

Code of Practice for the approval of NDT personnel 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 22 of Schedule 2 to the Pressure Equipment (Safety) Regulations 2016 as they apply to Great Britain stipulates that for pressure equipment in categories III and IV, non-destructive tests of permanent joints must be carried out by suitable qualified personnel who must be approved by a UK recognised third-party organisation.

As a result, this Code of Practice (CoP) has been developed to provide a consistent approach to the use and acceptance of Non-Destructive Testing (NDT) personnel approvals not subject to original approval by the organisation referenced above.

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

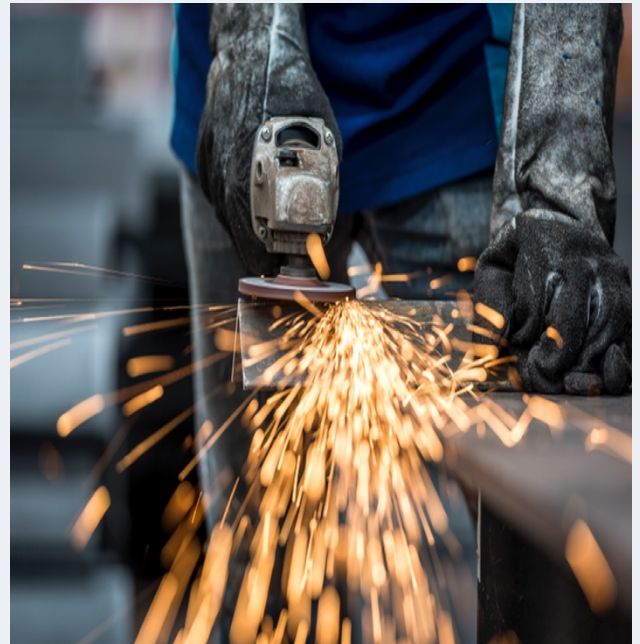
Problem

How can NDT operators, holding approvals which are not recognised under the Pressure Equipment Directive and or the Pressure Equipment (Safety) Regulations 2016 as they apply to Great Britain (PESR) for UKCA marking, be accepted for pressure equipment being built for or imported into the GB market

Scope

This Technical CoP provides a methodology for the approval of NDT personnel under Paragraph 22 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) F-02, F09 and F-13 are included, to ensure a consistent approach and a high level of confidence in the approval of NDT personnel by UK approved bodies. 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 Recognised Third Party Organization (RTPO)

1.1.1. In the UK for the purpose of compliance with the PESR, a body appointed by the Secretary of State to be recognised third party organisation.

1.2 Internationally Recognised Third Party Organisations

1.2.1. A European body appointed by a member state of the European Union or EFTA countries for the purposes of the tasks referred to in Directive 2014/68/EU, Article 20 and Annex 1, paragraph 3.1.3, for pressure equipment, non-destructive tests of permanent joints shall be carried out by suitable qualified personnel. For pressure equipment in categories III and IV, the personnel shall be approved by a third-party organisation recognised by a Member State pursuant to Article 20. or

1.2.2. A body internationally recognised as an independent third-party organisation, duly accredited against the applicable codes and standards by a national accreditation body being a member of the International Accreditation Forum and holding the appropriate scope.

1.3 Approval of NDT Personnel

A procedure used to demonstrate the competence of an individual to undertake NDT of permanent joints for pressure equipment in categories III and IV.

1.4 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 being a member of the International Accreditation Forum confirming that a specified individual is approved (see 1.2).

1.5 Qualification

A demonstration of physical attributes, knowledge, skill, training and experience required to properly perform NDT tasks.

1.6 Certification

A procedure used by the certification body to confirm that the qualification requirements for a non-destructive test of permanent joints have been fulfilled, according to the applicable codes and standards leading to the issuing of a certificate.

1.7 Relevant sector

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

Note 1 - A sector can be interpreted to mean a product (welded products, castings) or an industry (aerospace, in-service testing).

1.8 Permanent joints

Joints which cannot be disconnected except by destructive methods e.g., made by fusion welding, brazing, braze welding, expansion, rolling etc.

1.9 Independent Verification and Validation (IV&V).

1.9.1 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.

1.9.2 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.

