

Code of Practice for the
approval of material
manufacturers
under the provisions
of the UK Pressure
Equipment Safety
Regulations.

Revision: 01



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Foreword

This document has been prepared by a working group drawn from members of the UK Pressure Equipment Conformity Assessment Bodies community.

Paragraph 31 (8) of Schedule 2 to the Pressure Equipment (Safety) Regulations 2016 as they apply to Great Britain stipulates that for pressure equipment in categories II, III and IV, where a material manufacturer has an appropriate quality assurance system, certified by a competent body established 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.

This Code of Practice sets out how a UK Approved Body (AB) or UK Competent Body duly appointed under the Pressure Equipment (Safety) Regulations 2016 as they apply to Great Britain, and/ or recognised as a UK Competent Body suitable for undertaking the specific assessment of materials, shall approve the suitability of a material manufacturer to produce materials which are suitable and compliant with the applicable requirements as they exist at the time.

The purpose of applying this approach is to reduce any unfavorable burdens on manufacturers placing pressure equipment on the Great Britain market, and to recognise multilateral agreements and international accreditations relevant to the subject.

Note! The content of the Pressure Equipment Safety Regulations and any applicable "Designated Standards" take precedent over the Code of Practice where contradictions or omissions exist.

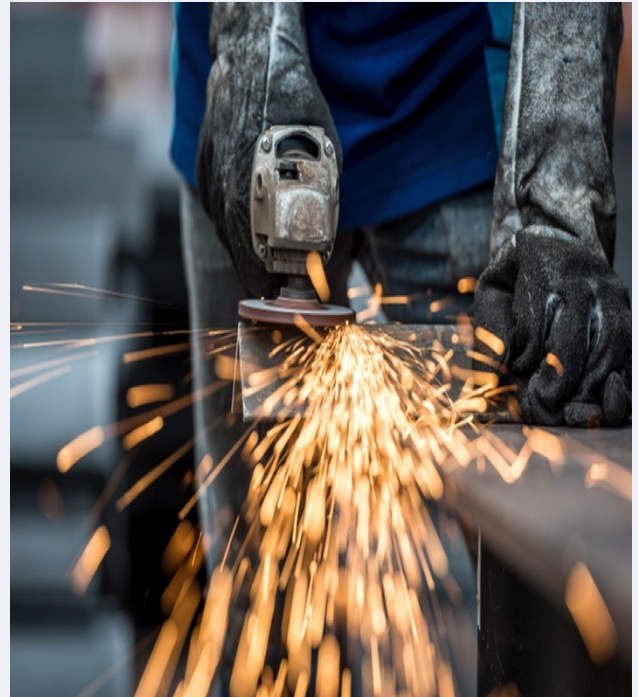
Problem

How to determine the acceptance of material certification for manufacturers placing pressure equipment on the Great Britain market; without creating divergence or excessive costs from the currently recognised process; in accordance with the Pressure Equipment (Safety) Regulations 2016 as they apply to Great Britain.

Scope

This Technical Code of Practice provides a methodology for the approval of material manufacturers under Paragraph 31 (8) of Schedule 2 to the Pressure Equipment (Safety) Regulations 2016 as they apply to Great Britain.

The EU Pressure Equipment Directive 2014/68/EU (PED) Guidelines (which until any divergence between the PESR and the EU Directive can be regarded as best practice in the UK). G-04, G-05, G-06, G-07, G-10 and G16 refer, the purpose of which is to ensure a consistent approach and a high level of confidence in the materials to be used. A flow diagram illustrating the methodology can be found in Annex A.



1 Terms and definitions

For the purposes of this Code of Practice, the following terms and definitions apply.

1.1 Competent Body (UK CB)

A body established in the United Kingdom recognised by the industry as competent to assess and certify a material manufacturers quality assurance system. Competence may be demonstrated via accreditation or other equivalent criteria.

1.2 International Accreditation Forum (IAF)

A signatory of the IAF Multilateral Recognition Arrangement (MLA).

The purpose of the IAF Multilateral Recognition Arrangement (MLA) is to ensure mutual recognition of accredited certification and validation/verification statements between signatories to the MLA, and subsequently acceptance of accredited certification and validation/verification statements in many markets based on one accreditation.

