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Positionspapier

CETOP Position Paper

Position officielle

PP 04

EU DIRECTIVE “PRESSURE EQUIPMENT (2014/68/EU)

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CETOP POSITION PAPER CONCERNING EC DIRECTIVE “PRESSURE EQUIPMENT” (2014/68/EU)

General statement:

Liquids or gases used in fluid power do not meet the definition in Article 13, paragraph 1 (a) and are therefore not classified as “Group 1” fluids.

Liquids or gases used in fluid power refer to fluids of group 2 (see Annex A).

Fluid power components and systems are:

Excluded from the PED (see also Commission PED Guideline A-19¹)

due to exclusion of Article 1 paragraph 2 (f) (e.g. Machinery Directive)

- piping and connecting devices for liquids of group 2 when $DN \leq 200$ whatever the pressure is, and when $DN > 200$ and $PS \leq 500$ bar
- piping and connecting devices for gas of group 2 when $DN \leq 100$ or $PS \times DN \leq 3500$ bar
- pressure accessories (e.g. filter housing) no higher than category I

due to exclusion of Article 1 paragraph 2 (j)

- fluid power actuators (motors, cylinders, ...)
- fluid power pumps
- fluid power control valves

Included in the PED

according to definitions (1), (2), (3) and (5) of Article 2

- accumulators
- piping and connecting devices for liquids of group 2 when $DN > 200$ and $PS > 500$ bar
- piping and connecting devices for gas of group 2 when $DN > 100$ and $PS \times DN > 3500$ bar
- pressure accessories (e.g. filter housing) higher than category I

¹Guidelines related to the Pressure Equipment Directive 2014/68/EU (PED):
<http://ec.europa.eu/DocsRoom/documents/17201>

**EC Directive
“Pressure Equipment” (2014/68/EU)**

Fluid power components and systems

Type of components	Excluded from the PED	Included in the PED
fluid power control valves	exclusion 2 (j) of article 1	-----
fluid power actuators (motors, cylinders, ...)	exclusion 2 (j) of article 1	-----
fluid power pumps	exclusion 2 (j) of article 1	-----
pipng and connecting devices for liquids of group 2	when $DN \leq 200$ whatever the pressure is, and when $DN > 200$ and $PS \leq 500$ bar (exclusion 2 (f) of Article 1, e.g. machinery directive)	when $DN > 200$ and $PS > 500$ bar (definition (3) of Article 2 in combination with Annex II, Diagram 9)
pipng and connecting devices for gas of group 2	when $DN \leq 100$ or $PS \times DN \leq 3500$ (exclusion 2 (f) of Article 1, e.g. machinery directive)	when $DN > 100$ and $PS \times DN > 3500$ (definition (3) of Article 2 in combination with Annex II, Diagram 7)
pressure accessories (e.g. filter housing)	no higher than category I (exclusion 2 (f) of Article 1, e.g. machinery directive)	higher than category I (definition (5) of Article 2)
accumulators	-----	definition (2) of Article 2

ANNEX 'A'**FINALISED CETOP POSITION PAPER
"PRESSURE EQUIPMENT DIRECTIVE – FLUIDS"**

Article 13 "Classification of pressure equipment" of the directive states:

"1. Pressure equipment referred to in Article 4(1) shall be classified by category in accordance with Annex II, according to an ascending level of hazard.

For the purposes of such classification fluids shall be divided into the following two groups:

(a) **group 1** consisting of substances and mixtures, as defined in points (7) and (8) of Article 2 of Regulation (EC) No 1272/2008, that are classified as hazardous in accordance with the following physical or health hazard classes laid down in Parts 2 and 3 of Annex I to that Regulation:

- (i) unstable explosives or explosives of Divisions 1.1, 1.2, 1.3, 1.4 and 1.5;
- (ii) flammable gases, category 1 and 2;
- (iii) oxidising gases, category 1;
- (iv) flammable liquids, category 1 and 2;
- (v) flammable liquids, category 3 where the maximum allowable temperature is above the flashpoint;
- (vi) flammable solids, category 1 and 2;
- (vii) self-reactive substances and mixtures, type A to F;
- (viii) pyrophoric liquids, category 1;
- (ix) pyrophoric solids, category 1;
- (x) substances and mixtures which in contact with water emit flammable gases, category 1, 2 and 3;
- (xi) oxidising liquids, category 1, 2 and 3;
- (xii) oxidising solids, category 1, 2 and 3;
- (xiii) organic peroxides types A to F;
- (xiv) acute oral toxicity, category 1 and 2;
- (xv) acute dermal toxicity, category 1 and 2;
- (xvi) acute inhalation toxicity, category 1, 2 and 3;
- (xvii) specific target organ toxicity – single exposure, category 1.

