

## Guidelines

5/18/07

## 1. Scope and Exclusions

| Guideline 1/1  |  |
|--|--|
| <p>[Original version as adopted on: 28 Jan 1999]</p> <p>Pressure equipment directive 97/23/EC<br/>Commission's Working Group "Pressure"</p> <p>Guideline related to: <a href="#">Article 1 Paragraph 3.19</a> , <a href="#">Article 3 Paragraph 1.1</a> , <a href="#">Annex II Table T2</a></p> <p><b>Question:</b> Are portable extinguishers within the scope of the Pressure Equipment Directive or are they covered by the exclusion in Article 1.3.19 for equipment covered by the ADR?</p> <p><b>Answer:</b> They are covered by the Pressure Equipment Directive.</p> <p><b>Reason:</b><br/>Portable extinguishers are specifically mentioned in Article 3.1.1.a) second indent and Annex II, Table 2 of the Pressure Equipment Directive.</p> <p>Furthermore, they are also specifically mentioned in the ADR in marginal 2201 under item 6°A 1044. In marginal 2201a, paragraph 2 it says:</p> <p><i>"Gases and articles handed over for carriage in conformity with the following provisions are not subject to the requirements or provisions relating to this Class set out elsewhere in this Annex or in Annex B:</i></p> <p><i>j) The following articles of 6°A, manufactured and filled according to the regulations of the manufacturing State, packaged in strong outer packaging :</i></p> <p><i>- 1044 Fire extinguishers provided with protection against inadvertent discharge."</i></p> <p>Therefore, the ADR does not define any requirements for extinguishers. These extinguishers are not covered by the exclusion in Article 1.3.19 of the PED.</p> |  |
| Accepted by WPG on: 17 Sep 1998  |  |
| Accepted by Working Group "pressure": 28 Jan 1999  |  |
| Remarks:   |  |
| Guideline 1/2  |  |

[Original version as adopted on: 08 Nov 1999]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 2.1](#)

**Question:** Could a tank or a tank container (pressure vessel) used for transport by road or rail be within the scope of the directive ?

**Answer:** Yes. If the PS of the tank or tank container is more than 0,5 bar, e.g. to allow for the use of compressed air to help filling or emptying, and it is not excluded by Article 1.3.19, the requirements in PED shall apply.

**Note:** Refer also to guideline [1/14](#)

Accepted by WPG on: 11 Jun 1999

Accepted by Working Group "pressure": 08 Nov 1999

Remarks:

### Guideline 1/3

[Original version as adopted on: 28 Jan 1999 and modified on 17 Mar 2004]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1](#) , [Annex I Section 3.4](#)

**Question:** Are replacements, repairs or modifications of pressure equipment in use covered by the Pressure Equipment Directive (PED) ?

**Answer:**

- 1) Entire change: the complete replacement of an item of pressure equipment by a new one is covered by the PED.
- 2) Repairs are not covered by the PED but are covered by national regulations (if any).
- 3) Pressure equipment which has been subject to important modifications that change its original characteristics, purpose and/or type after it has been put into service has to be considered as a new product covered by the directive.  
*This has to be assessed on a case by case basis.*

**Note 1:**

Operating instructions in the sense of the PED (see guideline [8/3](#)) cover documentation concerning safe operation including maintenance, but not necessarily detailed information concerning repair or modification of the equipment (e.g. material certificates or qualification of welding procedures). Such information may be provided by a specific contractual agreement between manufacturer and user.

**Note 2 :**

The directive applies only to the first placing on the market and putting into service.  
See "blue guide" chapter 2.1

Accepted by WPG on: **24 Feb 2004**

Accepted by Working Group "pressure": **17 Mar 2004**

**Remarks:**

#### Guideline 1/4

[Original version as adopted on: *29 Jan 1999*]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 2.1.2](#)

**Question:** When is a modification of a piping system not covered by the PED?

**Answer:** When the content, main purpose and safety systems remain essentially the same, it may be regarded as a non important modification of an existing piping system and is therefore not covered by the PED.

**Reason:**  
See guideline [1/3](#)

Accepted by WPG on: **13 Oct 1998**

Accepted by Working Group "pressure": **29 Jan 1999**

**Remarks:**

#### Guideline 1/5

[Original version as adopted on: *08 Nov 1999*]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 3](#) , [Annex II](#)

**Question:** Which conformity assessment category applies to vessel with a volume less than or equal to 0.1 litre?

**Answer:**

| <b>Vessels referred to in Article 3</b><br>(volume less than or equal to 0,1 litre) | <b>Table in Annex II</b> | <b>Category</b><br>(Volume less than or equal to 0,1 litre)                 |
|---|--------------------------|---|
| 1.1(a) first indent   | 1                        | If PS $\geq$ 200 bar, then Article 3.3 applies otherwise see point 3 below  |
| 1.1(a) second indent  | 2                        | If PS $\geq$ 1000 bar, then Article 3.3 applies otherwise see point 3 below |
| 1.1(b) first indent   | 3                        | If PS $\geq$ 500 bar, then Article 3.3 applies otherwise see point 3 below  |
| 1.1(b) second indent  | 4                        | If PS $\geq$ 1000 bar, then Article 3.3 applies otherwise see point 3 below |

**Reason:**

1. The conformity assessment categories for vessels with a volume less than or equal to 0,1 litre cannot be determined from Tables 1, 2, 3 and 4 because the Tables are not specified for volumes less than 0,1 litre. However, Article 3.paragraph 1 together with Article 3.paragraph 3 can be used to determine which vessels must satisfy the essential safety requirements and those that must be designed and manufactured according to the Sound Engineering Practice (SEP) of a Member State.

2. If a vessel has a volume less than or equal to 0,1 litre, and a value of PS above the limits defined in Article 3.paragraph 1, then the vessels must satisfy the essential safety requirements of Annex I.

3. In the absence of specific information in the Tables of Annex II for the conformity assessment of vessels described in point 2 above, the manufacturer may choose any module, or single combination of modules, set out in section 1 of Annex II.

( editorial corrected on 18.06.2002)

Accepted by WPG on: **21 Apr 1999**

Accepted by Working Group "pressure": **08 Nov 1999**

**Remarks:**

### Guideline 1/6

[Original version as adopted on: *28 Jan 1999*]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 2.1.3](#) , [Annex I Section 2.10](#)

**Question:** How will pressure gauges be classified?

**Answer:** A pressure gauge may possibly be regarded as a protective device within the meaning of Annex I, point 2.10 b.

The Directive does take account of these items of equipment but they are not safety accessories within the meaning of Article 1, paragraph 2.1.3.

They are pressure accessories within the meaning of Article 1, paragraph 2.1.4, which may be covered by CE marking for high pressure.  
(See guideline [1/5](#) on Article 3 on low volume-high pressure equipment).

