

New Pressure Equipment Directive - PED 2014/68/EU

Pressure Equipment Directive

The Pressure Equipment Directive 97/23/EC was adopted by the European Parliament and the European Council in May 1997. Following a transition period the Pressure Equipment Directive became obligatory throughout the European Community from 29 May 2002. The Directive applies to the design, manufacture and conformity assessment of pressure equipment and assemblies of pressure equipment with maximum allowable pressure greater than 0.5 bar above atmospheric pressure, and covers:

- Pressure equipment - vessels, piping, safety accessories and pressure accessories. Where applicable, pressure equipment includes elements attached to pressurised parts, such as flanges, nozzles, couplings, supports, lifting lugs, etc.
- Vessels - housings designed and built to contain fluids under pressure.
- Piping - piping components intended for the transport of fluids, when connected together for integration into a pressure system.
- Safety accessories - devices designed to protect pressure equipment against the allowable limits being exceeded.
- Pressure accessories - devices with an operational function and having pressure bearing housings.
- Assemblies - several pieces of pressure equipment assembled by a manufacturer to constitute an integrated and functional whole.

Under the Community regime of the Directive, pressure equipment and assemblies above specified pressure and/or volume thresholds must:

- be safe.
- meet essential safety requirements covering design, manufacture and testing.
- satisfy appropriate conformity assessment procedures and
- carry the CE marking and other information.

Pressure equipment and assemblies below the specified pressure / volume thresholds must:

- be safe;
- be designed and manufactured according to sound engineering practice; and
- bear specified markings (but not the CE marking).

Pressure Equipment Directive 2014/68/EU

The new Directive 2014/68/EU will replace the existing Pressure Equipment Directive 97/23/EC. The 97/23/EC Directive will be repealed on the 19th of July 2016 but it will come partly into force by the 1st of June 2015. On the 1st of June 2015 Article 13 on Classification of dangerous substances of the new Directive will become mandatory. The existing PED 97/23/EC carry out a classification of the fluid groups according to its level of danger according to Directive 67/548/EC. On the 1st June 2015 will be repealed and replaced by 1272/2008 Regulation.

The major changes are the following:

- The classification of fluids will be based on the 1272/2008 Regulation (Regulation on Classification, Labelling and Packaging of substances and mixtures). Fluids with one of the following characteristics, for example, will be assigned to Group 1:

- o unstable explosives or explosives of Division 1.1, 1.2, 1.3, 1.4 and 1.5;
- o flammable gases, category 1 and 2; o oxidising gases, category 1;
- o flammable liquids, category 1 and 2;
- o flammable liquids, category 3, where the maximum allowable temperature is above the flashpoint;
- o flammable solids, category 1 and 2;
- o self-reactive substances and mixtures, type A to F;
- o pyrophoric liquids, category 1;
- o pyrophoric solids, category 1;
- o substances and mixtures which in contact with water emit flammable gases, category 1, 2 & 3;
- o oxidising liquids, category 1, 2. and 3;
- o oxidising solids, category 1, 2 and 3;
- o organic peroxides types A to F;
- o acute oral toxicity: categories 1 and 2;
- o acute dermal toxicity: categories 1 and 2;
- o acute inhalation toxicity: categories 1, 2 and 3;

- o specific target-organ toxicity – single exposure:
category 1.

All the other fluids will be under Group 2. These requirements apply to Pressure Equipment placed on the market after 1st June 2015.

- The names of the conformity assessment procedures, i.e. the "modules", will change and will be aligned to the names and definitions in other EU directives. However, the content of the renamed modules largely remain the same.

- o Module A1 has been renamed A2
- o Module B has been renamed Module B 3.1, EU Type Examination (production type)
- o Module B1 has been renamed Module B 3.2, EU Type Examination (design type)
- o Module C1 has been renamed Module C2

- Another change which concerns the manufacturers of pressure equipment is that a risk analysis is required in addition of hazard analysis. The idea of investigating not only at the hazard potential but also the probability of occurrence of these hazards is a new aspect in the safety approach to pressure equipment. A detailed guideline describing this approach will be expected from the European Committee.

- The PED Declaration of Conformity title will be altered to “EU Declaration of Conformity”. Additionally the new PED number 2014/68/EU must be introduced.

- The New Directive 2014/68/EU now incorporates the term “economic operators,” and lays down legal obligations for each. You are an economic operator under the PED if you are:

- o A manufacturer
- o An authorised representative for a manufacturer located outside of the EU
- o An importer
- o A distributor

The revision also makes clear that if an importer or distributor places pressure equipment or assemblies on the market under their own names or trademarks, or modifies the equipment in a certain way, they will be considered manufacturers and will therefore have to take legal responsibility for the product’s compliance including conformity assessment. Future articles will examine in more detail the roles and responsibilities of ‘economic operators’, the NLF concepts of ‘placing on the market’ and ‘making available on the market’ and the implications for economic operators including how the transition from 97/23/EC to 2014/68/EU will affect you.

- Some minor changes in the Essential Safety Requirements for example:
 - o ESR 2.2.3 (b) the calculation of pressure containment shall utilise the values appropriate to the properties of the material – the term "impact strength" has been replaced by "bending rupture energy".
 - o ESR 3.3 (b) under Marking and labelling: The term "product group" has been replaced by "fluid group" (the meaning is the same).

According to the New Directive 2014/68/EU, Article 48 states that “Certificates and decisions issued by conformity assessment bodies under Directive 97/23/EC shall be valid under this Directive”

Time Alignment

The key dates for the transfer into PED 2014/68/EU are outlined below

- o Transposition deadline for 2014/68/EU Art. 13 (Fluid classification) – 28th February 2015
- o Date of application – from 1st June 2015
- o Transposition deadline for the rest of 2014/68/EU – 18th July 2016
- o Date of application – from 19th July 2016

References

Link to the Directive:

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2014:189:FULL&from=EN>

If you need any help with the Pressure Equipment Directive, please get in contact. We will be happy to advise on the directive, or assist in a more structured manner if required.