Group 1 comprises also substances and mixtures contained in pressure equipment with a maximum allowable temperature TS which exceeds the flashpoint of the fluid;

(b) **group 2** consisting of substances and mixtures not referred to in point (a)."

CETOP POSITION ON CLASSIFICATION OF FLUID WITH REGARD TO ARTICLE 13 OF THE PRESSURE EQUIPMENT DIRECTIVE:

Hydraulic fluids that are classified in **EN ISO 6743-4** "*Lubricants, industrial oils and related products (Class L) – Classification - Part 4: Family H (Hydraulic systems)*" do not meet the definitions given in Article 13, paragraph 1 (a) and are therefore not classified as 'Group 1' fluids.

When using any hydraulic fluid, the user should always refer to the material safety data sheet (MSDS), taking into account PED Commission Guideline B-41¹.

¹Guidelines related to the Pressure Equipment Directive 2014/68/EU (PED):
<http://ec.europa.eu/DocsRoom/documents/17201>

Guideline A-19

Pressure Equipment Directive PED 2014/68/EU Commission's Working Group "Pressure"

Guideline related to: Article 1 paragraph 2 (f); Article 1 paragraph 2 (j)

Question	Are fluid power components and systems using liquids or gases of group 2 covered by PED?
Answer	<p>For fluid power components and systems using liquids or gases of group 2 according to Article 13 paragraph 1 (b), the following applies :</p> <ol style="list-style-type: none">1. Excluded from PED<ol style="list-style-type: none">1.1. due to exclusion of Article 1 paragraph 2 (f) (e.g. machinery directive)<ul style="list-style-type: none">- piping and connecting devices for liquids of group 2 when $DN \leq 200$ whatever the pressure is, and when $DN > 200$ and $PS \leq 500$ bar- piping and connecting devices for gases of group 2 when $DN \leq 100$ or $PS \leq 3500$ bar- pressure accessories (e.g. filter housing) no higher than category I- fluid power actuators, pumps and control valves no higher than category I.1.2. due to exclusion of Article 1 paragraph 2 (j) (refer to guideline A-11)<ul style="list-style-type: none">- fluid power actuators (e.g. motors, cylinders, ...)- fluid power pumps- fluid power control valves (distributors).2. Included in the PED<ul style="list-style-type: none">- all accumulators (bladder, piston and diaphragm types)- pressure equipment not excluded by (1) above.
Reason	
Note	

Accepted by Working Party Guidelines (WPG) on:	14/10/2015
Accepted by Working Group Pressure (WGP) on:	08/01/2016

**Pressure Equipment Directive PED 2014/68/EU
Commission's Working Group "Pressure"**

Guideline related to: Article 13

Question	Where to find additional information on classification of fluids based on PED Article 13 as of 1 June 2015?		
Answer	As of 1 June 2015 classification of fluids is based on article 13 of PED 2014/68/EU. Article 13 paragraph 1 (a) lists the physical and health hazard classes and categories for substances and mixtures included in Group 1. The classification is based on the CLP Regulation (EC) No 1272/2008. The table below provides an overview of the hazard classes and categories and the corresponding hazard statements according the CLP Regulation including references to the criteria and label elements in the CLP Regulation.		
CLP hazard classes and categories (as listed in article 13 of PED)	Criteria according to Annex I to CLP	Hazard statement according to CLP	Label elements according to Annex I to CLP
(i) unstable explosives or explosives of Divisions 1.1, 1.2, 1.3, 1.4 and 1.5;	Section 2.1.2	H200, H201, H202, H203, H204, H205	Table 2.1.2
(ii) flammable gases, category 1 and 2;	Section 2.2.2	H220, H221	Table 2.2.3
(iii) oxidising gases, category 1;	Section 2.4.2	H270	Table 2.4.2
(iv) flammable liquids, category 1 and 2;	Section 2.6.2	H224, H225	Table 2.6.2
(v) flammable liquids, category 3 where the maximum allowable temperature is above the flashpoint;	Section 2.6.2	H226	Table 2.6.2
(vi) flammable solids, category 1 and 2;	Section 2.7.2	H228	Table 2.7.2
(vii) self-reactive substances and mixtures, type A to F;	Section 2.8.2	H240, H241, H242	Table 2.8.1
(viii) pyrophoric liquids, category 1;	Section 2.9.2	H250	Table 2.9.2
(ix) pyrophoric solids, category 1;	Section 2.10.2	H250	Table 2.10.2