Accepted by WPG on: **13 Oct 1998**

Accepted by Working Group "pressure": **28 Jan 1999**

**Remarks:**

### Guideline 1/8

[Original version as adopted on: *28 Jan 1999* and modified on *28 Jun 2005*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 2.1.4](#)

**Question:** What is a pressure accessory ?

**Answer:** According to the definition (see [Article 1 Paragraph 2.1.4](#)) pressure accessory means a device with an operational function and having an identifiable pressure-bearing housing - i.e. the device has a function additional to that of containing pressure.

The pressure accessory can be attached to other pressure equipment for example by bolting, brazing, soldering or welding. A pressure accessory has a specific operational function (or functions), which could be for example: measurement, change the mechanical characteristics of the fluid flow, taking a sample, removal of sediment or gas. A pressure accessory does not necessarily have moving parts.

Typical examples of pressure accessories are: valves, pressure regulators, measurement chambers, pressure gauges, water gauge glasses, filters, expansion joints and manifolds.

The following examples are not pressure accessories:

- safety valve (a safety accessory)
- cover, collar, gasket, flange, bolt (components of a pressure equipment)
- sight glass with its frames (components of a pressure equipment)
- Y-shape or similar fittings (piping components)

Accepted by WPG on: **26 Nov 1998**

Accepted by Working Group "pressure": **28 Jan 1999**

**Remarks:**

### Guideline 1/9

[Original version as adopted on: 28 Jan 1999]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 2.1.2](#)

**Question:** Are piping components, such as a pipe or system of pipes, tubing, fittings, expansion joints, hoses, or other pressure bearing components, considered to be piping when they are placed on the market as individual components?

**Answer:** Individual piping components, such as a pipe or system of pipes, tubing, fittings, expansion bellows, hoses, or other pressure bearing components are not "piping".  
However, a single pipe, or a system of pipes, for specific application, may be classed as "piping", provided all appropriate manufacturing operations such as bending, forming, flanging and heat treatment, have been completed. Some piping components (e.g. expansion joints) may be considered to be pressure accessories (See guideline [1/8](#)).

**Remark:** Please note the definitions related to expansion joints and to expansion bellows:

Expansion joints are devices containing one or more bellows used to absorb dimensional changes such as those caused by thermal expansion or contraction of a pipeline, duct or vessel.

Expansion bellows are flexible elements of an expansion joint consisting of one or more convolutions and the end tangents.

Accepted by WPG on: 27 Nov 1998

Accepted by Working Group "pressure": 28 Jan 1999

Remarks:

### Guideline 1/10

[Original version as adopted on: 27 Jan 2003]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 3.19](#) , [Article 3 Paragraph 1.1](#)

**Question:** Are the bottles for breathing equipment covered by the Pressure Equipment Directive? (GL revised 27-Jan-2003)

**Answer:** Bottles/gas cylinders for breathing apparatus are covered by the Pressure Equipment Directive, for example:  
- bottles/gas cylinders for compressed air, oxygen or other breathable mixtures, such as portable cylinders for divers, fire fighters and asbestos workers.  
The following bottles for breathing equipment are not in the scope of the Pressure Equipment Directive:

- gas cylinders to be installed in oxygen/air centres of hospitals.
- cryogenic receptacles.

According to the circumstances of the transport, the requirements of ADR/RID/IMDG/ICAO may also be applicable. If the manufacturer intends bottles to be used both for breathing equipment and also for transport of dangerous goods, they shall meet the requirements of both directives and bear both the CE-mark and the Π-mark (see guideline [1/30](#)).

**Reason:** The specific reference to bottles for breathing apparatus in Article 3 limits the general exclusion in Article 1, section 3.19.

Furthermore the Transportable Pressure Equipment Directive (TPED) specifically excludes gas cylinders for breathing appliances (Recital 9 and Article 2, section 1).

**Note:** A breathing apparatus is a personal protective equipment and therefore designed to be worn or held by an individual.

Accepted by WPG on: **04 Dec 2002**

Accepted by Working Group "pressure": **27 Jan 2003**

**Remarks:**

### Guideline 1/11

[Original version as adopted on: *08 Nov 1999* and modified on *03 Nov 2003*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 3.10](#)

**Question:** How can article 1.3.10 more specifically be understood, especially the wording "for which pressure is not a significant design factor"?

**Answer:**

- Article 1.3.10 excludes pressurised equipment comprising casings or machinery from the scope of the PED: a) if this equipment is primarily dimensioned for loads other than pressure, i.e. for which pressure is not the significant design factor, and  
 if it is primarily designed to move or rotate or fulfil other functions than pressure containment.
- Such equipment may include : - engines including turbines and internal combustion engines;  
 - steam engines, gas/steam turbines, turbo-generators, compressors, pumps and actuating devices and curing moulds for tyres.
- For such equipment, pressure can be considered as not being a significant factor, if other factors alone or together are more significant than pressure. Other factors are, e.g.:  
 - dynamic loads with vibrations or very high number of cycles;  
 - thermal loads together with a complicated form of structure;  
 - stiffness of the structure because of external mechanical loads or requirements related to high weight;  
 - requirements related to low elongation, low change of diameter or low other deformation because of functional requirements to rigidity.  
 This shall be decided on a case by case basis, taking into account established safe industrial practice.
- An over-dimensioning as such shall not result in exclusion from the PED with regard to article 1.3.10.

**Explanatory notes:**

1-No factor is included in the requirement of the PED. Any factor given in a guideline would therefore go beyond the PED and should be avoided.

2-In a factor were used to decide whether the requirements of the PED are applicable or not, over dimensioning could result in a case where the pressure equipment need not fulfil the requirement of the PED. This is not acceptable.

3-To decide on the exception with a factor of over dimensioning would consequently result in the necessity of a detailed stress analysis, especially if this factor would have been connected to the primary membrane stress. This is far beyond the present established industrial practice.

4-Furthermore, there is a danger that the more important influences explained in paragraphs 1 to 3 could be overlooked if the decision whether the pressure is a significant design factor were based on a factor of over dimensioning only.

Accepted by WPG on: **10 Jun 1999**

Accepted by Working Group "pressure": **08 Nov 1999**

**Remarks:**

### Guideline 1/12

[Original version as adopted on: *07 Sep 2004*]

**Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 3.6](#) , [Article 1 Paragraph 3.10](#)

**Question:** Are hermetically sealed and semi-hermetic compressors in the scope of the directive?

**Answer:**

- 1) Equipment classified as no higher than category I as defined by PED and falling in the scope of one of the directives as listed in article 1, paragraph 3.6, e.g. for low voltage or machinery, is excluded from the scope of PED. This applies to hermetic and semi-hermetic compressors no higher than category I.
- 2) The exclusion in article 1, paragraph 3.10 is not applicable to hermetic compressors because pressure is a significant design factor since their external envelope has as its principal function to ensure that the refrigerant is confined.
- 3) For semi-hermetic compressors which include moving parts and for which the external envelope is primarily designed for mechanical loads (speed and vibration), thermal load (to limit the possible deformation due to temperature), stiffness of the structure (external mechanical loads and weight of the equipment), an exclusion based on article 1 paragraph 3.10 is to be assessed on a case by case basis (see guideline [1/11](#), ).

