

---

STATUTORY INSTRUMENTS

---

**2016 No. 1105**

**The Pressure Equipment (Safety) Regulations 2016**

**PART 1**

Preliminary

**Citation and commencement**

1. These Regulations may be cited as the Pressure Equipment (Safety) Regulations 2016 and come into force on 8th December 2016 (“the commencement date”).

**Interpretation**

2.—(1) In these Regulations—

“the 1974 Act” means the Health and Safety at Work etc Act 1974(1);

“the 1978 Order” means the Health and Safety at Work (Northern Ireland) Order 1978(2);

“the 1987 Act” means the Consumer Protection Act 1987(3);

“the 1999 Regulations” means the Pressure Equipment Regulations 1999(4);

“accreditation” has the meaning set out in point 10 of Article 2 of RAMS;

“accreditation certificate” means a certificate, issued by the United Kingdom Accreditation Service or a national accreditation body in another member State, attesting that a conformity assessment body meets the notified body requirements or the user inspectorate requirements;

“applicant” means any person making an application for a conformity assessment procedure to be carried out by a notified body;

“assembly” means several pieces of pressure equipment assembled by a manufacturer to constitute an integrated and functional whole;

“authorised representative” means a person appointed in accordance with regulation 19(1) (Manufacturer’s authorised representatives);

“CE marking” means a marking which takes the form set out in Annex II of RAMS (as amended from time to time);

“Commission” means the European Commission;

“conformity assessment” means the process demonstrating whether the essential requirements relating to pressure equipment or assemblies have been fulfilled;

“conformity assessment activities” means any activities involved in conformity assessment, including calibration, testing, certification and inspection;

“conformity assessment body” means a person that performs conformity assessment activities;

---

(1) 1974 c.37.

(2) S.I. 1978/1039 (N.I. 9).

(3) 1987 c.43.

(4) S.I. 1999/2001 as amended by S.I. 2002/1267, S.I. 2008/1597, 2012/1809, S.I. 2014/469, S.I. 2015/399.

“conformity assessment procedure” means a procedure for conformity assessment set out in Annex III to the Directive (as amended from time to time);

“the Directive” means [Directive 2014/68/EU](#) of the European Parliament and of the Council of 15th May 2014 on the harmonisation of the laws of the member States relating to the making available on the market of pressure equipment (recast)([5](#));

“designating authority” means the Secretary of State;

“distributor” means any person in the supply chain, other than the manufacturer or the importer, who makes pressure equipment or an assembly available on the market;

“district council” means a district council within the meaning of the Local Government Act (Northern Ireland) 1972([6](#));

“economic operator” means a manufacturer, an importer or a distributor;

“enforcing authority” means any person enforcing these Regulations under regulation [67](#) (enforcement);

“essential safety requirements” means the requirements set out in Schedule 2;

“EU declaration of conformity” means a declaration of conformity drawn up in accordance with regulation 48 (EU declaration of conformity);

“European approval for materials” means a technical document defining the characteristics of materials intended for repeated use in the manufacture of pressure equipment which are not covered by any harmonised standard;

“fluids” means gases, liquids and vapours in pure phase as well as mixtures thereof; fluids may contain a suspension of solids;

“fluid in Group 1” has the meaning set out in paragraph 3(1) of Schedule 3;

“fluid in Group 2” has the meaning set out in paragraph 3(2) of Schedule 3;

“harmonised standard” has the meaning set out in Article 2(1)(c) of Regulation (EU) 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation([7](#)) (as amended from time to time);

“importer” means any person who—

- (a) is established in the EU; and
- (b) places pressure equipment or an assembly from a third country on the EU market;

“make available on the market” means the supply of pressure equipment or an assembly for distribution, consumption or use on the EU market in the course of a commercial activity, whether in return for payment or free of charge, and related expressions are to be construed accordingly;

“manufacturer” means a person who—

- (c) manufactures pressure equipment or an assembly, or has such equipment or assembly designed or manufactured; and either—
- (d) markets that pressure equipment under that person’s name or trade mark; or
- (e) uses it for his own purposes;

“market surveillance authority” has the meaning set out in regulation [66](#) (designation of market surveillance authority);

“maximum allowable pressure PS” means the maximum pressure for which the equipment is designed, as specified by the manufacturer, and defined at a location specified by the

(5) OJ No L 189, 27.6.2014, p. 164, as corrected by OJ No L 157, 23.6.2015, p112.

(6) [1972 c.9](#).

