



'Old Approach'

Manufacturers of electrical equipment for use in potentially explosive atmospheres have traditionally followed a voluntary product certification procedure based on the 'old approach' EC directives 76/117/EEC, 79/196/EEC and 82/130/EEC.

Each directive is addressed to the 'member states' of the European Union. It is the responsibility of each 'member state' to implement the necessary regulations nationally and to appoint bodies (Notified Bodies) to undertake the conformity assessment procedures specified in the directives.

The Department of Trade and Industry (DTI) implements the UK regulations and appoints Notified Bodies (of which Sira is one).


The 'old approach' directives were amended several times since 1976 to introduce new Harmonised European standards reflecting the state-of-the-art in the design and construction of explosion protected electrical equipment.

Certificate of Conformity

In order to demonstrate that products meet the requirements of these standards, manufacturers submitted a sample to a Notified Body together with documents describing the construction of the product.

The Notified Body examined these and the product and performed tests and assessments in order to establish compliance. Once compliance was established, the Notified Body prepared a 'Certificate of Conformity'.

On receipt of this the manufacturer could then mark the product with the certificate serial number, the name of the Notified Body and other relevant information specified in the Harmonised European standard.

The distinctive community mark  was applied to the product to indicate that it could be sold freely within the European Union without being subject to further controls.

Surveillance

The directives required that surveillance of manufacture be undertaken periodically to ensure that the certified product continued to comply with the directive and manufactured in accordance with the descriptive documents listed on the Certificate of Conformity.

The surveillance requirements were not therefore interpreted uniformly among the Notified Bodies in Europe.



'New Approach'

On 7 May 1985 the European Community Ministers agreed on a 'New Approach' to the conformity assessment of products in order to achieve the free movement of goods within the European Union.

New Approach directives set out the essential requirements, written in general terms which must be met before products may be sold anywhere in the European Union. Manufacturers whose products comply with the essential requirements and have undertaken the appropriate conformity assessment procedures must carry the CE marking.

1 July 2003 – The Compliance Deadline

Directive 94/9/EC of 23 March 1994 (ATEX 100a) concerning equipment and protective systems for use in potentially explosive atmospheres is a 'New Approach' directive, which entered into force on 1 March 1996. Compliance with the requirements of this directive became mandatory on 1 July 2003 when the 'old approach' directives were repealed.



Equipment can no longer be placed on the market with a Certificate of Conformity issued under the 'old approach'.

Manufacturers therefore now have no choice between complying with either the 'new' or the 'old' approach, as on 1 July 2003, the new approach became a mandatory requirement.

Change of Scope

The new approach directive (94/9/EC) has a much wider scope and differs from the 'old approach' directives in many ways:

- CE marking is introduced and must be applied together with the specific explosion protection markings.
- Mining (Group I) and surface (Group II) equipment are addressed together, in one directive.
- The directive applies to electrical and mechanical equipment.
- Equipment categories are introduced. Category 1 equipment is intended for use in high-risk areas and Category 3 equipment in low-risk areas.
- Dust laden atmospheres are addressed.

Essential Health and Safety Requirements (EHSRs)

Harmonised European standards are no longer listed in the directive. Instead, a set of EHSRs are specified. CEN and CENELEC, the European standards making bodies have been tasked with the responsibility of preparing standards in support of these EHSRs.

Quality System

There is more emphasis placed upon the continued compliance of certified products.


Conformity assessment addresses the design and production phases separately. There is an option to adopt a quality systems approach to cover the production phase for some equipment.

The quality systems are based on the ISO 9000 series of standards.

Surveillance

The requirements for surveillance are addressed in more detail and are therefore not open to differing interpretations.

Distinctive Community Mark

The use of the distinctive community mark  is retained, although directive 94/9/EC refers to it as 'the specific marking of explosion protection'.

Declaration of Conformity

All manufacturers of products covered by the new approach directives are required to prepare a declaration of conformity containing details of the product and how it has been demonstrated that it complies with the requirements of the directive. In most cases, this will entail the involvement of a Notified Body.

How Can Sira Help you Gain Conformity?

Sira offers a range of services to help you declare conformity to ATEX:

Initial free two-hour project meeting at Sira.

ATEX Training and Certification Support.

Expert Certification Engineers skilled in all types of explosion protection.

UKAS Accredited Laboratory with facilities to carry out a wide range of ATEX testing.

Technical File services for Category 2 non-electrical equipment.

Full range of Ex Quality Assurance Services.

More Information

For more information, or to discuss a particular project with Sira, please contact us:

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