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

1.10 Accreditation to BS EN ISO/IEC 17024:2012

It is a pre-requisite that UK RTPOs, appointed under the regulations that apply in Great Britain, intending to undertake activities in accordance with this code of practice shall be accredited by the United Kingdom Accreditation Service (UKAS) to BS EN ISO/IEC 17024:2012. They shall maintain a quality management system including a specific certification scheme which includes or references the technical contents and processes of this Code of Practice.

1.11 Interested party

Interested party is an individual, group or organization affected by the performance of a certified person or the certification body.

2 – General

The basis for a decision by a UK RTPO for the approval of NDT personnel according to the Pressure Equipment (Safety) Regulations 2016, as they apply to Great Britain, shall be a valid qualification, or a certificate of competence, issued by a recognised third-party covering NDT qualification in the relevant sector.

There are three cases described below, as the Approval of NDT Personnel routes A, B and C, all of which require that a UK RTPO accepts the total responsibility for issuing a certificate or approving an existing certificate* under the UK law (PESR's) as follows:

A) Certification issued by a UK RTPO; where individuals are certified according to BS EN ISO 9712 in a relevant sector by a UK certifying body, recognised and appointed for that purpose.

B) Certification by a body which is not a UK body; but is currently recognised by an EU member state for the certification of NDT personnel against EN ISO 9712 in a relevant sector by a certifying body recognised as an RTPO on [NANDO](#) and for which the accepting UK body has verified and validated the certification against the requirements of the BS EN ISO 9712.

C) A body internationally recognised as an independent third-party organisation, duly accredited against the applicable codes and standards by a national accreditation body and for which the accepting UK body has verified and validated the certification. Individuals qualified in a relevant sector using qualification criteria equivalent to those of the BS EN ISO 9712.

Note 1

The basis for acceptance of certification is based on the requirements set out in PD CEN/TR 15589:2014 - Non-destructive testing Code of practice for the approval of NDT personnel by recognised third party organisations under the provisions of Directive 97/23/EC - 2014/68/EU.

Note 2

It is a mandatory pre-requisite of any takeover or re-certification of NDT personnel, is that the original certification body hold or have held accreditation for an EN ISO 9712 compliant scheme against ISO/IEC 17024 2012, issued by a member of the International Accreditation Forum (IAF), with an appropriate scope, at the time of issue of the original certificate.

3 - Approval of NDT personnel requirements

3.1 General

For the approval of NDT personnel one of the following routes shall be applied.

3.2 Route A

An individual holds a current recognised certificate for the required sector issued by a UK RTPO. In this case, the individual is considered to be approved without further action.

3.3 Route B

An individual holds a current recognised certificate issued by a body which is not a UK body; but is currently recognised by a member state of the EU for the certification of NDT personnel and for which the accepting UK body has verified and validated the certification and the required supporting documents. In this case, the individual is considered to be approved once the following actions have been verified and validated:

- i. A copy of the original personnel certificate.
- ii. The approval status of the certification body via the Nando website at the time of issue of the certificate.
- iii. Copies of the supporting test reports/documents as required by the applicable code or standard, e.g., EN 9712.
- iv. Successfully completing the UK RTPO's awareness, knowledge and application requirements.

These documents shall include, as a minimum, evidence of the following:

- i. the individual is a signatory to relevant the Scheme Rules
- ii. the individual provides two documents confirming their address and identity
- iii. a copy of their current certification
- iv. a copy of their latest experience, via a CV, worklog or similar
- v. a copy of their NDT training records
- vi. a copy of a letter of confirmation from their current/last employer attesting to their
- vii. experience and duties
- viii. an agreement to register with a UK Certification Body Scheme and to follow the
- ix. Scheme rules

Once a satisfactory review is completed the UK RTPO may issue a new UK certificate referencing the original approval. The UK RTPO is then legally responsible for the certificate under its scheme rules.

3.4 Route C

An individual holds a current recognised certificate by a body which is not a UK body; but is a body internationally recognised as an independent third-party organisation, duly accredited against the applicable codes and standards by a national accreditation body. In this case, the individual is considered to be approved once the following actions have been verified and validated:

- i. A copy of the original personnel certificate.
- ii. The approval status of the certification body confirmed via the supplied documentation and or an applicable database (typically on-line) at the time of issue of the certificate.

