



BSI Standards Publication

**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**

National foreword

This Published Document is the UK implementation of CEN/TR 15589:2014. It supersedes PD CEN/TR 15589:2007 which is withdrawn.

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A list of organizations represented on this committee can be obtained on request to its secretary.

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English Version

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

Essais non destructifs - Code de pratique pour l'approbation
du personnel chargé des END par des entités tierces
parties reconnues en application des dispositions de la
Directive 97/23/CE

Zerstörungsfreie Prüfung - Verfahrensregeln für die
Anerkennung von ZfP-Personal durch anerkannte dritte
Organisationen nach den Vorgaben der Richtlinie 97/23/EU

This Technical Report was approved by CEN on 9 December 2013. It has been drawn up by the Technical Committee CEN/TC 138.

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Foreword

This document (CEN/TR 15589:2014) has been prepared by Technical Committee CEN/TC 138 "Non-destructive testing", the secretariat of which is held by AFNOR.

This document supersedes CEN/TR 15589:2007.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to Pressure Equipment Directive 97/23/EC Article 13 section 1, it is essential that European Union Member States and EFTA countries notify the European Commission and the other Member States of the Third Party Organizations (RTPO) which they have recognized for the purposes of the tasks referred to in Annex 1, section 3.1.3, namely the 'Approval' of NDT personnel to test permanent joints of categories III and IV pressure Equipment and Pressure Assemblies [1].

The methodology for 'Approval' of NDT personnel is not specified in Directive 97/23/EC, and it was agreed by the European Conformity Assessment Bodies Forum (CABF) that guidance was required in order to ensure a consistent approach to the application of the Directive and the implementation of Working Group Pressure Guideline 6/13 (17th March 2004) by Recognized Third Party Organisations (RTPO) (see Annex C).

As a result, a Code of Practice (CoP) was developed from a draft proposed by The European Federation for NDT. This CoP was published as CABF TRG 0034 on 24th November 2004, with a recommendation that this document be submitted to CEN for possible development as a Technical Report (TR) or Specification (TS).

1 Scope

This Technical Report provides a methodology for approval of NDT personnel under the provisions of Directive 97/23/EC, Annex 1, section 3.1.3.

The provisions of Guideline 6/13 are detailed herein to ensure a consistent approach and a high level of confidence in the approval of NDT personnel by RTPO's through widespread adoption of the criteria and approval processes detailed herein. A flow diagram illustrating this methodology is presented in Annex A.

2 Terms and definitions

For the purposes of this Technical Report, the following terms and definitions apply.

2.1

Recognised Third Party Organization (RTPO)

body recognised by a member state of the European Union or EFTA countries for the purposes of the tasks referred to in Directive 97/23/EC, Article 13 section 1, and in Annex 1, section 3.1.3, namely the 'approval' of NDT personnel to test permanent joints for pressure equipment in categories III and IV, and whose recognition has been notified to the European Commission or EFTA countries and the other Member States

2.2

approval of NDT Personnel

procedure used to demonstrate the competence of an individual to carry out specific non-destructive tests of permanent joints for pressure equipment in categories III and IV (see Directive 97/23/EC Annex 1, section 3.1.3)

2.3

approval attestation

documented statement issued by an RTPO that a specified individual is approved (see 2.2)

2.4

qualification

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

[SOURCE: EN ISO 9712:2012]

2.5

certification

procedure used by the certification body to confirm that the qualification requirements for a method, level and sector have been fulfilled, leading to the issuing of a certificate

[SOURCE: EN ISO 9712:2012]

2.6

relevant sector

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

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

[SOURCE: EN ISO 9712:2012]

2.7

permanent joints

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

3 General

The basis for a decision by an RTPO for approval of NDT personnel according to Directive 97/23/EC, Annex I, section 3.1.3 shall be a valid qualification, or a certificate of competence, issued under either 2nd or 3rd party arrangements covering Non-Destructive Testing in a Relevant Sector. There are three cases described as Approval NDT personnel routes A, B and C, as follows:

- A) Certification by RTPO; Individuals who are certified according to the European Standard EN ISO 9712 in a relevant sector by a certifying body also recognized as an RTPO.
- B) Certification by a body which is not an RTPO; Individuals who are certified according to the European Standard EN ISO 9712 in a relevant sector by a certification body *which is not an RTPO*.
- C) Cases other than routes A and B; Individuals qualified in a relevant sector using qualification criteria equivalent to those of the European Standard EN ISO 9712.