**Note:**



In application of the definition of "volume" given in article 1, paragraph 2.5, the volume of the mechanical parts is to be excluded from the volume to be taken into account but not the volume of the oil contained.

Accepted by WPG on: **15 Apr 2004**

Accepted by Working Group "pressure": **07 Sep 2004**

**Remarks:**

#### Guideline 1/13

[Original version as adopted on: *28 Jan 1999*]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1](#)

**Question:** Is the pressure equipment directive applicable to vacuum insulation of pressure vessels?

**Answer:** Yes.

**Reason:** Vacuum casings which do not have a maximum allowable pressure greater than 0.5 bar are therefore not pressure equipment in their own right. However as structural elements attached to pressurised parts, they are part of pressure equipment and any negative effects of the vacuum casing and insulation on the pressurised parts must be taken into account and avoided.

Accepted by WPG on: **27 Jan 1999**

Accepted by Working Group "pressure": **28 Jan 1999**

**Remarks:**

#### Guideline 1/14

[Original version as adopted on: *27 Jan 2003*]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 2.1](#)

**Question:** If transport tanks for use in any mode of transport have been designed, manufactured and approved for the carriage of dangerous goods under the ADR, RID, IMDG code or the ICAO convention, will it also be necessary for them to comply with the PED when they are placed on the market? **(GL revised 27-Jan-2003)**

**Answer:** No. Article 1.3.19 of the PED excludes transport tanks covered by ADR, RID, IMDG code or the ICAO convention. If a manufacturer declares that transport tanks designed, manufactured and approved for the carriage of dangerous goods under the ADR, RID, IMDG code or the ICAO convention, are intended to be used for both dangerous and non-dangerous goods then the exclusion in Article 1.3.19 may still apply (see guideline [1/30](#)).

On the other hand, if a transport tank is not designed, manufactured and approved under the ADR, RID, IMDG code or the ICAO convention, then it will be limited to the transport of non-dangerous liquids and solids. These transport tanks will not be excluded from the PED and will be covered if they are in the scope.

All transport tanks covered by the agreements and conventions in Article 1.3.19 must be designed and built to a maximum allowable working pressure, satisfy the requirements for initial pressure testing and undergo periodical examination throughout their service life.

These requirements deal with safe containment and hazards due to pressure, but primarily only for the safety of transport. With regard to the use of a transport tank, for example as a storage tank, or being emptied outside the scope of the transport codes, consideration should be given to applicable national legislation. For example, the question of safety valves in the tank itself or in the emptying station should then be considered. This paragraph does not apply to tanks bearing both CE-mark and П-mark (see guideline [1/30](#)).

**Note:** Refer also to guideline [1/2](#)

Accepted by WPG on: **04 Dec 2002**

Accepted by Working Group "pressure": **27 Jan 2003**

**Remarks:**

### Guideline 1/15

[Original version as adopted on: *08 Nov 1999*]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 2.1.4](#)

**Question:** Is the operational function of a pressure accessory, as described in article 1 section 2.1.4 covered by the directive?

**Answer:** Yes, if a pressure related hazard is identified in relation with the operational function of the pressure accessory (see also guideline [1/8](#) ).

Examples for valves:

- Where a valve is intended to be used as the sole mean of isolation of the content of an item of pressure equipment from the atmosphere, or from downstream equipment which is not designed to withstand the upstream pressure, the internal parts of the valve which contribute to the isolation must satisfy the relevant essential safety requirements in Annex 1;

- Where a valve is intended to be fitted between a pressure vessel and pressure piping and both are designed to contain pressure, no pressure related hazard exist in relation to the operational function of the valve, therefore internal parts of the valve do not have to satisfy the relevant essential safety requirements in Annex 1.:

The intended use of the valve shall be described in the operating instructions, and where it is to be used as a sole mean of isolation, it shall meet the essential safety requirements of the directive.

Accepted by WPG on: **15 Jul 1999**

Accepted by Working Group "pressure": **08 Nov 1999**

**Remarks:**

### Guideline 1/16

[Original version as adopted on: *29 Jun 2000*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 3.2](#)

**Question:** Article 1, paragraph 3.2 excludes from the directive "networks for the supply, distribution and discharge of water and associated equipment". Clarification is required in respect of water, networks and associated equipment in this context?

**Answer:** 'Water' means: potable water, waste water and effluent, and sewage.  
'Networks and associated equipment' means: complete systems for the supply distribution and discharge of water. They extend up to the point of use in buildings, industrial sites and plants, and include equipment closely related to these networks such as water meter and line valves. Pressure vessels, such as expansion vessels, however are not considered to be part of such 'networks and associated equipment' and are therefore not excluded..

**Note:** For district heating water, refer to guideline [1/18](#) .

**Reason:** It was clearly the intention of the Council. It should be noted that some linguistic versions are unclear on this point.

Accepted by WPG on: **03 May 2000**

Accepted by Working Group "pressure": **29 Jun 2000**

**Remarks:**

### Guideline 1/17

[Original version as adopted on: *08 Nov 1999*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 3.1](#)

**Question:** What is the meaning of the expression "standard pressure equipment" in article 1 § 3.1 on pipelines

**Answer:** A standard pressure equipment is not specially designed and manufactured for a specific conveyance pipeline, but is intended for use in a number of applications, including other conveyance pipelines or, for example, industrial piping.

Typical examples of standard pressure equipment annexed with pipelines, pressure reduction stations or compression stations may include : measuring devices, valves, pressure regulators, safety valves, filters, heat exchangers, vessels.

Such equipment is covered by the directive.

Accepted by WPG on: **03 Sep 1999**

Accepted by Working Group "pressure": **08 Nov 1999**

**Remarks:**

**Guideline 1/18**

[Original version as adopted on: *23 Apr 2000*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 3.1](#)

**Question:** Are pipelines for conveyance of district heating water covered by the directive?

**Answer:** No. According to article 1 point 3.1 "...a system of piping designed for the conveyance of any fluid ....to or from an installation (onshore or offshore)...." is excluded from the directive. This covers pipelines for district heating, whereas standard pressure equipment in e.g. boiler houses and pumping stations are included (refer to guideline [1/17](#)).

**Reason:** It has from the beginning been the intention that these pipelines should be excluded from the directive. This is obvious from the original Commission proposal from 1993-07-14, where, in the definitions (article 1 point 2.1.2), it is stated that "Piping" does not include pipelines and their accessories specifically designed for the conveyance of district heating fluids. This was later moved to the generalised exclusion in article 1 point 3.1.