- iii. Copies of the supporting test reports/documents as required by the applicable code or standard, e.g., BS EN 9712:2012.
- iv. Successfully completing the UK RTPO's awareness, knowledge and application requirements.

These documents shall include, as a minimum, evidence of the following:

- i. the individual is a signatory to relevant the Scheme Rules
- ii. the individual provides two documents confirming their address and identity
- iii. a copy of their current certification
- iv. a copy of their latest experience, via a CV, worklog or similar
- v. a copy of their NDT training records
- vi. a copy of a letter of confirmation from their current/last employer attesting to their experience and duties
- vii. an agreement to register with a UK Certification Body Scheme and to follow the Scheme rules.

Once a satisfactory review is completed the UK RTPO shall issue a new UK certificate referencing the original approval. The UK RTPO is then legally responsible for the certificate under its scheme rules.

4 - Approval attestation

It is incumbent on the UK RTPO to ensure that all relevant records required by BS EN 9712:2012, BS EN ISO 17024:2017 and the relevant Scheme rules in support of the approval certificate are maintained and readily accessible during UKAS assessments and or on request from the Market Surveillance and Enforcement Authority.

5 - Renewal of Approvals

Upon the expiry of the certificate, an NDT personnel approval may be renewed by the UK RTPO provided that the criterion for the initial approval remain fulfilled and the necessary evidence of renewal from one of the routes listed in section 3, b or c above is provided.

Note: The scheme operated by the UK RTPO shall comprehensively detail the requirements for renewal in accordance with BS EN ISO 9712.

6 – Certification Scheme

The UK RTPO shall develop and maintain a certification scheme in accordance with the requirements of BS EN ISO/IEC 17024:2012 incorporating the process and technical requirements of this Code of Practice. The quality management system including the scheme shall be accredited by UKAS.

The scheme shall meet all the requirements of BS EN ISO/IEC 17024:2012 and more specifically detail the methodology of attesting each individual applicant, this testing shall include a mechanism for examining and measuring the applicant's awareness, knowledge and application of the UK Pressure Equipment (Safety) Regulations as they apply in Great Britain.

7 – Interested Party

This Code of Practice has been developed by a group of significantly interested parties, at the time of publishing this included representation from the following organisations, please note the list is not exhaustive and other interested companies and individuals have been consulted during the development process:

The UK Approved Bodies Forum (CABF)
The British Institute of Non-Destructive Testing
The Safety Assessment Federation (SAFed)
The Engineering Equipment and Materials User Association (EEMUA) (TBC)
The Pressure Vessel Manufacturers Forum (TBC)
Independent manufacturers and NDT operators/consultants (TBC)

Note! UK RTPOs shall consider the need for wider consultation of interested parties in respect of their specific certification schemes as applicable.

8 – UKCA marking easement relating to certification of NDT personnel

To make it simpler for businesses to adopt UKCA marking, the government has brought forward the following measure which relates to certification of NDT personnel.

Reducing recertification/ 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).

