



# **Screening exercise: Pressure Equipment Sector**

## **EU-Serbia Screening Exercise**

**18 June 2014  
Brussels**

# Structure of the Presentation

- Three Directives: PED / SPVD / ADD
- Scope
- Exclusions
- Recommendations

# PED: Pressure Equipment Directive

## 23/97/EC

- **Objective: Ensures free movement of stationary pressure equipment in EEA while guaranteeing a high level of safety**
  - harmonises the previously fragmented European Pressure Equipment market
- PED basics:
  - Defines scope: stationary pressure equipment with Maximum allowable pressure  $PS > 0,5$  bar but also exclusions
  - Classifies equipment in categories according increasing hazard levels
  - Defines Essential safety requirements (ESR),
  - Defines Conformity Assessment Procedures (modules)
  - Provides for CE Marking / declaration of conformity

# PED: Types of Stationary Pressure Equipment

- Main types:
  - Vessel : housing for containment of pressurised fluids
  - Piping : pipe or system of pipes mainly for transport of fluids - includes hoses, expansion joints, fittings
  - Safety accessory: protection against exceeding allowable limits
  - Pressure accessory: operational function e.g. valves, fittings
- Assemblies
  - several pieces of pressure equipment, provided the result is integrated, the result is functional, they are a whole, they are assembled by one manufacturer)
- Very heterogeneous sector: from small to very large equipment
  - mostly industrial, few consumer products
  - Typical applications: chemical, petrochemical plants, power stations, machinery, paper industry, food industry etc...
  - Examples: storage vessels, piping, heat exchangers, boilers, fire extinguishers and pressure cookers, ...

# PED: Exclusions

- Non-exhaustive lists: (see article I paragraph 3)
  - **Pipelines,**
  - **equipment intended for the functioning of vehicles**
  - **equipment not classified higher than category I under PED covered by other legislative (e.g. MD, ATEX, GAD, ...)**
  - **Transportable Pressure equipment (TPED),**
  - **Military equipment**
  - **Etc ...**

# PED: Essential Safety Requirements (Annex I)

- General obligations for manufacturer
  - **to carry out hazard analysis incl. reasonably foreseeable misuse**
  - **to establish technical documentation file**
- Design and calculation
- Manufacturing
- Materials
- Specific requirements / Specific quantitative requirements

# PED: Classification of equipment - criteria

- Classification of content: two fluid groups (article 9)
  - **Group 1: Positive list of 7 dangerous fluid types as defined by Directive 67/548/EEC (DSD)**
  - **Group 2: Other fluids**
- State of content
  - **gaseous**
  - **liquid**
- Total energetic content
  - **PS·V (maximum allowable pressure x volume)**
  - **PS·DN (maximum allowable pressure x nominal size)**
- **RESULT:** four categories (I to IV- increasing level of hazard) + article 3(3) (Sound Engineering Practice)

# PED: Conformity assessment

- Categories established depending on Hazard Level
  - **Category I : Manufacturer autodeclaration**
  - **Category II, III, IV : Notified Body involvement**
- Full set of Modules available
- Simplified assessment when using Harmonised Standards (presumption of conformity)