---Confirmed on **29 June 2000**

Accepted by WPG on: **25 Oct 1999**

Accepted by Working Group "pressure": **23 Mar 2000**

**Remarks:**

### Guideline 1/19

[Original version as adopted on: *24 Mar 2000*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 3.6](#) , [Article 1 Paragraph 3.10](#)

**Question:** Are fluid power components and systems using liquids or gases of group 2 covered by PED ?

**Answer:** For fluid power components and systems using liquids or gases of group 2 according to Article 9.2.2, the following applies:

(1) Excluded from PED :

(1.1) due to exclusion 3.6 of Article 1 (e.g. machinery directive :

- piping and connecting devices for liquids of group 2 when DN  $\geq 200$  whatever the pressure is, and when DN: 200 and PS  $\geq 500$  bar;
- piping and connecting devices for gases of group 2 when DN  $\geq 100$  or PS DN  $\geq 3500$  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 3.10 of Article 1 (refer to guideline [1/11](#));

- fluid power actuators (e.g. motors, cylinders, ....);
- fluid power pumps;
- fluid power control valves (distributors).

(2) Included in the PED :

- all accumulators (bladder, piston and diaphragm types);
- pressure equipment not excluded by (1) above.

Accepted by WPG on: **25 Oct 1999**

Accepted by Working Group "pressure": **24 Mar 2000**

**Remarks:**

### Guideline 1/20

[Original version as adopted on: *03 Oct 2002*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 2.1.3](#) , [Annex I Section 2.10](#) , [Annex I Section 2.11](#)

**Question:** When is a measuring or control system considered as a safety accessory under the PED?

**Answer:** A measuring system alone cannot be considered as a safety accessory, as a safety accessory as defined in PED necessarily requires :  
 - a measuring or detection function and  
 - an activation function for correction, or shutdown, or shutdown and lockout.

In order for a control system to be classified as a safety accessory, it shall be designed and placed on the market as an ultimate means of protecting pressure equipment from exceeding allowable limits, and therefore it shall meet the corresponding essential requirements of Annex I, section 2.11.

**Note:**

It is foreseeable that some measuring or control devices could be inadvertently used as safety accessories. Where this is possible manufacturers should include an appropriate warning in their instructions for use.

See also Guidelines: [1/25](#) and [2/16](#)

Accepted by WPG on: **19 Jun 2002**

Accepted by Working Group "pressure": **03 Oct 2002**

**Remarks:**

**Guideline 1/21**

**[Original version as adopted on: ]**

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:**

**Question:** How are the different modules applied to "controlled safety pressure relief systems" (CSPRS) and "safety related measurement control and regulation" (SRMCR) ?

**Answer:**

Accepted by WPG on:

Accepted by Working Group "pressure":

Remarks:

#### Guideline 1/22

[Original version as adopted on: *19 Jun 2000*]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 2.1](#)

**Question:** What guidance can be given regarding the application of the Directive to component parts of pressure equipment such as flanges, dished ends and nozzles ?

**Answer:** If these component parts are incorporated to an item of pressure equipment, the relevant requirements of the directive will apply.  
However, these component parts do not meet the definition of pressure equipment in Article 1.2.1, therefore they shall not bear the CE mark.  
It is the responsibility of the pressure equipment manufacturer to ensure that the component parts enable the pressure equipment to meet the essential safety requirements of the directive.

(See also guideline [1/8](#))

Accepted by WPG on: **04 May 2000**

Accepted by Working Group "pressure": **29 Jun 2000**

Remarks:

#### Guideline 1/23

[Original version as adopted on: *24 Mar 2000*]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 3 Paragraph 1.1](#)

**Question:** Is the operational function of portable extinguishers covered by PED ?

**Answer:** No, only the aspects of pressure-related hazards are covered.  
(see also guideline [1/1](#))

Accepted by WPG on: **14 Dec 1999**

Accepted by Working Group "pressure": **24 Mar 2000**

**Remarks:**

#### Guideline 1/24

[Original version as adopted on: *03 Oct 2002*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 2.7](#)

**Question:** According to the definition of Article 1 paragraph 2.7 fluids may contain a suspension of solids.  
 Is a system of solid pieces or liquid drops distributed in a gas still a fluid in the sense of the PED?

**Answer:** Yes .

**Note:** Despite the use of the term suspension in Article 1 paragraph 2.7, which in some languages only refers to a liquid containing solids, it is obvious from the context of this definition that a gas containing pieces of solids or drops of liquid is also to be considered a fluid.

Accepted by WPG on: **19 Jun 2002**

Accepted by Working Group "pressure": **03 Oct 2002**

**Remarks:**

#### Guideline 1/25

[Original version as adopted on: *29 Jun 2000*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 2.1.3](#) , [Article 1 Paragraph 2.1.4](#)

**Question:** Are the sensors which are used as part of a safety system to protect pressure equipment covered by the PED ?

**Answer:**

A sensor alone does not meet the definition of a pressure accessory, as per Article 1.2.1.4 (see guideline [1/8](#)), nor the definition of a safety accessory, as per Article 1.2.1.3. Consequently, no CE marking (due to the PED) is to be put on the individual sensor.

The conformity assessment procedure and essential safety requirements of the directive relate to the complete safety system. The requirements to the sensor may be different depending upon the safety concept employed (for example redundancy or fail safe, see Annex I point 2.11.1).



**Note:** For the purpose of this guideline, sensor means "element of a measuring instrument or measuring chain that is directly affected by the measurand" as defined in the International Vocabulary of Basic and General Terms in Metrology, prepared by BIPM, OIML, ISO, IEC.

Accepted by WPG on: **05 Mar 2000**

Accepted by Working Group "pressure": **29 Jun 2000**

**Remarks:**

### Guideline 1/26

[Original version as adopted on: *28 Nov 2001*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 3.6](#)

**Question:** Article 1, section 3 states that all "equipment classified as no higher than category I under Article 9 of this Directive and covered by one of the following Directives: [&.] are excluded from the scope of this Directive:".

From the scope of the Directive related to machinery, 98/37/EC, boilers and pressure vessels are explicitly excluded.

Which rules apply for boilers and pressure vessels classified in category I and installed in a machinery falling under the Directive 98/37/EC?

**Answer:** The PED applies when they are placed separately on the market.

As boilers and pressure vessels are explicitly excluded from the Machinery Directive 98/37 the PED exclusion of PED 1.3.6 does not apply.

However, when a product which is placed on the market is covered by the machinery directive, the exclusion of article 1 paragraph 3.6 applies to any other item of pressure equipment not higher than category I which is a part of that machine if that item has not been separately placed on the market (i.e. the pressure equipment directive does not apply). In this case, the essential safety requirements of PED are a useful way to obtain the appropriate safety level regarding pressure hazard.

**Note:** This does not prohibit CE-marked pressure equipment to be included in machinery, or other products.

---- Reservation from France due to linguistic ambiguity (to be resolved)----

Accepted by WPG on: **29 Sep 2001**

Accepted by Working Group "pressure": **28 Nov 2001**

**Remarks:**

### Guideline 1/27

[Original version as adopted on: *23 May 2002*]

**Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"**

**Guideline related to: [Article 1 Paragraph 3.14](#)**

**Question:** What is meant by the term mobile off-shore unit ?

**Answer:** A mobile offshore unit is an offshore unit that is not intended to be placed permanently or long term on the field, but is designed to be moved from location to location whether or not it has a means of propulsion or of lowering legs to the seafloor (e.g. a unit used solely for exploration). For example, floating units intended for production, such as FPSO 's (Floating Production, Storage and Offloading installations usually based on tanker designs) and FPP 's (Floating Production Platforms based on semi-submersible vessels), are not considered to be mobile.

