

# SLOVENSKO TEHNIČNO POROČILO

**SIST CR 12459**

prva izdaja  
junij 1997

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**Neporušitvene preiskave - Kvalificiranje in certificiranje osebja za neporušitvene preiskave (prevzet CR 12459:1996 z metodo platnice)**

Non-destructive testing - Qualification and certification of NDT personnel

**iTeh STANDARD PREVIEW**

Essais non-destructifs - Qualification et certification du personnel en contrôle non destructif

[SIST CR 12459:1997](#)

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Zerstörungsfreie Prüfungen - Qualifizierung und Zertifizierung von Personal der zerstörungsfreien Prüfung

Deskriptorji: neporušitvene preiskave, osebje, kvalificiranje, certificiranje

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ICS 19.100

Referenčna številka  
SIST CR 12459:1997 ((sl),en)

Nadaljevanje na straneh od II do III in od 1 do 8

## UVOD

Tehnično poročilo SIST CR 12459 ((sl),en), Neporušitvene preiskave - Kvalificiranje in certificiranje osebja za neporušitvene preiskave, prva izdaja, 1997, ima status slovenskega tehničnega poročila in je z metodo platnice prevzeto evropsko tehnično poročilo CR 12459, Qualification and certification of NDT personnel, 1996-07, v angleškem jeziku.

## NACIONALNI PREDGOVOR

Tehnično poročilo CR 12459:1996 je pripravil tehnični odbor Evropske organizacije za standardizacijo CEN/TC 138 Neporušitvene preiskave.

Odločitev za prevzem tega tehničnega poročila po metodi platnice je dne 1997-05-08 sprejel tehnični odbor USM/TC PKG Preskušanje kovinskih gradiv.

Ta slovenski standard je dne 1997-06-05 odobril direktor USM.

## ZVEZE S STANDARDI

S prevzemom tega evropskega tehničnega poročila veljajo poleg standardov, navedenih v izvorniku, še naslednje zveze:

SIST EN 473	Kvalificiranje in certificiranje osebja za neporušitvene preiskave - Splošna načela
SIST EN 10079	Definicije jeklenih izdelkov
SIST EN 45013	Splošni kriteriji za certifikacijske organe za področje certificiranja osebja

## OSNOVA ZA IZDAJO STANDARDA

- Prevzem tehničnega poročila CR 12459:1996

## OPOMBA

- Uvod in nacionalni predgovor nista sestavni del standarda.

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**REPORT**

**CR 12459:1996**

**RAPPORT**

July 1996

**BERICHT**

juillet 1996

Juli 1996

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English version

Non-destructive testing  
Qualification and certification of NDT personnel

Essais non-destructifs  
Qualification et certification du  
personnel en contrôle non destructif

Zerstörungsfreie Prüfungen  
Qualifizierung und Zertifizierung von  
Personal der zerstörungsfreien  
Prüfung

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This CEN REPORT has been prepared by Technical Committee CEN/TC 138 "Non-destructive testing" and has been approved by CEN on 1996-03-06.

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**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

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Ref. no. CR 12459:1996 E

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## Foreword

This Technical Report was produced by CEN/TC 138 "Non Destructive Testing", the Secretariat of which is held by AFNOR.

During the preparation of EN 473, it was decided to complement this European Standard with a document giving an interpretation on EN 473 and details concerning the qualification examination of levels 1 and 2.

This Technical Report is based on the results of discussions which have taken place during the meetings held the 29th November 1992, 5th and 6th April 1993, the 5th October 1993 and the 28th and 29th April 1994. The following countries were represented at these meetings : Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Luxemburg, Netherlands, Norway, Spain, Sweden, Switzerland and United Kingdom.

## 1 Scope

This Technical Report gives interpretations of certain clauses of EN 473 and specifies also the requirements concerning the qualification examination of levels 1 and 2.

## 2 Normative references

This Technical Report incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any publications apply to this Technical Report only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 473 Qualification and certification of NDT personnel - General principles,

EN 10079 Definition of steel products,

EN 45013 General criteria for certification bodies operating certification of personnel.