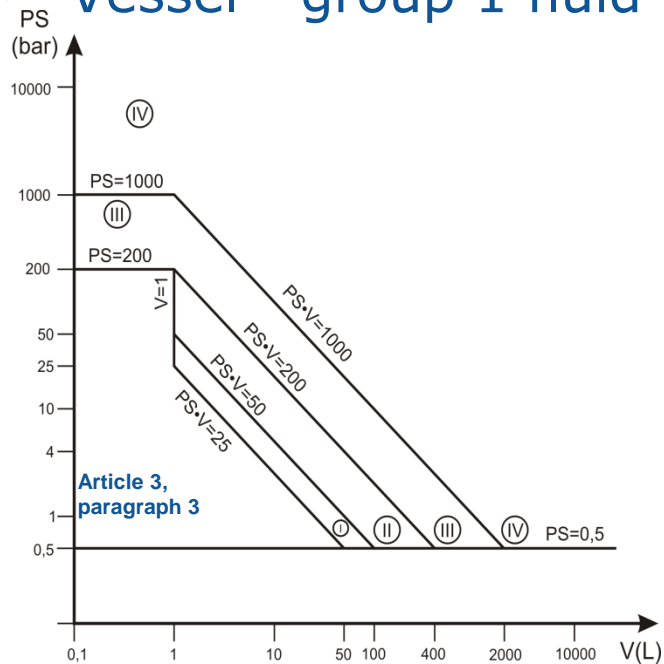


## PED: Determination of applicable category

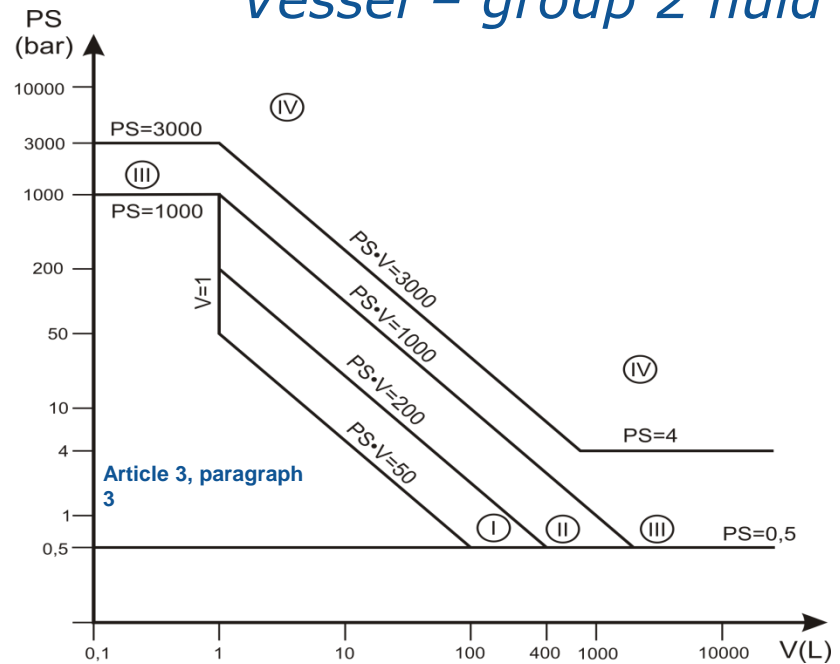
	<i>Classification</i>	<i>Group 1 fluid</i>	<i>Group 2 fluid</i>
<i>vessels</i>	<i>gaseous</i>	<i>Table 1</i>	<i>Table 2</i>
	<i>liquid</i>	<i>Table 3</i>	<i>Table 4</i>
<i>piping</i>	<i>gaseous</i>	<i>Table 6</i>	<i>Table 7</i>
	<i>liquid</i>	<i>Table 8</i>	<i>Table 9</i>
<i>Pressure accessories</i>	<i>volume</i>	<i>according to table 1-4</i>	
	<i>DN</i>	<i>according to table 6-9</i>	
<i>Safety accessories</i>	<i>general</i>	<i>Category IV</i>	
	<i>specific</i>	<i>Category of respective equipment</i>	
<i>Assemblies</i>	<i>According to highest element (except safety acc.)</i>		

# PED: Conformity assessment tables

- Vessel - group 1 fluid



## *Vessel – group 2 fluid*



# PED: Hazard Categories for pressure equipment

<i>Category</i>	<i>ESRs</i>	<i>CA Modules</i>	<i>CE mark</i>
<i>I</i>	<i>apply</i>	<i>A</i>	<i>Yes</i>
<i>II</i>	<i>apply</i>	<i>A1, D1, E1</i>	<i>Yes</i>
<i>III</i>	<i>apply</i>	<i>B1 + D, B + E, H</i> <i>B1 + F, B + C1</i>	<i>Yes</i>
<i>IV</i>	<i>apply</i>	<i>B + D, H1</i> <i>B + F, G</i>	<i>Yes</i>
<i>(3.3)</i>	<i>SEP</i>	<i>None</i>	<i>NO</i>