4 Approval of NDT personnel requirements

4.1 General

For the approval of NDT personnel by a RTPO, one of the following routes shall be applied.

4.2 Route A

An individual holds an EN ISO 9712 certificate in a relevant sector issued by a Certification Body which is also an RTPO. In this case, the individual is considered to be approved without further action.

4.3 Route B

An individual holds an EN ISO 9712 certificate in a relevant sector issued by a certification body *which is not a RTPO*, but which has a formal contractual arrangement with a RTPO to carry out assessments as a sub-contractor. In this case the individual may be approved by the above mentioned RTPO upon receipt of satisfactory documented evidence of qualification and certification provided by the certification body concerned.

4.4 Route C

4.4.1 An individual qualified in a relevant sector against criteria of an accepted standard that is equivalent to EN ISO 9712 may be approved by an RTPO, provided it is satisfied that qualification criteria equivalent to those of the standard have been met.

4.4.2 When applying approval by route C, a qualification on-site audit is required. The RTPO shall appoint one or more assessors who, between them hold NDT Level 3 certification issued by a third party certification body, covering the relevant sector(s) and those NDT method(s) equivalent to those applied by the NDT personnel to be approved.

4.4.3 In particular, the RTPO assessor(s) shall ascertain during an audit conducted on site that the individual to be approved has:

- satisfactory vision and colour perception;
- completed general and job-specific training prior to examination;
- acquired suitable industrial experience in the applicable NDT method and relevant sector(s);
- been successful in general and relevant specific written qualification examinations;
- been successful in job-specific practical examinations that are relevant to the testing of permanent joints in pressure equipment;
- continues to be qualified, without significant interruption, in the testing of permanent joints to pressure equipment; and
- is familiar with and able to satisfactorily implement defined NDT procedures and/or NDT instructions for the testing of permanent joints to pressure equipment.

4.4.4 The RTPO assessor(s) shall assess each of the NDT personnel applying for Approval. The assessment shall involve, as a minimum, a practical examination during which the individual seeking approval shall be observed, satisfactorily applying at least one relevant NDT instruction or procedure covering each of the NDT methods for which Approval is sought.

5 Approval attestation

5.1 NDT Approval(s) issued by the RTPO shall have a maximum validity period of five years for route A and B, and three years for route C.

5.2 When required, i.e. in relation to approval under Routes B and C, the RTPO will issue an approval attestation. The attestation shall include at least:

- a) identity of the RTPO;
- b) full name of the approved individual;
- c) name of the qualifying body (in Route C this will be the employer or the pressure equipment manufacturer);
- d) NDT method(s) for which the individual is approved;
- e) scope and limitations of the approval (e.g. whether the individual is approved only to carry out the test without interpreting the results, or applying NDT to specific materials using particular NDT equipment). This could be accomplished by referring to a level as defined in EN ISO 9712;
- f) reference to Directive 97/23/EC Annex 1, section 3.1.3;
- g) conditions for maintaining and surveillance validity of the approval;
- h) expiration date of approval (this could be in phase with the expiry date of the associated qualification/certification);
- i) signature of the RTPO's representative.

A model approval attestation is given in Annex B.

6 Renewal of approvals

Upon expiry, an NDT personnel approval may be renewed by the RTPO provided the criteria for initial approval remain fulfilled.