Accreditations granted by IAF MLA signatories are recognised worldwide, based on their equivalent accreditation programs, therefore reducing costs and adding value to businesses and consumers.

Accreditation Body Members of IAF are admitted to the MLA only after a stringent evaluation of their operations by a peer evaluation team (made up of current IAF MLA members).

1.3 Approval attestation

A documented statement or certificate, issued by an internationally recognised independent third-party organisation duly accredited against the applicable codes and standards by a national accreditation body which is a member of the International Accreditation Forum, confirming that a specified material manufacturer is approved (see 1.2).

1.4 Acceptable Certification

A process used by the UK Approved Body (UK AB) to confirm that the certification of material and or the qualification requirements for a material manufacturer have been fulfilled, according to the applicable codes and standards leading to the issuing of a certificate.

1.5 Relevant Scope

A particular section of industry or technology where specialised practices are used, requiring specific product-related knowledge, skill, equipment, and training. See Note 1

1.6 QMS Certificate

A current quality management system certificate issued by a certification body accredited for the assessment of the specific materials referenced therein, by a recognised accreditation body being a full member of the IAF or a UK CB as defined under 1.1.

1.8 Independent Verification and Validation (IV&V).

1.8.1 IV&V are independent procedures that are used together for checking that a product, service, or system meets the stated requirements and specifications and that it fulfils its intended purpose.

1.8.2 Independent Verification. The evaluation of whether or not a product, service, or system complies with a regulation, requirement, specification, or imposed condition. It is often an internal process.

1.8.3 Independent Validation. The assurance that a product, service, or system meets the needs of the customer and other identified stakeholders. It often involves acceptance and suitability with external stakeholders.

2 General

2.1 EU PED Guidelines

Whilst the PED Guidelines are not formally adopted under the regulations in Great Britain, they are accepted as being the basis of best practice by the UK Competent Authority, regulators and enforcement authorities, and as such should be applied as they apply. If a guideline is not followed, then a robust demonstration of at least an equivalent methodology shall be applied and documented, with records included in the equipment's technical documentation.

2.2 IAF Signatories

The International Accreditation Forum (IAF) is a worldwide association of accreditation bodies (currently 94) and other bodies interested in conformity assessment in the fields of management systems, products, processes, services, personnel, validation and verification and other similar programmes of conformity assessment.

The IAF Multilateral recognition Agreement(MLA) consists of a five level arrangement, with levels 2 and 3 constituting main scopes and levels 4 and 5 constituting sub-scopes. More information on the structure of the MLA can be found in [IAF PR 4: Structure of the IAF MLA and List of Endorsed Normative Documents](#), and the current status of the IAF MLA is available in [IAF MLA Status](#).

2.3 Material Certification in accordance with BS EN 10204:2004

The requirements for the certification of material used in pressure equipment manufacture intended for placing on the market in Great Britain UK should be in accordance with [PED Guideline G-05](#).

Materials for main pressure bearing parts in categories II, III and IV which do not comply with the requirements of the Quality System Route may, at the discretion and agreement of the UK AB, be retested in accordance with the original material specification. Inspection and testing shall be witnessed and assessed by a UKAB. Upon satisfactory completion the UK AB will issue a report/certificate stating that material meets the "intent of EN 10204:2004" and is acceptable for the purpose intended.

2.4 UK Approved Body Decisions

The basis for a decision by a UK AB for the acceptance and or approval of a material and or material manufacturer according to the Pressure Equipment (Safety) Regulations 2016 as they apply to Great Britain, should be based on a current valid quality management certificate, issued by an IAF accredited certification body holding a scope recognised as covering the manufacture of the specific materials; or by a UK CB as defined under 1.1 above.

2.5 Quality Management System (QMS) Certification

Specific materials mean those materials detailed in the QMS certification and which shall include as a minimum:

- Product form
- Product code(s) or standard(s)
- Product grade(s)
- Product dimensions
- Applicable exclusions

Note 1

A relevant scope can be interpreted to mean a product type (plate, pipe, forging casting etc.) as covered in the IAF QMS Accreditation Scope No.:17 - Basic metals and fabricated metal products.

