

SCHEDULE 2

Essential Safety Requirements

PART 4

MATERIALS

31.—(1) Materials used for the manufacture of pressure equipment must be suitable for such application during the scheduled lifetime unless replacement is foreseen.

(2) Welding consumables and other joining materials need only comply with the relevant requirements of subparagraphs (3), (4)(a) and (5), in an appropriate way, both individually and in a joined structure.

(3) Materials for pressurised parts must—

(a) have appropriate properties for all operating conditions which are reasonably foreseeable and for all test conditions, and in particular—

(i) they must be sufficiently ductile and tough;

(ii) where appropriate, the characteristics of the materials must comply with the requirements of paragraph 41;

(iii) due care must be exercised in particular in selecting materials in order to prevent brittle-type fracture where necessary;

(iv) where for specific reasons brittle material has to be used, appropriate measures must be taken;

(b) be sufficiently chemically resistant to the fluid contained in the pressure equipment, and in particular the chemical and physical properties necessary for operational safety must not be significantly affected within the scheduled lifetime of the equipment;

(c) not be significantly affected by ageing;

(d) be suitable for the intended processing procedures;

(e) be selected in order to avoid significant undesirable effects when the various materials are put together.

(4) The pressure equipment manufacturer must—

(a) define in an appropriate manner the values necessary for the design calculations referred to in paragraph 5 and the essential characteristics of the materials and their treatment referred to in subparagraph (3);

(b) provide in the technical documentation elements relating to compliance with the materials specifications relating to materials contained in these Regulations in one of the following forms—

(i) by using materials which comply with [^{F1}designated] standards;

^{F2}(ii)

(iii) by a particular material appraisal.

(5) For pressure equipment in categories III and IV, a specific assessment of the particular material appraisal must be performed by the [^{F3}approved] body in charge of conformity assessment procedures for the pressure equipment.

Changes to legislation: There are currently no known outstanding effects for the The Pressure Equipment (Safety) Regulations 2016, PART 4. (See end of Document for details)

(6) The equipment manufacturer must take appropriate measures to ensure that the material used conforms with the required specification, and in particular, documentation prepared by the material manufacturer affirming compliance with a specification must be obtained for all materials.

(7) For the main pressure-bearing parts of equipment in categories II, III and IV, the documentation referred to in sub-paragraph (6) must take the form of a certificate of specific product control.

(8) Where a material manufacturer has an appropriate quality-assurance system, certified by a competent body established [^{F4}in the United Kingdom] and having undergone a specific assessment for materials, certificates issued by the manufacturer are presumed to certify conformity with the relevant requirements of this paragraph.

Changes to legislation:

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