(7) OJ No L 316, 14.11.2012, p12.

manufacturer, being either the connection of protective and/or limiting devices, or the top of equipment or, if not appropriate, any point specified;

“maximum/minimum allowable temperature TS” means the maximum/minimum temperatures for which the equipment is designed, as specified by the manufacturer;

“national accreditation body” has the meaning set out in point 11 of Article 2 of RAMS;

“nominal size (DN)” means a numerical designation of size which is common to all components in a piping system other than components indicated by outside diameters or by thread size; it is a convenient round number for reference purposes and is only loosely related to manufacturing dimensions; the nominal size is designated by DN followed by a number;

“notified body” means a body within the meaning of regulation 51;

“notified body requirements” means the requirements set out in Schedule 4;

“Official Journal” means the Official Journal of the European Union;

“permanent joints” means joints which cannot be disconnected except by destructive methods;

“piping” means piping components intended for the transport of fluids, when connected together for integration into a pressure system; piping includes in particular a pipe or system of pipes, tubing, fittings, expansion joints, hoses or other pressure-bearing components as appropriate; heat exchangers consisting of pipes for the purpose of cooling or heating air are to be considered as piping;

“place on the market” means make pressure equipment or an assembly available on the EU market for the first time, and related expressions are to be construed accordingly;

“pressure” means pressure relative to atmospheric pressure, i.e. gauge pressure; and as a consequence, vacuum is designated by a negative value;

“pressure accessories” means devices with an operational function and having pressure-bearing housings;

“pressure equipment” means vessels, piping, safety accessories and pressure accessories, including, where applicable, elements attached to pressurised parts such as flanges, nozzles, couplings, supports and lifting lugs;

“putting into service” means the first use of pressure equipment or an assembly by its user, and related expressions are to be construed accordingly;

“RAMS” means Regulation (EC) 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93(8);

“recall” means the taking of any measure aimed at achieving the return of pressure equipment or an assembly that has already been made available to the end-user and related expressions are to be construed accordingly;

“recognised third party organisation” is a body within the meaning set out in regulation 52;

“relevant conformity assessment procedure” means a conformity assessment procedure appropriate for the classification of the pressure equipment, as set out in regulation 42;

“relevant economic operator” means, in relation to pressure equipment or an assembly, an economic operator who has obligations in respect of that pressure equipment or assembly under these Regulations;

“safety accessories” means devices designed to protect pressure equipment against the allowable limits being exceeded, including devices for direct pressure limitation, such as safety valves, bursting disc safety devices, buckling rods, controlled safety pressure relief systems (CSPRS), and limiting devices, which either activate the means for correction or provide for

---

(8) OJ No L 218, 13.8.2008, p. 30.

shutdown or shutdown and lockout, such as pressure switches or temperature switches or fluid level switches and safety related measurement control and regulation (SRMCR) devices;

“technical documentation” has the meaning set out in regulation 10(2) (technical documentation and conformity assessment);

“technical specification” means a document that prescribes technical requirements to be fulfilled by pressure equipment or an assembly;

“user inspectorate” is a body within the meaning set out in regulation 53 (User inspectorates);

“user inspectorate requirements” means the requirements set out in Schedule 5;

“vessel” means a housing designed and built to contain fluids under pressure including its direct attachments up to the coupling point connecting it to other equipment; a vessel may be composed of more than one chamber;

“volume (V)” means the internal volume of a chamber, including the volume of nozzles to the first connection or weld and excluding the volume of permanent internal parts;

“weights and measures authority” means a local weights and measures authority within the meaning of section 69 of the Weights and Measures Act 1985(9);

“withdrawal”, when used in relation to pressure equipment or an assembly, means the taking of any measure aimed at preventing pressure equipment or an assembly in the supply chain from being made available on the market, and related expressions must be construed accordingly.

(2) In these Regulations, a reference to pressure equipment being “in conformity with Part 2” means that—

- (a) pressure equipment is in conformity with the essential safety requirements; and
- (b) each relevant economic operator has complied, or is complying, with the obligations imposed on them under Part 2 of these Regulations which must be satisfied at or before the time at which they made the pressure equipment or assembly available on the market.

(3) In regulations 16 and 26, “risk” means a risk which could arise from lawful and readily predictable human behaviour.

(4) In the other provisions of these Regulations (except Schedule 2), “risk” means a risk—

- (a) which could arise from lawful and readily predictable human behaviour; and
- (b) which may result in harm to any of the following interests—
  - (i) the health and safety of persons;
  - (ii) domestic animals; or
  - (iii) property.

(5) In these Regulations, a reference to a member State is to be read as a reference to an EEA State and references to the EU are to be read as references to the European Economic Area.

(6) In these Regulations, the definition of a manufacturer does not include a private person who manufactures pressure equipment or an assembly on an occasional basis for their own use in a non-commercial context.

### **Pressure equipment and assemblies**

3.—(1) Subject to paragraph (2) and regulation 4, these Regulations apply to pressure equipment and assemblies with a maximum allowable pressure PS greater than 0.5 bar.

(9) 1985 c.72; section 69 was amended by the Statute Law (Repeals) Act 1989 (c.43), Schedule 1, paragraph 4, the Local Government etc. (Scotland) Act 1994 (c.39), Schedule 13, paragraph 144 and the Local Government (Wales) Act 1994 (c.19), Schedule 16, paragraph 75.

