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Guidance

PESR 2016 and PSSR 2000 – Frequently asked questions and answers

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SITUATION

This Guidance is intended to address the most frequently asked questions raised within the in-service inspection industry with respect to the Pressure Equipment (Safety) Regulations 2016 and application of in-service examinations.

The questions are grouped by subject matter.

Pressure Equipment Directive 014/68/EU (PED) as implemented in the UK by the Pressure Equipment (Safety) Regulations (PESR) 2016 SI No. 1105

1. Can second-hand plant not built in accordance with PED be imported into the EU for example, Pressure Vessels designed to ASME requirements, locomotive boilers from overseas?

If an item is being imported into the EU it is being supplied for the first time it must meet the requirements of PED and, where appropriate, the relevant Essential Safety Requirements (ESRs). For Hazard Category II and above a notified body must be involved as part of the conformity assessment process.

In practice the requirements for material certification, welding qualifications and NDT personnel approvals render retrospective conformity assessment to PED impractical in most cases.

2. What is meant by "under the responsibility of the user" and what requirements does the user have to follow?

The PED requirements with respect to global conformity assessment of assemblies does not apply when the items of pressure equipment making up the assembly are joined together under the responsibility of the user. The user may appoint sub contractors to assist him in the assembly process but the work would still need to be performed under the direction/management of the user for this exception to apply. In these circumstances the user is required to apply relevant parts of PSSR (Regulation 4 - Design and construction, Regulation 5 - Provision of information and marking, and Regulation 6 - Installation). Although the essential safety requirements of the PED do not apply in this situation it is considered good practice to apply the relevant requirements.

Note 1: The requirements relating to "under the responsibility of the user" do not apply when the user is joining components to form an item of pressure equipment. An example of this would be joining pipes and pipe fittings to form a piping system (see question 4).

Note 2: A typical example of what constitutes an assembly is shown Picture 1 and Diagram 1

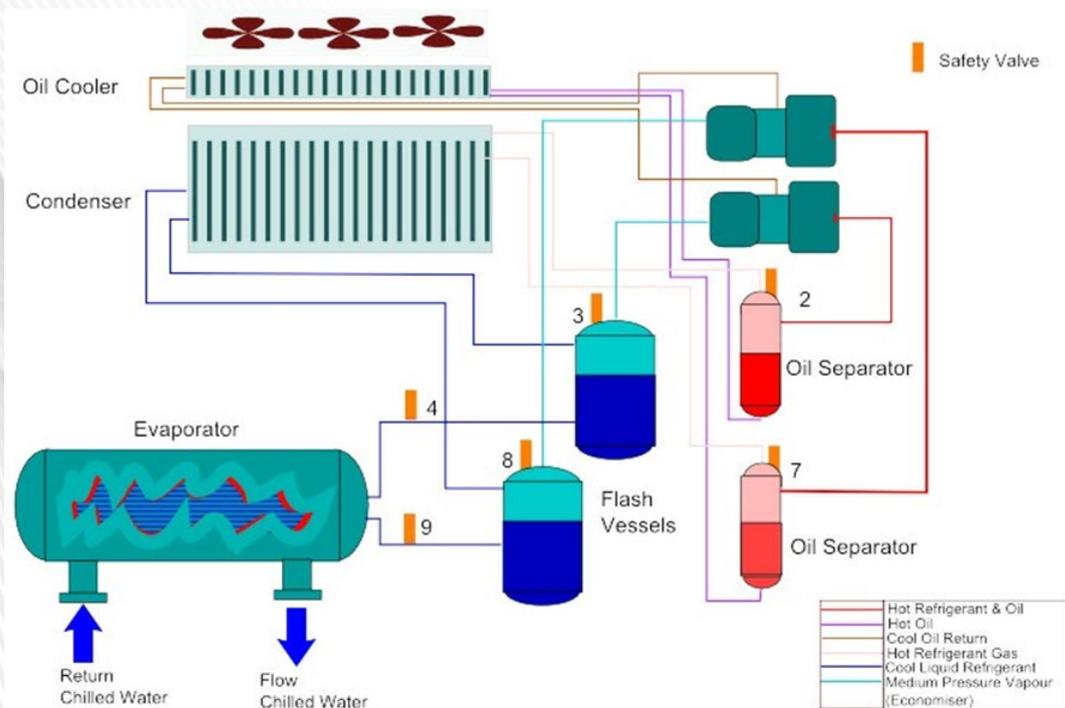


Diagram 1 – Packaged refrigeration system example with a number of typical PE

3. What action is necessary if an item of pressure equipment is to be inspected in accordance with the PSSR and there is insufficient evidence to confirm that the equipment complies with PED or Simple Pressure Vessel Directive (SPVD) or does not carry CE marking as appropriate?

Establish whether the equipment falls within the scope of PED and if it does determine whether it falls within SEP or requires conformity assessment and CE marking.

Equipment that has been manufactured in accordance with Sound Engineering Practice (SEP) will not carry any CE marking. Although excepted from the design and construction provisions of PSSR Regs 4 and 5(1) the supplier/manufacturer must still provide such information so as to enable the safe operating limits to be established. The competent person should confirm fitness for purpose by the examination and recognised engineering practice.