Note 2

Where material codes or standards include the option of undertaking joining or repair techniques e.g., welding and or NDT the quality management certificates should make appropriate reference to those processes

Example wording

“The Procedures used for repairs including joining and or NDT have been assessed for compliance with the relevant standards”.

The certification body shall use assessment personnel competent in those processes and the reports should include appropriate assessment evidence.

3 Approval of a Material Manufacturer

3.1 - General

For the approval of a material manufacturer (MM) the following shall be applied.

3.2 - Route 1. Application directly from a material manufacturer

- The MM completes a formal application form provided by the AB or CB.
- The MM collates and submits the evidence detailed in the Audit criteria check list.
- The MM submits the data to an accredited UK AB or CB. Note! This forms the basis of a contract between the MM and the UK AB / CB.
- The UK AB reviews and assess the evidence supplied, checking compliance with the appropriate codes, standards, and PED guidelines as applicable and provides a determination of suitability.

Note! Refer also to the UK designated standards:

EN 764-4:2014 Pressure equipment - Part 4: Establishment of technical delivery conditions for metallic materials

EN 764-5:2014 Pressure equipment - Part 5: Inspection documentation of metallic materials and compliance with the material specification

EN 764-7:2002

- Where acceptable the UK AB / CB issues a certificate of suitability to the MM which is time based relating to the original QMS certification supplied and subject to ongoing surveillance/compliance.
- The UK AB / CB issues a certificate of suitability and lists this on their own publicly available website. The certificate is time dependent.
- This UK AB / CB certificate of suitability is then freely available for global industry to use without restriction or contract.

3.3- Route 2. Requirements of the PE Manufacturer (PEM)

- The PEM chooses a material manufacturer (MM) and or a material stockist (MS) to supply materials for a specific contract or product scope.
- The PEM requests the MM or the MS to provide copies of the MM QMS certification along with any other relevant supporting evidence, e.g., ADM 2000 WO certification, Operator qualifications etc. The PEM reviews the evidence supplied, checking compliance with the appropriate codes, standards, and PED guidelines.

Note! Refer also to the UK designated standards:

EN 764-4:2014 Pressure equipment - Part 4: Establishment of technical delivery conditions for metallic materials

EN 764-5:2014 Pressure equipment - Part 5: Inspection documentation of metallic materials and compliance with the material specification

EN 764-7:2002

*Pressure equipment - Part 7: Safety systems for unfired pressure equipment
EN 764-7:2002/AC:2006*

- The PEM includes the output of their review and copies of material certificate(s), QMS certificates and any other supporting information within their technical data files.
- The AB undertaking the conformity assessment process shall review the technical data and confirm if suitable for the intended application. The AB may choose to audit and accept the PEM's vendor assessment process as part of the overall process. The AB confirms this in their conformity assessment process and records the evidence of compliance in an assessment / inspection report, certificate or other suitable means.

3.4- Route 3. Material Stockists (MS)

- The MS shall collate and maintain the evidence detailed in Route 1 above and or collect the evidence detailed in the audit criteria check list.
- The MS provides the information to the PEM. The PEM has the responsibility of verifying and validating the information provided
- Material which does not have the appropriate supporting evidence may at the discretion of the purchaser and in agreement with the purchasers UK AB be subjected to additional inspection and testing by a UK AB, following the requirements detailed in 2.3 above.
- The UK AB issues a CERTIFICATE OF SUITABILITY OF MATERIAL to the MS which may be batch, contract or job specific.

- The MS can then supply the certificate of suitability as part of their material documentation / certification packs.

4 Approval attestation

It is incumbent on the UK AB / CB to ensure that all relevant records required by this code of practice, in support of the certificate of material suitability, are maintained and readily accessible during UKAS assessments and or on request from the relevant Market Surveillance and Enforcement Authority (.

5 Continuance and renewal of QMS Approval

The material manufacturers' certificate of suitability is maintained within the timeframe of the accredited certification body's QMS certificate as issued originally or the assessment timeframe agreed with a UK AB / CB.