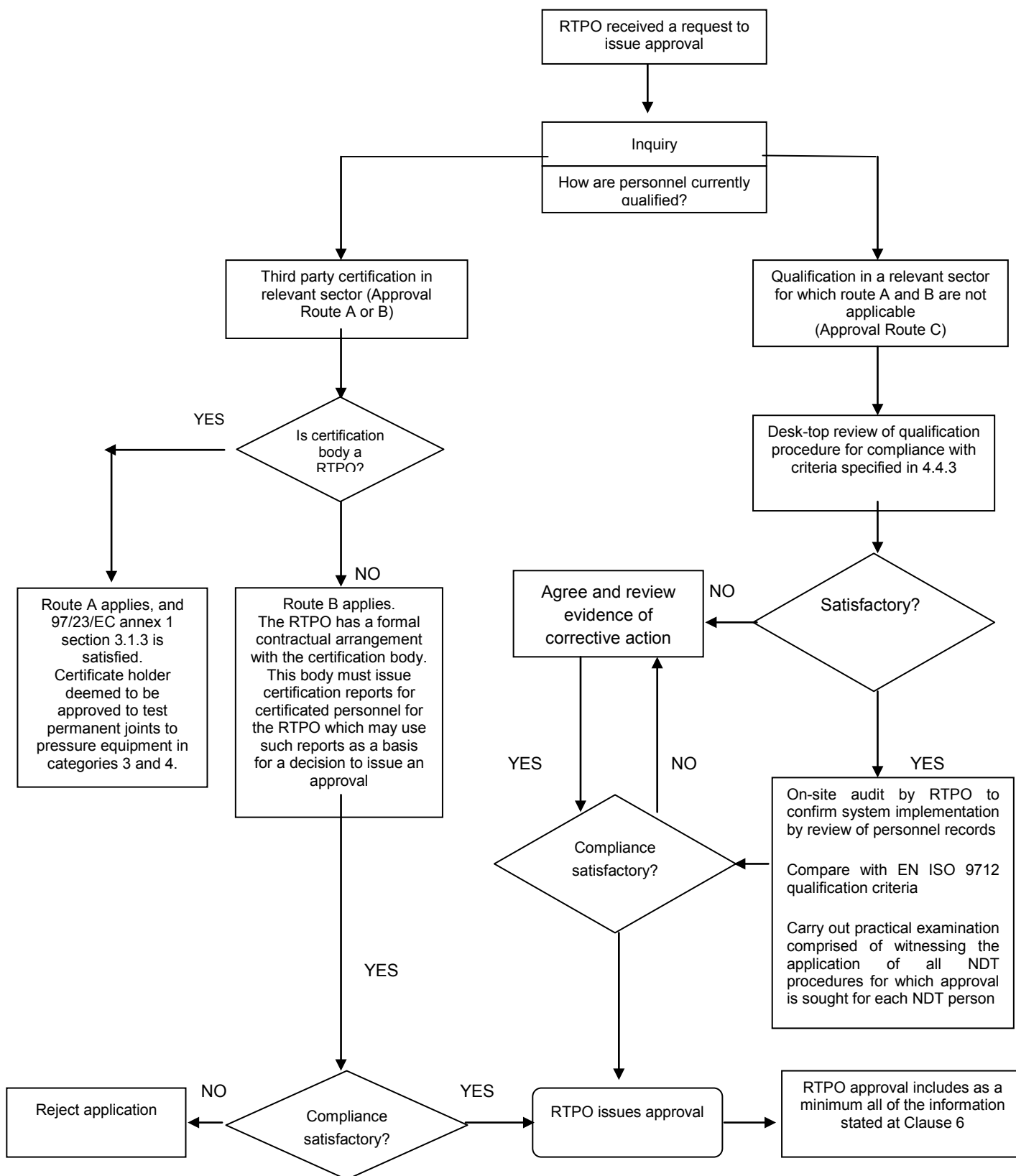
Route A: Approval will be renewed automatically upon EN ISO 9712 renewal or recertification.