Equipment identified as requiring conformity assessment and where there is insufficient evidence to confirm that the equipment complies with the PED needs special consideration. Where possible, the competent person carrying out examinations must ensure that the equipment is safe by means of an assessment of design and manufacture and by examination to confirm fitness for purpose. If this cannot be established then the equipment cannot be certified for service.

Where there is sufficient information to confirm fitness for service the equipment can be included in a PSSR inspection report with a suggested wording:

‘Although the examination has confirmed that this equipment is suitable for service conformity with the PED could not be established. You should obtain the necessary information to confirm compliance’

Note: Where individual items of pressure equipment are part of an assembly that has been subject to global conformity assessment they may not have individual CE marking.

4. How should piping joining together items of equipment on site be treated?

Where the piping joining together items of equipment falls within one of the hazard categories defined in the PED then the manufacturer of the piping is required to carry out conformity assessment. In order that the pipes being used in the joining process can be considered as piping it will have already undergone all the appropriate manufacturing operations such as bending, forming, flanging and heat treatment by the organisation who supplied the piping (ie the manufacturer). In this case no further action with respect to the piping is required by the organisation responsible for joining together items of equipment on site (the installer). By way of an example a system of pipes incorporating screwed or flanged ends can be regarded as having all manufacturing operations complete and can therefore be considered as piping.

If the installer joining together items of equipment is joining together pipes, pipe fittings, hoses etc then he is creating an item of pressure equipment (piping). He is therefore the manufacturer and is responsible for the conformity assessment, where applicable. Further information can be found in Working Party Guideline A-09.

Note: The installer may also have responsibilities with respect to the global conformity assessment of the assembly and the conformity assessment of the piping can be incorporated into this process.

5. What is the difference between a Certificate of Conformity and a Declaration of Conformity?

A Declaration of Conformity must be produced by the manufacturer for all items of pressure equipment. A Certificate of Conformity would be issued by the Notified Body for Product or Unit Verification conformity assessment modules. Similarly, where appropriate, an EU Type Examination Certificate would be issued by the Notified Body

6. Do all pressure accessories need to bear a CE marking?

No. Pressure accessories, that is, devices with an operational function and having pressure-bearing housings, will require conformity assessment. This will be subject to the appropriate category. In some cases the operational function of pressure accessory may also need to be taken into account, such as, in the case of a valve being used as the sole means of isolation within a pressure system.

Smaller pressure accessories may fall within the scope of Sound Engineering Practice (SEP) in accordance with Annex II Clause 3. They may be classed under SEP and in such cases they are not permitted to have CE marking.

7. How would a surveyor determine whether a CE marking is applied for the PED rather than another directive, e. g. Machinery, Low Voltage, etc?

He would need to see the Declaration of Conformity.

8. Who determines whether the ‘means of examination’ are sufficient?

The manufacturer is responsible for ensuring that all necessary examinations for ensuring safety can be carried out. The Competent Person must be able to carry out a satisfactory examination.

9. Should the manufacturer’s operating instructions for pressure equipment be seen when undertaking a first inspection?

Yes. To determine if there are any limitations on use or other requirements, e.g. inspection periodicity, specified by the manufacturer. A manufacturer’s instructions are also required to accompany pressure equipment complying with SEP.

10. Where pressure equipment, originally built in accordance with the PED/PESR is subsequently modified or repaired, does it come under the scope of the PESR 2016/PED or the PSSR 2000?

Pressure equipment that 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 PED/PESR. However, modifications to an assembly being carried out on site under the responsibility of the user do not come within the scope of the PED/PESR. Repairs to pressure equipment do not come within the scope of the PED/PESR and will be covered by Regulation 13 of PSSR.

11. When the manufacturer of pressure equipment has issued user instructions stipulating internal inspection frequencies different to that of industry standard practice, does the competent person drawing up the WSE need to take this into account?

Yes, however, the competent person can apply a different periodicity to that recommended by the manufacturer subject to being able to justify such a decision. Reference should be made to SAFed publication, *PSG1 – Guidelines on Periodicity of Examinations*.

12. How should the Competent Person treat pressure equipment coming under PED Hazard Category 1 which has been exempted from the PED because another Product Directive has been applied.

Small, low pressure equipment coming under PED hazard category 1 and also built in accordance with other directives (eg small cafeteria boilers built in accordance with the Low Voltage directive) are excluded from the PED. There should nevertheless be markings or documentation which confirm Safe Operating Limits (SOL's). As this type of equipment is excluded from the PED then Regulations 4 and 5 of PSSR will apply. Competent Persons will need to make an engineering judgment as to whether there is sufficient information to confirm SOL's.

13. How should the Competent Person treat steam equipment operating at 0.5 bar or less?

Pressure Equipment operating at pressures up to 0.5 bar g fall outside the scope of PED but if the equipment contains steam it is within the scope of PSSR (eg some boiler blowdown receivers). In such cases the requirements of regulations 4 and 5 of PSSR will apply. Again judgment will need to be made as to whether there is sufficient information to confirm SOL's.

14. How should the Competent Person confirm the set pressure of the protective device to the pressure equipment marking?

The PED requires the equipment to be marked with the maximum allowable pressure (PS). Often the equipment is marked in practice with various designations including:

MAWP – Maximum Allowable Working Pressure DP – Design Pressure

WP – Working Pressure

Other than the test pressure, the Competent Person should take the pressure marked on the equipment as the PS.