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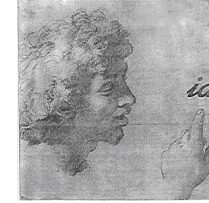
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# Guide to Qualification and Certification of Personnel for NDT

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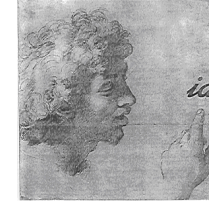
# ICNDT Guide

- ☐ 1. BACKGROUND
- ☐ 2. RECOMMENDATIONS ON QUALIFICATION AND CERTIFICATION
- ☐ 3. RESPONSIBILITIES OF THE EMPLOYER
- ☐ 4. REQUIREMENTS FOR NDT PERSONNEL CERTIFICATION BODIES



# The prime purpose of this Guide

...to promote best practice in the qualification and certification of NDT personnel according to the international standard EN ISO 9712. The competence of NDT personnel is a key element in achieving reliability in non-destructive testing (NDT) and is vital to ensure the quality and safety of products and installations.



# Who needs this Guide

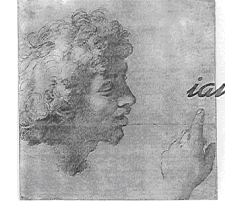
The ICNDT Guide is of importance to all tiers in the management of NDT operations: regulators, inspection bodies, certification bodies, industry, NDT service companies and supervisors of NDT personnel.

The ICNDT has promoted worldwide dissemination of NDT technologies and the harmonisation of personnel certification schemes for more than 45 years. The decision by ICNDT to promote the adoption of EN ISO 9712 as a basic standard for third-party qualification and certification of NDT personnel arises from the need to achieve a more consistent standard of basic knowledge and practical competence. Such standardisation becomes ever more important as the globalisation of trade increases.



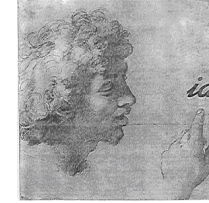
# Advantages of third-party qualification and certification

- It complies with an internationally agreed ISO standard that is increasingly being adopted worldwide;
- It utilises an internationally developed training syllabus;
- Examinations (theory and practical) are provided directly by certification bodies or through authorised qualifying bodies and authorised examination centres under the control of certification bodies (many of which are linked to national NDT societies);
- It provides a harmonised standard for training, qualification and certification of NDT personnel and can be used as the base level for more specific employer-based or third-party certification relevant to particular products or installations.



# Standard ISO 9712: 2005

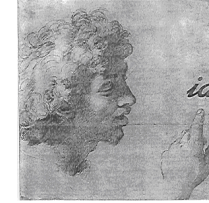
This Standard gives more detailed requirements for practical examinations (including details of practical examination specimens and their defect content) to determine the practical ability of the candidate, to better harmonise practical examinations and to provide guidance on the definition of industrial and product sectors to aid international harmonisation.



# **Correct use of third-party qualification and certification of NDT personnel**

**Is dependent on the employers' recognition of responsibility for NDT personnel**

**This is important in terms of good quality management practices (outlined in ISO 9001), product liability, meeting the requirements for accreditation and meeting the requirements of product standards and codes, such as the ASME Boiler and Pressure Vessel Code and the European Pressure Equipment Directive (97/23/EC)**



# Member of ICNDT

In each of the regions where ICNDT has members (Africa, the Americas, Europe, the Middle East and the Asia-Pacific region), ISO 9712 has been adopted as a basis for third-party certification schemes

For example:

- Brazil and Argentina have accredited certification schemes which comply with ISO 9712 and Canada also has a certification scheme based on the standard.
- In the USA, the American Society for Nondestructive Testing (ASNT) has introduced ANSI/ASNT standard CP 106, which is closely aligned with ISO 9712
- Many other countries in Latin America: Uruguay, Peru, Bolivia, Colombia and Venezuela, are developing national schemes based on ISO 9712. In the Asia-Pacific region, Australia, Japan and China, among many other countries, have introduced schemes based on ISO 9712
- In Europe, a large number of countries have schemes which comply with EN ISO 9712. A listing of certification schemes and their current status is provided.



# **Recommendations qualification and certification**

## **Recommendations to users of central third-party certification**

When central third-party certification is appropriate, it is recommended that regulators and industry define the levels of competency of NDT personnel who are certified in accordance with EN ISO 9712 by a certification body accredited to ISO IEC 17024.

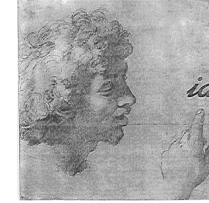
Regulators, users and auditors of NDT operations should recognise the importance of employers of NDT personnel properly fulfilling their responsibilities to authorise personnel to work after first confirming that their employees are adequately trained, experienced and qualified.