Route B: Approval may be renewed by the RTPO upon receipt of documentary evidence from the sub-contractor that EN 473 or EN ISO 9712 renewal or recertification has been completed.

Route C: Approval can be renewed by the RTPO provided the criteria defined in 4.4 remain fulfilled.

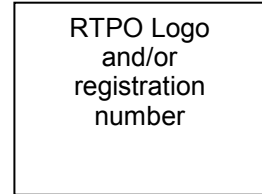
Annex A (informative)

Flow diagram



Annex B
(informative)

Model approval attestation



Issue date:

Issue number:

Expiry date:

TO WHOM IT MAY CONCERN

[Insert Name of RTPO], which is a Recognized Third Party Organization as described within the European Pressure Equipment Directive 97/23/EC, at Article 13, has approved the following NDT personnel to carry out the specified non destructive tests on permanent joints to pressure equipment in category III and IV (PED 97/23/EC, Annex I, section 3.1.3 refers).

| Full name of Approved NDT Person | NDT method(s) covered by approval | Scope of Approval including level of certification and any applicable limitations | Qualification body |
|----------------------------------|-----------------------------------|---|--------------------|
| | | | |

The RTPO has approved the named NDT personnel to carry out the specified non-destructive tests on the basis of:

Specify the route or process leading to Approval, and state the conditions of validity of the approval:

Routes B conditions of validity: The validity of the approval is conditional upon the associated third party certificate remaining valid.

Route C conditions of validity: The validity of the approval is conditional upon the second party certification of the named NDT personnel being maintained up to date in accordance with internal procedure(s) or a written practice satisfying the criteria of an accepted standard.

Annex C (informative)

Guideline 6/13 Adopted by Working Group Pressure

| | | | |
|----------------------------|--|------------------------|----------------------|
| Guideline | 6/13 | CLAP | Form N° 255 i |
| | | | Version 2 |
| Keyword | non destructive test NDT | | qualification |
| Directive reference | Annex I § 3.1.3 | | |
| Adopted by WGP | 18/03/2004 | Adopted by CLAP | 18/03/2004 |
| Subject | ESR on manufacturing - Approbation of NDT personnel | | |
| Question | For pressure equipment in categories III and IV, can Non-Destructive Testing personnel holding qualifications other than those satisfying criteria of the harmonised standards (e.g. EN 473:2000 General principles for qualification and certification of NDT personnel) be approved by Recognised Third Party Organisations (RTPO) notified by a member state under Article 13 paragraph 1? | | |
| Answer: | <p>Yes.</p> <p>NDT personnel certified under standards, other than the harmonised standards, may be approved by a RTPO provided it is satisfied that certification criteria equivalent to the harmonised standards have been met, and that the scope of certification is relevant to the testing of permanent joints in pressure equipment.</p> <p>A RTPO may sub-contract part of its work, within the provisions of the New Approach guide, but shall keep the full responsibility and issue the approval. The approval of the personnel shall be done by a RTPO on an individual basis.</p> <p>Note: Approval of an individual solely on the basis of a certificate issued by another body where no contractual arrangement exists with the RTPO does not fulfil the requirement of the Pressure Equipment Directive.</p> <p style="margin-top: 20px;">Modifications compared to the previous adopted version : Editorial correction on 2004-09-16.</p> | | |

29/10/2004

AFNOR Normalisation and UNM

Bibliography

- [1] EQUIPMENT DIRECTIVE P. - 97/23/EC (PED), Adopted by European Parliament and European Council, May 1997,
http://europa.eu.int/comm/enterprise/pressure_equipment/ped/index_en.html
- [2] Guideline 6/13 Adopted by Working Group Pressure,
http://europa.eu.int/comm/enterprise/pressure_equipment/ped/guidelines/guideline6_en.html
- [3] EN 473, *Non-destructive testing - Qualification and certification of NDT personnel - General principles*
- [3] EN ISO 9712:2012, *Non-destructive testing - Qualification and certification of NDT personnel (ISO 9712:2012)*

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