The certificate of suitability can be renewed subject to the following:

- All the criterion for the initial approval remains fulfilled and the necessary evidence of QMS surveillance/renewal audits is supplied to the UK AB / CB
- If there are any changes to scope these must be assessed and accepted by the UK AB / CB.
- There are no outstanding findings relevant to the quality of the material being produced.

Note: The scheme/procedure operated by the UK AB / CB shall comprehensively detail the requirements for renewal in accordance with the relevant requirements of BS EN ISO 17021-1: 2012, section 7).

QMS Certificates:

Once the certificates of suitability (QMS only) are issued by the UK AB / CB, copies shall be made available on their publicly available web site.

6 Assessment Criteria

The UK AB / CB shall produce a statement of competence which clearly demonstrates the basis of their ability to assess material manufacturers. (This is not currently an accredited requirement and relies on the UK AB / CB professional expertise.

The UK AB / CB Shall establish a documented scheme or procedure for adopting this code of practice. The scheme shall detail the requirements for, issuing, maintaining renewing and the withdrawal or suspension of the certificate.

As a minimum the data listed in the audit criteria below shall be retained.

Material manufacturers current QMS certificate is relevant to the type, standard, grade, and size of materials produced. The MM has a quality assurance system of at least EN ISO 9001 type or equivalent, certified by a competent IAF member and includes reference to a specific assessment of materials with an appropriately detailed scope.

- Copies of the material manufacturers last 2 QMS surveillance reports.

- Copies of any national or international approvals held by the material manufacturer.
- Copies of any welding, welder and or NDT operator approvals held by the material manufacturer which are applicable to the products they supply e.g., fabricated fittings.
- Details and supporting documented evidence of any subcontracted activities e.g., heat treatment, testing etc.
- Details and supporting documented evidence of the logo or manufacturers marks used on the products.
- Details and any supporting documented evidence of bespoke or proprietary approvals e.g patents for new materials.

Recommendation:

- The UK AB / CB provides a statement confirming that the above checks have been completed, records are retained, and the outcome include a recommendation as follows:
- Certification is recommended
- Certification is not recommended

Legal responsibilities

- The legal responsibility for all material used in the construction of pressure equipment complying with the PESR's lies with the Pressure Equipment Manufacturer.
- The UK AB / CB responsibility is to verify and validate that there is documented supporting evidence demonstrating compliance with the applicable codes, standards and contractual requirements. Where the UK AB / CB has any doubts then additional measures are to be considered e.g., additional testing or additional on-site audits. Only when the UK AB / CB is satisfied with the traceability and suitability of a material shall it be accepted in accordance with this Code of Practice.
- The UK AB / CB shall have a formally documented process for managing compliance with GDPR.

Note! Any additional assessments, inspections and or testing of material and or manufacturers or stockists required and assessed by the AB or CB does not change or amend any of the information provided in the original material manufacturers certification or reports. It is considered supplemental testing for information only.

7 UKCA marking easement relating to certification of material manufacturers' quality assurance systems

To make it simpler for businesses to adopt UKCA marking, the government has brought forward the following measure which relates to certification of material manufacturers' quality assurance systems.

Reducing re-certification/ re-testing costs:

The government intends to introduce legislation which will allow completed conformity

assessment activities carried out under EU requirements (including existing testing, certification, and contractual arrangements relating to the quality control or auditing of existing certificates) undertaken by non-UK conformity assessment bodies (CABs) (accredited by their national accreditation body) for CE certification before 1 January 2023 to be used by manufacturers to declare existing product types as compliant with UKCA.

Products must still bear UKCA marking and will need to undergo conformity assessment with a UK Approved Body at the expiry of the certificate or after 5 years (31 December 2027), whichever is sooner.

This will allow manufacturers to apply the UKCA mark without the need for any UK-recognised CAB involvement and continue to place their goods on the market, on the basis of their existing CE type examination completed before 31 December 2022, for the lifetime of the certificate issued, or until 31 December 2027 (whichever is sooner)

This means that where a material manufacturer has a current and valid quality assurance system certificate issued by a competent body registered in the EU (e.g. a certification body recognised by an EU member state for the applicable scope) then that certificate will continue to be acceptable for UKCA marking until it expires, has a change of scope, revised schedule (technical additions or removals) or 2027, whichever is the sooner.