## **Recommendations to certification bodies**

Certification bodies are urged to provide certification to EN ISO 9712 in order to maximise the value of their certification. In anticipation of future harmonisation, their training syllabuses should encompass the requirements of ISO/TR 25107.

## **Recommendations to national standards bodies**

In adopting the international standard EN ISO 9712, the ISO member body is strongly urged to apply it without deviation from the original text in order to ensure that it acts as a harmonising influence. Failure to do so could result in a refusal to recognise or accept NDT personnel certification issued by certification bodies operating to national standards with deviations created under ISO guide 21.



# Responsibilities of the employer

- 1.** An employer of NDT personnel carries important responsibilities for the overall quality of NDT operations. These should be reflected in the employer's quality procedure for NDT (which may be known as the written practice<sub>1</sub>). The employer retains these responsibilities whether he uses in-company certification, third-party certification or a combination of both.
- 2.** It is a central tenet of the standard that the employer has overall responsibility for the results of NDT operations and is fully responsible for the authorisation of his staff to work. In practice, this must include checking that the NDT tasks to be carried out are within the scope of the individual's certification (sector, method and level) and, if they are not, organising additional job-specific training and/or examinations
- 3.** The employer is responsible for introducing candidates to the certification body and for documenting the candidate's education and prior experience. (If the candidate is unemployed or self-employed, the declaration of education, training and experience shall be attested to by at least one independent party.)



# Responsibilities of the employer

**4.** The employer must ensure annually that employees meet the visual acuity requirements of the certification body and must keep records of work experience that will be needed to demonstrate continuity of satisfactory work activity without significant interruption. This is important both for his own quality assurance and to support renewal/recertification.

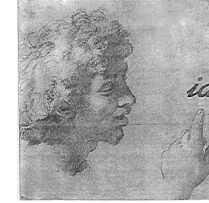
**5.** To fulfil these responsibilities the employer should prepare and implement a quality procedure (or written practice) covering at least the above responsibilities and maintain adequate records.



# The quality procedure

To cover the correct administration and control of NDT personnel in order to meet the quality requirements of the company, its customers and relevant international or national regulations, will include reference to:

1. Applicable codes and standards;
2. General responsibilities of Levels 1, 2 and 3;
3. Certification required (sector, method, level);
4. Persons designated by the employer to be responsible for issuing the authorisation to operate;
5. Control of in-house training and examination supplementary to that carried out during the ISO 9712 qualification and certification process. Responsibility for maintenance of records. The employer must maintain records for each of his NDT personnel including:
  - training;
  - education;
  - work experience;
  - vision test results;
  - certification examination results.