## 3 Definitions

The definitions of the terms used in this Technical Report are those defined in EN 473.

## 4 Interpretation of EN 473 clauses

The following interpretations are classified in the order of the clauses of EN 473.

### \* Generalities

It is understood that :

- there may be more than one independent certifying body complying with EN 45013 in a country,
- the authorized body and examination centre are part of the system regulated by the independent certifying body and shall not be considered as separate elements.

### \* Clause 1 "Scope"

- first subclause : "Industrial" means "excluding application in the field of medicine",

- third subclause : "relevant standard" is understood to mean : EN 473 concerning the certification scheme and EN 45013 concerning the independent certifying body.

\* **Clause 3.4 "Authorized body"**

It is understood that an authorized body in the case of industrial sector, shall comprise more than one company of this sector, for example a group of producers. The independence of authorized body shall be verified by the independent certifying body.

In the second paragraph "refer" to means "cover".

\* **Clause 3.10 "Operating authorization"**

The explanation is given in the note of clause 8.2.

\* **Clause 3.15 "Industrial sector"**

When creating an industrial sector, it is recommended that the Independent Certifying Body takes in consideration the following reference list of industrial sectors :

- castings (ferrous and non-ferrous materials),
- forgings (all types of forging : ferrous and non-ferrous materials),
- welds (all types of welds including soldering for ferrous and non-ferrous materials),
- tube and pipe (seamless, welded, ferrous and non-ferrous materials),
- wrought products except forging (plates, bar, rods... See EN 10079)
- multisector : combination of sectors including all or some products for a certain application (e.g. aerospace, in service inspection) or certain types of materials (e.g. ferrous materials, non-ferrous materials).

Multisectorial examination may be performed on all three levels and in all methods or may be restricted to particular levels or methods.

When an independent certifying body is creating a multisector, it shall define precisely the chosen combination of the sectors given in the list above.

\* **Clause 5.1.2**

In a) "control" means "supervision".

\* **Clause 5.2.1**

In f) "validate" means that the certifying independent body will indicate the effective date of certification, and authenticate the certification by inclusion of its signature, stamp, etc....

\* **Clause 5.2.4 "Employer"**

"Directly involved" means that the employer shall never have alone the responsibility for any action in the certification procedure.



\* **Clause 6.1.1 - Levels 1 and 2**

By "satisfactorily complete a course" it means that the candidate for certification shall provide documentary evidence, endorsed by the employer when applicable, of completion of training which describes the training organization, the method and level together with dates and duration of training in hours.

\* **Clause 6.3 "Visual acuity"**

Colour vision may be verified using tests such as the Ishihara test.

\* **Clause 7.1.1 "General examination"**

"Unpredictable way" means in a way that the candidate cannot predict the questions.

\* **Clause 7.1.2 "Specific examination"**

If the specific examination covers two or more sectors, the number of questions shall be increased by 5 for each additional sector up to a minimum number of 30 (except for leak testing). The total number of questions shall be evenly spread between the sectors concerned.

\* **Clause 12 "Transition period"**

- a) - the aim of this paragraph is to permit the starting of the system in a country that has no system of third party certification. It is also applicable when an Independent Certifying Body applies the certification scheme to a new NDT method or when a new industrial sector is created,

- "duly qualified personnel" means that such personnel

- \* have the knowledge of the principles of NDT and the specific knowledge relating to the sector of application,
- \* have an industrial experience of application of the NDT method,
- \* have the ability to conduct examinations,
- \* can interpret the questionnaires and results of practical examinations.

The duration of 5 years is accorded to the Independent Certifying Body. The appointment of the examiner shall terminate at the end of the transitory period.

b) and c)

These two cases are illustrated by the examples given in the following table, taking in account the fact that the EN 473 became valid on the date of its ratification (January 1993).

In case b), it is understood that the certification system of the Independent Certifying Body is based on similar requirements to those in EN 473 (training, experience, qualification examination).