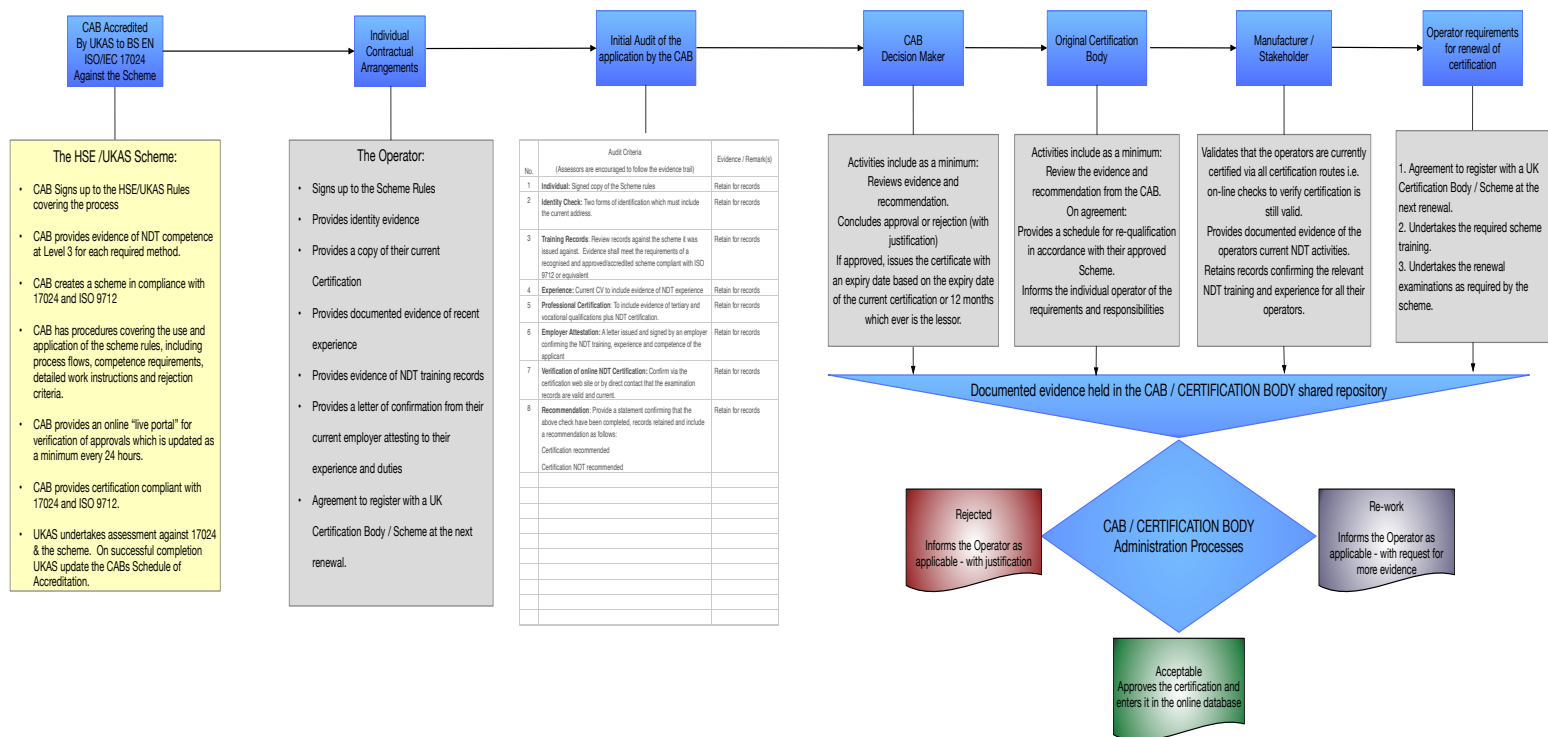
This means that the NDT activities performed by qualified operators can continue to be accepted for items of equipment either in full or in part i.e., where an item is to be incorporated into an assembly destined for the UK market, until their certificate expires or 2027 whichever is sooner. Approvals and renewals of NDT operator certification post 31/12/2022 will require approval by a UK AB.

Note! Changes in the scope of a certificate constitutes a renewal and will require UK RTPO certification.

Importers / Manufacturers will need to provide evidence that the individual operator certification was completed by an EU Notified Body / RTPO, and the individual was correctly certificated prior to 01/01/2023.

RTPOs - where they are involved in subsequent processing activities or global assembly assessments, they shall assess the evidence provided by the manufacturer to determine its acceptability for the purpose intended. The UK RTPO shall document its review and justification for acceptance.

Process Flow chart



Bibliography

- [1] UK Pressure Equipment Safety Regulations 2016, as they apply to Great Britain
<https://www.legislation.gov.uk/uksi/2016/1105/schedule/2>

- [2] The Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019, as amended** <https://www.legislation.gov.uk/uksi/2019/696/contents/made>

- [3] Guidelines - The provisions of EU PED 2014/68/EU Guidelines F-02, F-09, F-13 and G-16.
https://ec.europa.eu/growth/sectors/pressure-equipment-and-gas-appliances/pressure-equipment-sector/pressure-equipment-directive_en

- [4] *BS EN ISO 9712:2012 - Non-destructive testing — Qualification and certification of NDT personnel*

- [5] *BS EN ISO/IEC 17025:2005 - General requirements for the competence of testing and calibration laboratories*