(2) These Regulations apply to pressure equipment and assemblies placed on the market on or after the commencement date.

#### **Excluded pressure equipment and assemblies**

4.—(1) These Regulations do not apply to the items listed in Schedule 1.

(2) These Regulations do not apply to the assembly of pressure equipment on the site of and under the responsibility of a user who is not the manufacturer.

#### **Exception for trade fairs, exhibitions and demonstrations**

5. Nothing in these Regulations prevents the showing and use of pressure equipment and assemblies, which is not in conformity with Part 2, at a trade fair, exhibition or demonstration for the marketing of pressure equipment, provided that a visible sign clearly indicates—

- (a) that the pressure equipment or assembly is not in conformity with Part 2; and
- (b) that the pressure equipment or assembly must not be made available on the market or put into service until brought into conformity.

#### **Pressure equipment and assemblies subject to essential safety requirements**

6. The following pressure equipment must satisfy the essential safety requirements set out in Schedule 2—

- (a) vessels, except those referred to in subparagraph (b), for—
  - (i) gases, liquefied gases, gases dissolved under pressure, vapours and also those liquids whose vapour pressure at the maximum allowable temperature is greater than 0.5 bar above normal atmospheric pressure (1013 mbar) within the following limits—
    - (aa) for fluids in Group 1 with a volume greater than 1 L and a product of PS and V greater than 25 bar·L, or with a pressure PS greater than 200 bar;
    - (bb) for fluids in Group 2, with a volume greater than 1 L and a product of PS and V greater than 50 bar·L or with a pressure PS greater than 1000 bar, and all portable extinguishers and bottles for breathing apparatus;
  - (ii) liquids having a vapour pressure at the maximum allowable temperature of not more than 0.5 bar above normal atmospheric pressure (1013 mbar) within the following limits—
    - (aa) for fluids in Group 1 with a volume greater than 1 L and a product of PS and V greater than 200 bar·L, or with a pressure PS greater than 500 bar;
    - (bb) for fluids in Group 2 with a pressure PS greater than 10 bar and a product of PS and V greater than 10 000 bar·L, or with a pressure PS greater than 1000 bar;
- (b) fired or otherwise heated pressure equipment with the risk of overheating intended for generation of steam or super-heated water at temperatures higher than 110°C having a volume greater than 2 L, and all pressure cookers;
- (c) piping intended for—
  - (i) gases, liquefied gases, gases dissolved under pressure, vapours and those liquids whose vapour pressure at the maximum allowable temperature is greater than 0.5 bar above normal atmospheric pressure (1013 mbar) within the following limits—
    - (aa) for fluids in Group 1 with a DN greater than 25;

- (bb) for fluids in Group 2 with a DN greater than 32 and a product of PS and DN greater than 1000 bar;
- (ii) liquids having a vapour pressure at the maximum allowable temperature of not more than 0.5 bar above normal atmospheric pressure (1013 mbar) within the following limits—
  - (aa) for fluids in Group 1 with a DN greater than 25 and a product of PS and DN greater than 2000 bar;
  - (bb) for fluids in Group 2 with a PS greater than 10 bar, a DN greater than 200 and a product of PS and DN greater than 5000 bar;
- (d) safety and pressure accessories intended for equipment covered by (a) to (c) above including where such equipment is incorporated into an assembly.

7.—(1) The following assemblies which include at least one item of pressure equipment covered by regulation 6 must satisfy the essential safety requirements set out in Schedule 2—

- (a) assemblies intended for generating steam or superheated water at a temperature higher than 110 °C comprising at least one item of fired or otherwise heated pressure equipment presenting a risk of overheating;
- (b) assemblies other than those referred to in subparagraph (a), if the manufacturer intends them to be made available on the market and put into service as assemblies.

(2) By way of derogation from subparagraph (1)(a) above, assemblies intended for generating warm water at temperatures not greater than 110°C which are manually fed with solid fuels and have a PS·V greater than 50 bar·L must comply with only those essential safety requirements referred to in paragraphs 14, 15, 30, 33(2)(a) and 33(2)(d) of Schedule 2.

### **Requirement for pressure equipment and assemblies to comply with sound engineering practice**

8.—(1) This regulation applies to pressure equipment and assemblies to which these Regulations apply and which are below or equal to the limits set out in regulations 6(a) to (c) or regulation 7, as applicable.

- (2) Pressure equipment and assemblies to which this regulation applies must be—
  - (a) designed and manufactured in accordance with the sound engineering practice of a Member State in order to ensure safe use; and
  - (b) accompanied by adequate instructions for use.

(3) Pressure equipment or assemblies to which this regulation applies must not bear the CE marking referred to in Regulation 49 unless required to do so by other applicable EU legislation.

(4) In this regulation, “safe” means that the pressure equipment or assembly, when properly installed and maintained and used for its intended purpose, is not liable to endanger the health or safety of persons and, where applicable, domestic animals or property.