Any stock materials imported into the UK and placed on the market will continue to be accepted if at the time of placing the material on the UK market the material manufacturer held a valid quality assurance certificate issued by a competent body registered in the EU. Documented evidence of the date of placing the material on the market and the quality assurance certificate is required.

Any materials not meeting the requirements detailed above may still be accepted for the UK market if they are subjected to additional inspection by a UK Approved Body holding an appropriate accredited scope. The additional inspection may include:

- Documentation review
- Additional mechanical testing
- Additional chemical testing
- Positive material identification
- Non-destructive testing
- Visual and dimensional checks
- Markings

Following completion of the agreed testing the UK AB will issue a Certificate of Specific Material Control detailing all activities performed and results obtained. This certificate shall not replace the material manufacturers certificate, it is a supplement to it.

Note! These certificates are considered to meet the intent of BS EN 10204:2004 Type 3.2.

8 Certificate of Suitability Template

The recommended wording for the certificate of suitability is provided in the template below:

Company logo here

Certificate Number: XXXX

CERTIFICATE OF SUITABILITY OF MATERIAL

In accordance with the requirements of the
Pressure Equipment Safety Regulations 2016 as they apply to Great Britain.
SI 2016 No. 1105

Applicant: *Material Stockist name*

COMPANYNAMEXXXX, an approved body / competent body as described within the Pressure Equipment Safety Regulations 2016, as they apply to Great Britain, has verified, and validated the suitability of the material(s) detailed in the table below to be acceptable under The Pressure Equipment Safety Regulations 2016, Schedule 2(8) as applicable to Great Britain for use in pressure equipment manufacture.

Original Material manufacturer:		<i>COMPANY NAME/ LOCATION</i>		
Product Form	Product code or standard	Product grades	Product dimensions & quantity	Original material manufacturers test reports

This certificate is only valid for the specific materials detailed above and is subject to appropriate records pertaining to the materials traceability and use being maintained up to date by: *Material Stockist name*.

Approval is based on UK AB / CB Material Qualification *Scheme /Procedure*:

Certificate No:

Date of Review:

Date of Certificate:

Signature of Decision Maker

Company Stamp

Company logo here

Certificate Number: **XXXX**

CERTIFICATE OF SUITABILITY OF A MATERIAL MANUFACTURER

In accordance with the requirements of the Pressure Equipment Safety Regulations 2016 as they apply to Great Britain.
SI 2016 No. 1105

Applicant: *Material Manufacturer*

COMPANY NAMEXXXX, an approved body / competent body as described within the Pressure Equipment Safety Regulations 2016, as amended, has verified, and validated the suitability of the material(s) detailed in the table below to be acceptable under The Pressure Equipment Safety Regulations 2016, Schedule 2 (8) as applicable to Great Britain for use in pressure equipment manufacture.

Product Form	Product code or standard	Product grades	Product dimensions & quantity	Original material manufacturers QMS Certificate

Continued approval is subject to the referenced QMS certificate being maintained and kept up to date in accordance with the scope of original certification body approval. Any changes to the scope and or the products listed above invalidate this certificate. It remains incumbent on the user of this certificate to verify its continued validity.

Approval is based on UKAB Material Qualification *Scheme /Procedure*: Certificate No:

Date of Review:

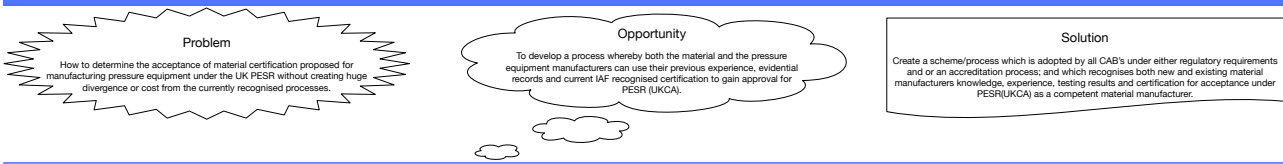
Date of Certificate:

Date of Expiry:

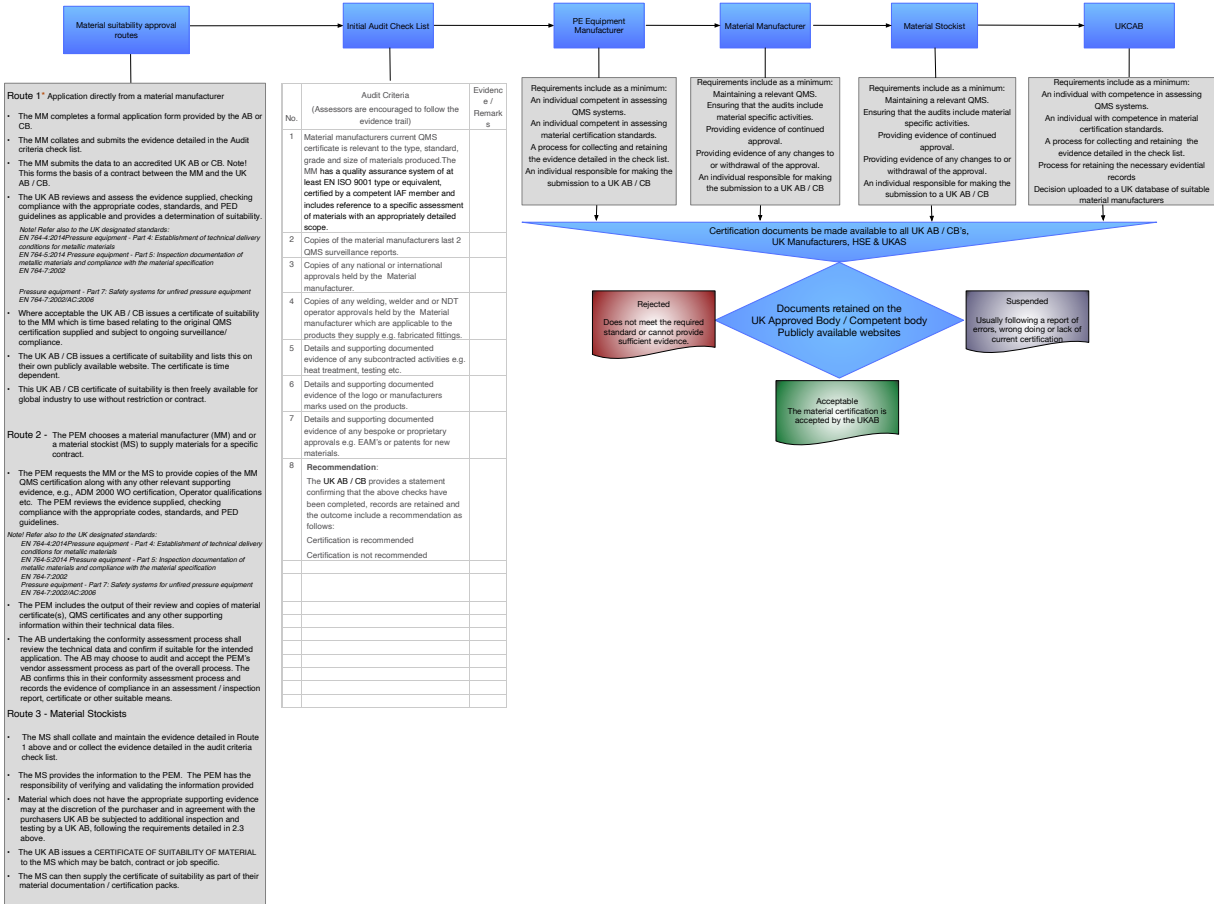
Signature of Decision Maker

Annex A – Process flow

Materials Process Flow



UK PESR Suitable Material Manufacturers Scheme/Process



9 Bibliography

- [1] UK Pressure Equipment Safety Regulations 2016, as they apply to Great Britain_
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- [2] The Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019,
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https://ec.europa.eu/growth/sectors/pressure-equipment-and-gas-appliances/pressure-equipment-sector/pressure-equipment-directive_en