**Note:** Items of pressure equipment specifically intended for mobile offshore units are excluded from the PED. However, items of pressure equipment intended to be installed on both FPSO 's/FPP 's and mobile offshore units are not excluded from the PED.

Accepted by WPG on: **13 Mar 2002**

Accepted by Working Group "pressure": **23 May 2002**

**Remarks:**

**Guideline 1/28**

**[Original version as adopted on: 03 Apr 2001]**

**Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"**

**Guideline related to: [Article 1 Paragraph 3.1](#)**

**Question:** Are conveyance pipeline stations such as compressor, reduction, metering stations covered by PED?

**Answer:** These stations are pressurised systems which may include compressors, heat exchangers, valves, filters, etc. When they are specifically designed for pipelines, they are considered as annexed equipment, and as such are excluded from PED, according to Article1, paragraph 3.1. However, this exclusion does not apply to standard pressure equipment which may be found in these stations, see guideline [1/17](#).

Accepted by WPG on: **21 Feb 2001**

Accepted by Working Group "pressure": **03 Apr 2001**

**Remarks:**

**Guideline 1/29**

[Original version as adopted on: 28 Jun 2005]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

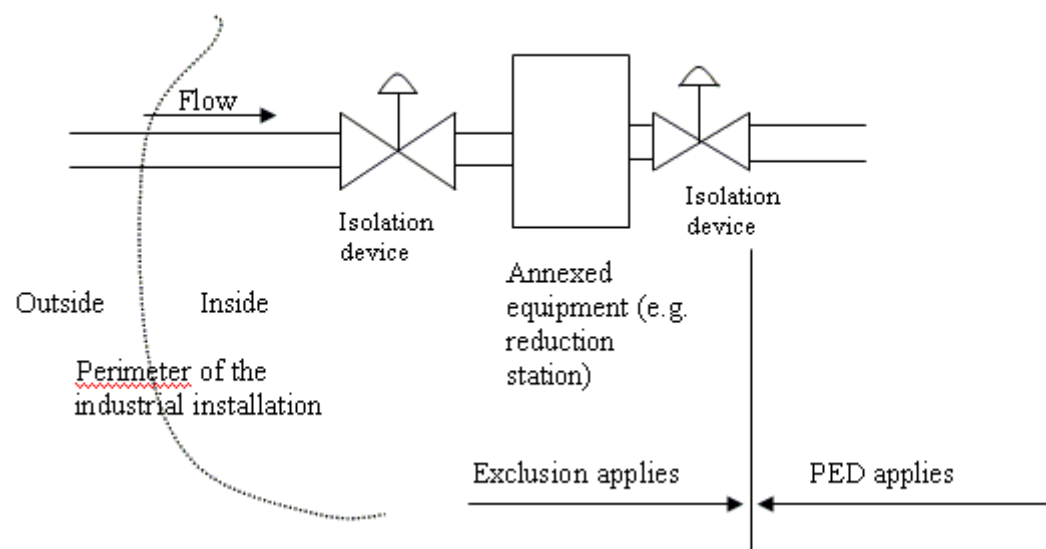
Guideline related to: [Article 1 Paragraph 3.1](#)

**Question:** Where does the exclusion under Article. 1, paragraph 3.1 end when a pipeline crosses the perimeter of an industrial installation ?

**Answer:** a) The exclusion of Article. 1, paragraph 3.1 ends at the isolation device immediately inside perimeter of the industrial installation.

b) However, as shown in the diagram below, when annexed equipment designed specifically for pipelines, e.g. a reduction station, is involved, it is excluded from the PED.

See also guidelines [1/17](#) and [1/28](#).



Note 1: The excluded annexed equipment can be a multi-stage station or a series of stations, designed as a functional whole specifically for the pipeline.

Note 2: All piping within the perimeter of an industrial installation and beyond the isolation valves detailed above, is covered by the PED; this includes

any piping between individual operating units or plants, or storage facilities.

Accepted by WPG on: **20 Apr 2005**

Accepted by Working Group "pressure": **28 Jun 2005**

**Remarks:**

#### Guideline 1/30

[Original version as adopted on: *27 Jan 2003*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 2.1](#)

**Question:** Is it permissible to affix both the CE marking for the PED and the П-mark for the TPED on an item of pressure equipment? (**GL revised 27-Jan-2003**)

**Answer:** Yes

This double marking proves that the item of pressure equipment complies with both directives, and can be used in both contexts without further assessment.

A similar item bearing only the p mark could also be used for pressure purposes outside the scope of ADR/RID but consideration would need to be given to possible national regulations, or to PED if included in a PED assembly.

Hence, if a manufacturer intends a product to be used in both contexts and designs and manufactures it accordingly so that it complies with both applicable Directives, it shall bear both markings , to the extent foreseen by each Directive (e.g. no CE marking for SEP equipment (Article 3 paragraph 3), and no П-marking for certain accessories).

If the manufacturer of the product only foresees it to be used in the scope of one of the Directives, only one Directive applies and one marking (as far as applicable) shall be affixed (see also guideline [1/33](#)).

See also guidelines [1/14](#) and [1/33](#).

**Reason:**

While in principle, Article 1.3.19 of the PED excludes equipment covered by ADR/RID, it is not always possible for the manufacturer to know whether or not a particular item of equipment he manufactures will during its use come into the scope of these International Transport Agreements. This is in particular true for accessories, which may well be used for both purposes with no technical alterations. In such a case, it would only be possible after

the user has taken the product into service, to know, which of the two Directives does not apply to the product. Until then, both Directives shall be considered to be applicable. Such double marking would not violate the provisions of Article 16 of the PED, as, up to the moment the product was placed on the market, it was not excluded from the scope of the PED. When at a later point in time the product is de facto used in the context of a transportation of dangerous goods, the fact that it bears the CE marking is insignificant.

Accepted by WPG on: **06 Nov 2002**

Accepted by Working Group "pressure": **27 Jan 2003**

Remarks:

#### Guideline 1/31

[Original version as adopted on: *03 Apr 2001*]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 3.1](#) , [Article 1 Paragraph 3.10](#)

**Question:** Are NGV (Natural Gas Vehicles) filling stations covered by the PED?

**Answer:** NGV filling stations are covered by PED. They are not excluded by Article. 1 § 3.1 as annexed equipment designed specifically for pipelines.

However, compressors are considered machinery as specified under Article. 1 § 3.10 and thus may be excluded from PED (see guideline [1/11](#)).

Accepted by WPG on: **28 Nov 2000**

Accepted by Working Group "pressure": **03 Apr 2001**

Remarks:

#### Guideline 1/32

[Original version as adopted on: *27 Jan 2003*]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 3.1](#) , [Article 1 Paragraph 3.20](#)

**Question:** Are substations for district heating pipelines to be considered as "assemblies" in the Pressure Equipment Directive (PED) ?

