

ATEX (1) Directives 94/9/EC (2) and 1999/92/EC (3) as tools for implementing the European Directives on health protection of workers potentially at risk of explosive atmospheres

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The ambitions of the European Union to achieve free trade beyond the boundaries of the Member States are conditional on harmonisation in different areas, including health, safety and environment. The European Union has adopted two Directives: **ATEX 95 (former 100a)** concerning equipment and protective systems intended for use in potentially explosive atmospheres, mainly of interest to the equipment manufacturer and supplier, on grounds of the Directive 89/392/EEC (4).

ATEX 137 (former 118a) contains the minimum requirements for improving the safety and health protection of workers at work, for working conditions, the handling of products and substances, etc. based on Directive 89/391/EEC (8).

These Directives are valid for electrical and non electrical (mechanical) devices, as well as for protective systems, intended for underground use, surface installations and installed offshore units.

In support of these harmonisation endeavours, the CEN/TC 305 (9) – “Potentially explosive atmospheres - Explosion prevention and protection” – has developed safety and protection standards for explosive atmospheres, such as gas, vapour, mist and dust.

Five working groups (WG) have been set up to coordinate and draft normative work.

- WG1** - Test methods for determining the flammability characteristics (ignition, propagation, explosion effects, etc.) of substances
- WG2** - Equipment and protective systems for use in potentially explosive atmospheres
- WG3** - Equipment and systems for explosion prevention and protection
- WG4** - Terminology and methodology in the field of potentially explosive atmospheres
- WG5** - Mining

The two ATEX Directives serve as basis for the implementation required in the respective EU Member States.

In Austria, the ATEX Directive on equipment (2) is implemented by virtue of the “Gewerbeordnung“ (Industrial Code) (5), the “Explosionsschutz-Verordnung“ (ExSV 1996) (Explosion Protection Ordinance) (10), the ATEX Directive concerning equipment user (3) is implemented by virtue of the “Verordnung explosionsfähiger Atmosphäre (VexAt)“ (Workplace explosion Protection Ordinance) (7), contained in the “ArbeitnehmerInnenschutzgesetz“ (Law on the Protection of workers) (6). The implementation of the ATEX Directive concerning equipment user foresees the draft of a document on explosion protection. In this way, the evaluation requirements contained in the “Council Directive 89/391/EEC (8) of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work“ are fully taken into consideration and implemented.

Enterprises will be highly challenged by their legal mandate and the obligation to draft explosion protection documents, and, in particular by the evaluation of explosive atmospheres. Small-Middle-Enterprises (SMEs), in particular, are expected to show considerable need for counselling, training, specialisation and continuing education, which will require considerable manpower resources specialised in technical and communicative skills.

Prospect: Much remains to be done in order to manage explosion related dangers at European level.

Bibliography:

- (1) ATEX stands for: **A**Tmosphère **EX**plosible / **EX**plosive; **EX**plosive **A**Tmospheres
- (2) ATEX Directive concerning equipment (ATEX 95 / 100a)
Directive 94/9/EC of the European Parliament and the Council of 23 March 1994 on the approximation of the laws of the Member States concerning equipment and protective systems intended for use in potentially explosive atmospheres
- (3) ATEX Directive concerning equipment user (ATEX 137 / 118a)
Directive 1999/92/EC of the European Parliament and of the Council of 16 December 1999 on minimum requirements for improving safety and health protection of workers potentially at risk from explosive atmospheres
- (4) Council Directive 89/392/EEC of 14 June 1989 on the approximation of the laws of the Member States relating to machinery
- (5) Gewerbeordnung (“Industrial Code“), Federal Law Nr. 306/1994, as amended
- (6) ArbeitnehmerInnenschutzgesetz, (“Law on the Protection of workers“), Federal Law Nr. 450/1994
- (7) Verordnung des Bundesministers für Wirtschaft und Arbeit über den Schutz von Arbeitnehmer/innen vor explosionsfähiger Atmosphäre (Verordnung explosionsfähiger Atmosphäre - VexAt) (“Ordinance on Explosion Protection at the workplace“), as this is only a draft, the precise title cannot be cited
- (8) Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work, Official Journal of the EC of 29.6.1989, nr. L 183/1
- (9) CEN stands for: European Committee for Standardization,
- (10) Explosionsschutz-Verordnung (ExSV 1996), Federal law nr. 252/1996, (“Explosion Protection Ordinance“)