPECTIONS

IEC 60079-17 lays out a comprehensive scheme for periodic visual, close and detailed inspections. We can assist in setting up the plan and associated software or documentation to manage this process, as well as perform the actual inspections.

ADVICE AND TRAINING

We can provide targeted advice and either general or specific training.

For advice, please contact us by phone on +44(0)1298 766600 or email baseefa@sgs.com, with an outline of where you need help.

We offer general training in this area of work, both in scheduled courses and in courses run at our customers' premises. If we run a course at your premises, we can tailor it more closely to your particular environment and be guided by you on the areas where you think we should place the greatest emphasis. More information on our training services can be found at www.sgs.co.uk/hazardousatmospheretraining.

COMPETENCE

Separate from our training activity, we operate full Personnel Competence Certification within the IECEx international certification scheme. Both the directive and the standards require that those fulfilling certain functions should be competent. It is the plant owner's responsibility to ensure that competence, but the IECEx route provides an internationally acceptable means of proving competence.

For more information see <https://www.sgs.co.uk/en-gb/industrial-manufacturing/services-related-to-production-and-products/product-certification/explosion-proof-certification/iecex-competence-certification>

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WHEN YOU NEED TO BE SURE

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