# PED: Recent Developments

- PED has been aligned to the CLP Regulation and the NLF (New Legislative Framework).
- The legislative process was completed in May 2014 and the publication in the Official Journal of the new PED is pending (expected still in June)

Note: CLP: Regulation on Classification, Labelling and Packaging of substances and mixtures

# Recommendations

- Keep the structure: scope, exclusions, Annexes (i.e. ESRs)
- Use the recently adopted version of the PED
- Introduce transitional articles (CABs/NBs, marking, etc.)
- Provide us a version of your transposition with the text in plain English
- Provide us with Tables of correspondence
- Explanations and clarifications

# **SPVD: Simple Pressure Vessels Directive (2009/105/EC)**

- Currently still Directive 2009/105/EC on the harmonisation of the laws of the Member States relating to simple pressure vessels  
(published in OJ-L 264-08/10/2009)
- New SPVD: has been aligned to the NLF Package, adopted in 2014 . New reference: 2014/29/EU  
(published in OJ L 96/45 of 29/3/2014)
- Important to use the SPVD as the structure has changed substantially (conformity assessment modules)

# SPVD: Scope and Exclusions

- Scope: This Directive applies to simple pressure vessels manufactured in series, gauge pressure higher than 0,5 bar, containing air or nitrogen and of a "simple" design
- Typical examples: compressor vessels, vessels used in brakes of trucks and trains, compressed air vessels in pneumatic applications
- Pay attention to exclusions!

# Recommendations

- Keep the structure: scope, exclusions, exceptions, Annexes
- Introduce transitional articles
- Provide us a version of your transposition with the text in plain English
- Provide us with Tables of correspondence
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# ADD: Aerosol Dispensers Directive (75/324/EEC) and its amendments

- **Legislation in force**

ADD 75/324/EEC as amended by:

- Commission Directive 94/1/EC;
- Commission Directive 2008/47/EC
- Commission Directive 2013/10/EC

Consolidated version: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02013L0010-20130409&qid=1400063982288>

- **Old Approach Directive:** Includes detailed technical requirements some of these (testing) are derived from UN level

# **ADD: Objective and product scope**

- Safety aspects related mainly to the pressure hazard of the aerosol dispensers (but also flammability);
- Consumer and professional products
  - Cosmetic and household products are the main aerosol categories and represent three quarters of the European production;

## **ADD: Aerosol Dispenser Definition**

- Non-reusable container made of metal, glass or plastic and
- containing a gas compressed, liquefied or dissolved under pressure,
- with or without a liquid, paste or powder, and fitted with a release device
- allowing the contents to be ejected as solid or liquid particles in suspension in a gas, as a foam, paste or powder or in a liquid state;
- With a capacity more than 50 ml

## **ADD: Labelling**

A few examples of labelling elements (non exhaustive list):

- the name and address or trade mark of the person responsible for marketing the aerosol dispenser
- the symbol '3' (inverted epsilon) certifying conformity with the requirements of this Directive,
- Hazard statements (from CLP Regulation)

# Recommendations

- Keep the structure
- Use the **consolidated version** of the Directive
- Introduce transitional articles
- Provide us a version of your transposition with the text in plain English
- Provide us with Tables of correspondence
- Explanations and clarifications

# Contact details

European Commission -DG Enterprise and Industry  
Unit F5- Engineering industries

Link: [http://ec.europa.eu/enterprise/sectors/pressure-and-gas/pressure-equipment/index\\_en.htm](http://ec.europa.eu/enterprise/sectors/pressure-and-gas/pressure-equipment/index_en.htm)