**Answer:**  
Yes

These substations are located after the last isolation device, normally within the confines of the building or industrial installation, and thus are not covered by exclusion 3.1 of Article 1.

**Note:**

See also guideline [3/2](#) when the items of the substation are joined under the responsibility of the user.

See also guideline [3/8](#) for the definition of an assembly.

Accepted by WPG on: **06 Nov 2002**

Accepted by Working Group "pressure": **27 Jan 2003**

**Remarks:**

### Guideline 1/33

[Original version as adopted on: *27 Jan 2003*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 3.19](#)

**Question:** Can receptacles (in the meaning of Article 2 of Transportable Pressure Equipment Directive) that are « pi » marked be used as static pressure equipment without being CE marked? (**GL revised 27-Jan-2003**)

**Answer:** Yes, provided the « pi » marked receptacle has been placed on the market and used as transportable pressure equipment, it can then be used permanently as static pressure equipment without being CE marked. However, it may be subject to national regulation for this use, dealing with conditions of use, installation and periodic inspection.

**Reason:** Article 6.4 of TPED lays down that " Member States may establish national requirements for the storage or use of transportable pressure equipment, but not for transportable pressure equipment itself.... ".

**Note 1:** The term .static pressure equipment. has to be understood as .pressure equipment under the scope of Pressure Equipment Directive., even though these receptacles fall under exclusion 3.19 of Article 1 of PED. ".

**Note 2:** See guideline [1/30](#) for receptacles with double CE-mark and П-mark.

Accepted by WPG on: **06 Nov 2002**

Accepted by Working Group "pressure": **27 Jan 2003**

**Remarks:**

### Guideline 1/34

[Original version as adopted on: *04 Apr 2001*]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 3.19](#) , [Article 3 Paragraph 1.1](#) , [Annex II](#)

**Question:** Is a slurry tanker that is emptied by compressed air within the scope of the Pressure Equipment Directive?

**Answer:** Yes, if the PS of the compressed air is greater than 0,5 bar. The PS of compressed air and internal volume of the tank determine the category according to the table 2 of Annex II.

**Reason:** Slurry tankers are not excluded from the scope of the PED due to Article 1 section 3.19. They are not tanks intended for carriage of dangerous goods.

**NOTE:** "Slurry tanker" is used in farms to fertilize the fields with liquid manure. It is a tank on wheels usually pulled by a tractor in the fields and from one field to another. Compressed air facilitates the emptying of the tank.

See also guideline [1/2](#).

Accepted by WPG on: **21 Feb 2001**

Accepted by Working Group "pressure": **04 Apr 2001**

**Remarks:**

### Guideline 1/35

[Original version as adopted on: *22 Feb 2002*]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 1](#) , [Article 1 Paragraph 3.19](#)

**Question:** Are propellant gas cartridges \*) for portable extinguishers in the scope of the Pressure Equipment Directive?

**Answer:** No, those cartridges are covered by ADR and consequently excluded from PED due to Article 1, paragraph 3.19.

**Note:** See guideline [1/1](#) and [2/14](#)

\*) the term used in the context of the ADR is different: non refillable and refillable propellant gas cartridges are called cylinders in the ADR. Gas cartridges defined by ADR are limited to a pressure of 13,2 bar which is exceeded by the receptacles concerned by this guideline.

----editorially reviewed on 14.03.2002

Accepted by WPG on: **15 Jan 2002**

Accepted by Working Group "pressure": **27 Feb 2002**

**Remarks:**

#### Guideline 1/36

[Original version as adopted on: *27 Dec 2002*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 3.19](#) , [Article 3 Paragraph 1.1](#) , [Annex II Table T2](#)

**Question:** Are gas cylinders, which are placed on the market to be used for fixed fire extinguishing installations, covered by the PED or the TPED?

**Answer:** As they are transported to and from the filling station and hence covered by ADR, such gas cylinders are excluded from the PED by virtue of Art. 1 paragraph 3.19.

**Note 1:** They do not fall under the exception of Art 3 paragraph 1.1. second indent, which only refers to portable extinguishers.

**Note 2:** Such cylinders are covered by the TPED.

Accepted by WPG on: **19 Dec 2001**

Accepted by Working Group "pressure": **27 Feb 2002**

**Remarks:**

#### Guideline 1/37

[Original version as adopted on: *27 Feb 2002* and modified on *03 Nov 2003*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 3.9](#)

**Question:** Are items of pressure equipment such as separators, manifolds, valves and piping placed between a subsea well template and platform for the oil and gas extraction and processing industry covered by the Pressure Equipment Directive (PED)?

**Answer:** No.



**Reason :**

The exclusion of Article 1 paragraph 3.9 applies to all the well-control equipment listed therein, plus all equipment UPSTREAM in relation to that well-control equipment.

**Note1:** In some cases, processing equipment is interposed on the seabed (e.g. separators) between the equipment listed in Article 1 paragraph 3.9 and the pipeline(s). In such cases, the processing equipment is covered by the PED.

**Note 2:** The PED in general, and Article 1 paragraph 3.9 in particular, does not distinguish between subsea and surface equipment.

**Note 3:** Specific solutions to essential safety requirements shall take account of the subsea use of this equipment, as a result of the hazard analysis.

Accepted by WPG on: **24 Jun 2003**

Accepted by Working Group "pressure": **03 Nov 2003**

**Remarks:**

### Guideline 1/38

[Original version as adopted on: *23 May 2002*]

**Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 2.1.2](#) , [Article 1 Paragraph 3.2](#) , [Annex II Table T7](#) , [Annex II Table T9](#)

**Question:** Is piping in fire extinguishing systems that use CO<sub>2</sub> or inert gases in the scope of the Pressure Equipment Directive (PED)?

**Answer:**

YES.

**Reasons:**

1) Even though extinguishing gas (such as CO<sub>2</sub> or inert gas) piping will be only momentarily pressurised during activation of the extinguishing system and such piping is open at the discharge end, it will be exposed to a pressure PS above 0,5 bar.

2) The piping of a sprinkler system is not considered to be covered by exclusion 3.2 of Article 1, as it is not a network for the supply, distribution and discharge of water.

**Note 1:** The location where the pressure PS is specified shall be such to be representative of the maximum pressure to which the piping will be exposed.

**Note 2:** Table 7 of Annex II is to be used for classification if content is CO<sub>2</sub>, or inert gas. For sprinkler systems, table 7 is to be used for "dry piping installation", and table 9 for water.

**Note 3:** The PED is limited only to pressure-related hazards. Function and performance of fire extinguishing systems are not covered by the PED.

See also guidelines [1/9](#) and [9/8](#).

Accepted by WPG on: **09 Apr 2002**

Accepted by Working Group "pressure": **23 May 2002**

**Remarks:**

### Guideline 1/39

[Original version as adopted on: *23 May 2002*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 3.6](#)

**Question:** Article 1, section 3.6 states that all "equipment classified as no higher than category I under Article 9 of this Directive and covered by one of the following Directives: [&.] are excluded from the scope of this Directive:". Does this exclusion also cover assemblies?

