

The Spring / Summer 2002 Ear To The Ground contained an article about the introduction of the ATEX Directives and that issue turned out to be our most requested one to date. With this in mind and the fact that there is now only a year to go before the final date for compliance with ATEX (30th June 2006) we felt that it would be timely to turn again to this subject. The original article looked closely at areas such as equipment marking, which should be familiar to most people by now. The feature below concentrates on facets of the Directives that appear to be currently causing some confusion.

The ATEX Directives

The final deadline for compliance

The two ATEX Directives are:

1 ATEX 95 (still sometimes known as ATEX 100a) 94/9/EC - "The Equipment Directive"

The final date of compliance with this directive by the equipment manufacturers was 30th June 2003. After this date, all equipment sold for use in Potentially Explosive Atmospheres had to be compliant. There were a few exception clauses but, mainly on commercial grounds, these appear to have been rarely invoked.



2 ATEX 137 99/92/EC - "The User Directive"



Any new workplace with a Potentially Explosive Atmosphere or an existing one with significant changes to operation had to be compliant immediately after the 30th June 2003 deadline. However, for existing workplaces, the company has until **30th June 2006** to comply with ATEX 137 and to reach "the minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres".

It is important to remember that all risk assessments and any resultant remedial work must be carried out ahead of the 2006 deadline. The accompanying Explosion Protection Document must be complete and available for inspection by the local regulatory body, (for example, in the UK, this is the Health and Safety Executive). Remember that the initial assessment work must be carried out early enough so as not to risk missing the deadline!

Clarification

ATEX 137 draws on sound principles of safety that should already be in operation in the workplace, so the diligent employer may not have too many major tasks to undertake in order to comply. Likewise, ATEX 95 draws heavily on the previous framework, from the viewpoint of electrical apparatus. However, two new assessment criteria have been introduced and, for many end users, some clarification will be useful:

1. Gas and Dust Zones

Most people are familiar with the distinction between the traditional gas / vapour flammable atmosphere zones (known as Zone 0, 1 and 2) and the dust zones (now known as Zone 20, 21 and 22). In the past, hazardous area equipment developed for use in gas / vapour atmospheres was generally used in dust zones too. ATEX 95 now makes a distinction between gas and dust when categorising the equipment, so something marked as suitable for use in a Gas / Vapour Zone and marked "G" is not automatically suitable for use in a Dust Zone, unless it carries the "D" marking too.



Many items of equipment that were available pre-ATEX carry only the "G" marking and it is important, particularly for those working with a dust environment that this aspect of equipment marking is considered very carefully. Equipment supplied under the Cenelectrex brand carries both Gas / Vapour and Dust marking ("GD") thus making the selection of equipment appropriate to the zone of use much easier.

2. Mechanical Devices

Previously, there were no formal standards relating to non-electrical equipment operating in hazardous areas. Under ATEX, mechanical devices are now highlighted as requiring certification or specific assessment. Only items that can be regarded as "simple apparatus" are exempt, but it can be difficult to decide what falls into this category. For example, static earthing clamps and reels (with their spring mechanisms) and fans (with their bearings) being possible sources of ignition, are subject to ATEX Approval. In all cases, the materials of construction of such devices needs to be assessed when considering their suitability for use in Potentially Explosive Atmospheres. For example, there are Intrinsically Safe electrical probes previously classed as "suitable for use in Zone 0", which have been downgraded to "Zone 1 use" owing to the type of materials used to make their housings.

Existing mechanical equipment already in use will therefore require risk assessment under ATEX to ensure that it is still suitable for use. It is far simpler to check that new mechanical devices carry appropriate ATEX marking, in exactly the same way that electrical ones would. Mechanical devices supplied under the Cenelectrex brand carry full ATEX Approval.



ATEX and Static Electricity

Another surprise for many people is that the ATEX Directives do not, in themselves, provide a list of "rules" for controlling ignition sources. Rather, they point the user at various applicable regulations that do contain the actual criteria. For example, EN50018: 2000, the Euro Norm relating to products using Exd explosion protection (flameproof or XP).

When it comes to Static Electricity, there is no specific technical standard recommended by ATEX. However, the only authoritative, pan-European document for dealing with static electricity (produced by the harmonised European Electrotechnical Committee) is the Cenelec CLC/TR 50404 Code of Practice for the avoidance of hazards due to static electricity - June 2003. This document is now widely used by safety inspection organisations and companies operating with potentially explosive atmospheres.

It is hoped that this article has given some guidance on the significant dates within ATEX and insight into some of the new areas covered. Further information about ATEX can be found on the European Union Website at www.europa.eu.int/comm/enterprise/atex/index.htm

The Cenelec Code of Practice can be purchased from local Standards bodies (eg the British Standards Institute).

Following up on the announcement in Issue 10, we are pleased to tell you that a pdf compilation issue of all of the back page technical articles featured in issues 1 to 10 is now available. As usual, your comments, suggestions and ideas for future issues are always very welcome.