# When the quality procedure is fulfilled....

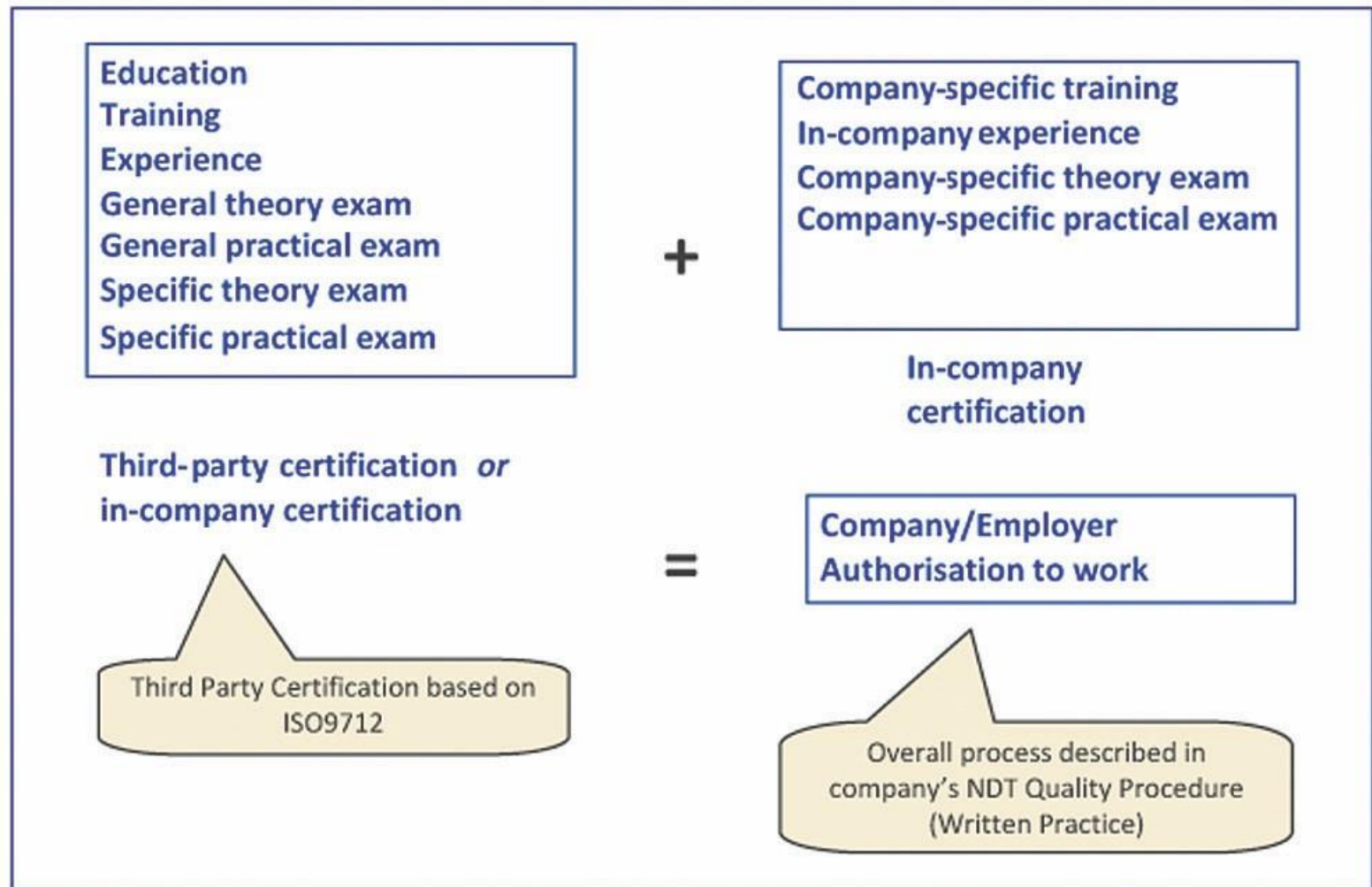
If these are complete and acceptable, then the employer issues the necessary authorisation to discharge the duties of

Level 1, 2 or 3 in a defined area of competence.

The best way for this to be done is through an employer's Certificate of Authority to Work and this should be signed by an appropriately designated person on behalf of the employer



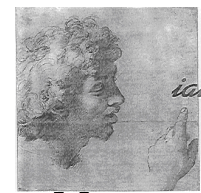
# Elements of personnel certification





# Employer checklist leading to authorisation to work

<b>COMPANY NAME:</b>			
<b>OPERATOR'S NAME:</b>			
<b>SCOPE OF CERTIFICATION (sector, method, level):</b>			
<b>Requirement</b>	<b>Evidence</b>	<b>In File</b>	<b>Accepted</b>
Valid test certificate for near vision acuity:			
Valid certificate of unimpaired colour vision:			
Work experience (in months according to level):			
Training hours (in hours according to level):			
Successful completion of qualification examination:			
Issued ISO 9712 certification:			
Job-specific training:			
Product/materials			
NDT equipment/systems			
NDT instructions/procedures			
Safety			
<b>Responsible Level 3 Acceptance</b>			
Signature:			
Name:			
Position:			
Date:			



# Requirements for NDT personnel certification bodies

## Specific requirements for NDT personnel certification bodies (NDT PCB)

EN ISO 9712 is the latest internationally recognised and widely accepted standard for qualification and third-party certification of NDT personnel, replacing ISO 9712 and EN 473.

## General requirements for personnel certification bodies (PCB)

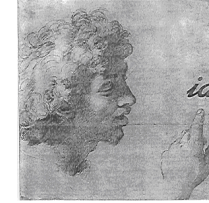
EN ISO 9712 requires that the certification system shall be controlled and administered by a certification body that conforms to the requirements of the standard EN ISO/IEC 17024. A PCB in compliance with EN ISO/IEC 17024 will be impartial in its decisions on certification and will ensure that assessments leading to certification are fair, valid and reliable.

## Quality management system (QMS)

EN ISO/IEC 17024 requires a QMS that is capable of supporting and demonstrating the consistent fulfilment of the requirements of 'this international standard' (clause 11.2 in DIS 17024: 2011). The standard states that an ISO 9001 compliant management system would fulfil the requirement.

## Accreditation

Accreditation is third-party attestation, by an authoritative body, conveyed in a formal document to carry out specific conformity assessment tasks and to give confidence in their activities and their outcomes. The accreditation process is intended to increase the confidence of users in the status of a certification body. Accreditation reduces the risk for users of certification by ensuring that accredited certification bodies are competent to carry out the work they undertake within their scope of accreditation.



# Questions ?