**Answer:** Yes.

**Reason:** While the categories are defined in Article 9 for items of pressure equipment, the same categories are applied to and used in the context of Assemblies in Article 10. The Directive clearly defines a category for each assembly in Art. 10.2.b and requires that the applicable conformity assessment modules are used as per 10.1.3.

Consequently there is no problem to determine, which assemblies are excluded from the pressure equipment directive by article 1, section 3.6.

**Note:** There is ambiguity in some language versions of the directive regarding Article 10 paragraph 2.b.

Accepted by WPG on: **14 Mar 2002**

Accepted by Working Group "pressure": **23 May 2002**

**Remarks:**

### Guideline 1/40

[Original version as adopted on: *23 May 2002* and modified on *21 Nov 2006*]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 2.1.4](#)

**Question:** What does pressure bearing housing mean in the definition of pressure accessory in Article 1 paragraph 2.1.4 ?

**Answer:** The term pressure bearing housing refers to an envelope in which fluid under pressure ( $PS > 0,5$ ) is contained or transported (volume  $V > 0$ ).

Therefore, a product whose only pressure-bearing surface is a flange or screwed fitting is not a pressure accessory but is a component of an item of pressure equipment under the Pressure Equipment Directive (PED) when used on such equipment.

Typical examples of components which are not pressure accessories : Level Switch, Flush Mounted Pressure Transmitter and Thermowell.

**Note:** This does not apply to such devices when employed in a safety function.

See also guidelines : [1/8](#), [1/22](#), [1/25](#) and [7/19](#).

Accepted by WPG on: **18 Oct 2006**

Accepted by Working Group "pressure": **23 May 2002**

**Remarks:**

#### Guideline 1/41

[Original version as adopted on: *27 Jan 2003* and modified on *18 Apr 2007*]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 3.5](#) , [Article 1 Paragraph 3.19](#)

**Question:** Is a liquefied petroleum gas (LPG) or compressed natural gas (CNG) vessel (tank) installed in an engine powered fork lift truck in the scope of the PED ?

**Answer:**

Yes, such an LPG or CNG vessel is in the scope of the PED and must be assessed according to its maximum allowable pressure and volume.

**Reason:** An engine powered fork lift truck is not a motor vehicle in the sense of Council Directive 70/156/CEE, so the exclusion of the Article 1 paragraph 3.5 does not apply.

**Note 1:** Transportable gas cylinders which can also be used for fork lift trucks are in the scope of ADR and as such are excluded from the PED, due to Article 1 paragraph 3.19.

**Note 2:** The same applies to similar machinery not covered by Directive 70/156/CEE.

Accepted by WPG on: **30 Jan 2007**

Accepted by Working Group "pressure": **27 Jan 2003**

**Remarks:**

#### Guideline 1/42

[Original version as adopted on: *27 Jan 2003*]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 2.1.2](#) , [Annex I Section 2.2.1](#)

**Question:** Is the discharge piping from a pressure safety accessory, which will be exposed to a pressure PS above 0,5 bar, in the scope of the Pressure Equipment Directive (PED) when exhausting to ambient atmosphere ?

**Answer:** Yes

**Reason:** Even though discharge piping will be only momentarily pressurised, and such piping is open at the discharge end, it fulfils the definition of piping in paragraph 2.1.2 of Article 1.

**Note 1:** A silencer installed in the discharge piping is excluded according to Article 1 paragraph 3.16.

**Note 2 :** The location where the pressure PS is specified shall be such to be representative of the maximum pressure to which the piping will be exposed.

Accepted by WPG on: **05 Nov 2002**

Accepted by Working Group "pressure": **27 Jan 2003**

**Remarks:**

#### Guideline 1/43

[Original version as adopted on: *28 Apr 2003*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 2.1.3](#) , [Annex I Section 2.10](#) , [Annex I Section 2.11](#)

**Question:** Are safety accessories as defined by the PED limited to equipment which prevents hazards due to overpressure?

**Answer:** No.  
 Safety accessories are devices designed to protect pressure equipment against exceeding the allowable limits (pressure, temperature, water level, ...).  
 The suitability of the device or combination of devices is determined on the basis of the particular characteristics of the equipment or assembly.

For example:

- a) A combination of a level gauge and a pressure relief system
- b) A combination of a low level water gauge and the burner shutdown device installed on a steam boiler, including all elements of the safety logic
- c) A safety-related system detecting the rate of a chemical reaction to avoid a run away reaction and initiating corrective action.

See also guideline [1/20](#)

Accepted by WPG on: **05 Mar 2003**

Accepted by Working Group "pressure": **28 Apr 2003**

**Remarks:**

**Guideline 1/44**

**[Original version as adopted on: 28 Apr 2003]**

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 3 Paragraph 1.1](#)

**Question:** Is breathing apparatus, such as SCBA (self-contained breathing apparatus, generally composed of a bottle, a regulator, a flexible hose and mouth or face piece) in the scope of the PED?

**Answer:**  
 Yes, breathing apparatus shall be considered as an assembly in the sense of the PED, the items of which have to be conformity assessed according to their individual design pressure and other characteristics, and the assembly shall be subjected to a global conformity assessment.

**Reason:** Breathing apparatus is personal protective equipment and, as such, covered by the PPE directive 89/686/EEC. This does however not exclude it from the scope of the PED dealing with the associated pressure risk.

See also guidelines [1/10](#), [2/16](#) and [3/8](#).

**Note :** The same reasoning applies for diving breathing apparatus.

Accepted by WPG on: **05 Mar 2003**

Accepted by Working Group "pressure": **28 Apr 2003**

**Remarks:**

#### Guideline 1/45

[Original version as adopted on: *07 Sep 2004* and modified on *15 Jun 2004*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 3.5](#)

**Question:** When does the exclusion of Article 1, paragraph 3.5 apply?

**Answer:** If the vehicle is defined in one of the directives 70/156/EEC, 74/150/EEC and 92/61/EEC and the item of pressure equipment is assessed by type approval under one of these directives or by single approval of the vehicle under national regulations, it is excluded from the PED.

If not, the PED applies.

See also guideline [1/46](#).

Accepted by WPG on: **15 May 2003**

Accepted by Working Group "pressure": **03 Nov 2003**

**Remarks:**

#### Guideline 1/46

[Original version as adopted on: *03 Nov 2003*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 3.5](#)

**Question:** Are items of pressure equipment installed on vehicles covered by the PED?

**Answer:** Article 1 paragraph 3.5 excludes from the scope of the directive "equipment intended for the functioning of vehicles defined by the following Directives

and their annexes:

- Council directive 70/156/EEC of 6 February 1970 on the approximation of the laws of the Member states relating to the type-approval of motor vehicles and their trailers ;
- Council directive 74/150/EEC of 4 March 1974 on the approximation of the laws of the Member states relating to the type-approval of wheeled agricultural or forestry tractors;
- Council directive 92/61/CEE of 30 June 1992 relating to the type-approval of two or three-wheel motor vehicles"

For example, the following items directly contributing to the functioning of the vehicles are within this exclusion: tanks such as the auxiliary tanks for braking energy systems (which may be covered by the directive 87/404/EEC on simple pressure vessels that does not contain an exclusion for equipment installed in vehicles), LPG, CNG or hydrogen tanks, those hydraulic systems contributing to the functioning of the vehicle such as shock absorbers.

An item of pressure equipment not contributing directly to the functioning of the vehicles is covered by the PED (e.g. air conditioning system, fire extinguisher, fixed LPG tanks in camping-cars for heating or cooking purposes only). For hydraulic systems see also guideline [3/13](#).

**Note :** Article 1 paragraph 3.15 excludes pressure equipment consisting of a flexible casing. Tyres and airbags (air cushions) are within this exclusion.

See also guideline [1/45](#).

Accepted by WPG on: **15 May 2003**

Accepted by Working Group "pressure": **03 Nov 2003**

**Remarks:**

#### Guideline 1/47

[Original version as adopted on: *03 Nov 2003*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 2.1.1](#) , [Article 9 Paragraph 3](#) , [Article 15 Paragraph 2](#)

**Question:** Is it correct to have a spare bundle of a shell & tube heat exchanger CE marked separately from the CE-marking of the heat exchanger ?

**Answer:**

No.

**Reasons:** A shell & tube heat exchanger is one vessel with two chambers (guideline 2/19) ; it is not permissible to have one chamber of a vessel separately CE-marked. A bundle is a component of a heat exchanger, it is not an item of pressure equipment.  
See also guidelines : [1/3](#) , [1/22](#), [4/9](#) and [7/19](#).

Accepted by WPG on: **03 Sep 2003**

Accepted by Working Group "pressure": **03 Nov 2003**

**Remarks:**

#### Guideline 1/48

[Original version as adopted on: *17 Mar 2004*]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 2.1.4](#) , [Article 1 Paragraph 3.6](#) , [Annex I Section 2.2.1](#)

**Question:** Are Flame Arresters and flash back arresters covered by the Pressure Equipment Directive (PED)?

**Answer:** Yes, when the maximum allowable pressure PS they can be exposed to is above 0,5 bar, flame arresters and flash back arresters are covered by the PED and, in general, should be considered as pressure accessories. Such flame arresters are generally also covered by ATEX directive ; in that case, they are excluded from PED if they do not exceed Category I (Article 1 paragraph 3.6).

Specific solutions to essential safety requirements shall take account of the potential explosion, as a result of the hazard analysis; the essential safety requirements from ATEX directive need also to be taken into account.

**Note 1:** In accordance with Article 1 paragraph 2.3, PS would be the maximum pressure for which the flame arrester housing is designed. PS is not necessarily the explosion pressure; in any case the explosion pressure shall be taken into account and may be considered as a load case following the hazard analysis (see Annex I section 2.2.1).

**Note 2:** In general, the flame arresters will be classified using Annex II table 6.

**Note 3:** For the definition of flame arresters, see EN 12874:2001.

Accepted by WPG on: **20 Jan 2003**

Accepted by Working Group "pressure": **17 Mar 2004**

**Remarks:**

#### Guideline 1/49



[Original version as adopted on: 17 Mar 2004]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 3.12](#)

**Question:** Are fluid power accumulators intended for the operation of high-voltage electrical equipment covered by exclusion 3.12 of article 1?

**Answer:** No, these accumulators are covered by the Pressure Equipment Directive.

**Reason:** The exclusion of article 1 paragraph 3.12 covers only the enclosures of the high-voltage electrical equipment and not the items of pressure equipment supplied with these high voltage electrical products.

See also Guideline [1/19](#).

Accepted by WPG on: 17 Dec 2003

Accepted by Working Group "pressure": 17 Mar 2004

Remarks:

#### Guideline 1/50

[Original version as adopted on: 17 Mar 2004]

Pressure equipment directive 97/23/EC  
Commission's Working Group "Pressure"

Guideline related to: [Article 1 Paragraph 3.10](#)

**Question:** Is the flare tip at the end of piping in the scope of the Pressure Equipment Directive (PED)?

**Answer:** The flare tip is covered by the PED, when the internal pressure exceeds 0,5 bar, in which case it is a pressure accessory.

**Note 1:** A flare (or flare system) can be considered as two parts: the lower part, which essentially comprises discharge piping and the upper part, at the extremity of the piping (usually joined by a flanged connection), which is the flare tip, where the flame is ignited. In some designs a device is installed as part of the flare tip to regulate flow.

**Note 2:** The discharge piping is covered by the PED (see guideline [1/42](#)).

Accepted by WPG on: 24 Feb 2004

Accepted by Working Group "pressure": 17 Mar 2004

Remarks:

### Guideline 1/51

[Original version as adopted on: 07 Sep 2004]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 3.12](#)

**Question:** What is meant by high-voltage in the context of Article 1 paragraph 3.12 ?

**Answer:** High voltage means that the highest voltage in normal conditions, either be-tween the two connectors or between one connector and the ground, exceeds the following values:  
 - for alternating current : 1000 V;  
 - for direct current : 1500 V.

Accepted by WPG on: **16 Apr 2004**

Accepted by Working Group "pressure": **07 Sep 2004**

**Remarks:** The Low voltage directive 73/23/EEC and its amendment 93/68/EEC say: "Ar-ticle 1 For the purposes of this Directive "electrical equipment" means any equipment designed for use with a voltage rating of between 50 and 1 000 V for alternating current and between 75 and 1 500 V for direct current."

### Guideline 1/52

[Original version as adopted on: ]

**Pressure equipment directive 97/23/EC**  
**Commission's Working Group "Pressure"**

**Guideline related to:** [Article 1 Paragraph 3.6](#) , [Article 3 Paragraph 1.2](#) , [Annex II Table T2](#)

**Question:** Article 3 paragraph 1.2 states that all pressure cookers shall satisfy essential requirements set out in Annex I ; Article 1 paragraph 3.6 excludes from the scope of the Directive equipment classified as no higher than category I and covered by Directive 73/23/EEC (as replaced by Directive 2006/95/EC). How to apply these two Articles to electrical pressure cookers?

**Answer:** All electrical pressure cookers with a maximum allowable pressure above 0,5 bar are also in the scope of the Directive 97/23/EC, irrespective of their product pressure-volume.

**Reason:** The pressure hazard of pressure cookers could be high if the design is not adequate. It is the reason why their design must be subject to a conformity assessment of at least one of the category III modules. This applies to electrical pressure cookers as well as externally fired pressure cookers. The sixth recital of the Directive explains that the exclusion laid down in Article 1 paragraph 3.6 is intended for equipment where the hazard due to pressure remains small.

Accepted by WPG on: **22 Nov 2006**

Accepted by Working Group "pressure": **18 Apr 2007**

**Remarks:**