

SS ISO 20807:2022
ISO 20807:2004, IDT
(ICS 03.100.30; 19.100)

SINGAPORE STANDARD

**Non-destructive testing – Qualification of personnel
for limited application of non-destructive testing**

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National Foreword

This Singapore Standard was prepared by the Working Group on Non-destructive Testing (also known as National Mirror Working Group on ISO/TC 135) set up by the Technical Committee on Workplace Safety and Health under the purview of the Quality and Safety Standards Committee.

This standard is an identical adoption of ISO 20807:2004, “Non-destructive testing – Qualification of personnel for limited application of non-destructive testing” published by the International Organization for Standardization.

NOTE 1 – Where appropriate, the words “International Standard” are read as “Singapore Standard”.

NOTE 2 – Reference to International/Overseas Standards are replaced by applicable Singapore Standards or Technical References.

NOTE 3 – Where numerical values are expressed as decimals, the comma is read as a full point.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

1. *Singapore Standards (SSs) and Technical References (TRs) are reviewed periodically to keep abreast of technical changes, technological developments and industry practices. The changes are documented through the issue of either amendments or revisions. Where SSs are deemed to be stable, i.e. no foreseeable changes in them, they will be classified as “Mature Standards”. Mature Standards will not be subject to further review, unless there are requests to review such standards.*
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INTERNATIONAL STANDARD

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Non-destructive testing — Qualification of personnel for limited applications of non-destructive testing

*Essais non destructifs — Qualification du personnel pour des
applications limitées en essais non destructifs*



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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 20807 was prepared by Technical Committee ISO/TC 135, *Non-destructive testing*, Subcommittee SC 7, *Personnel qualification*.

Introduction

Since the effectiveness of any application of non-destructive testing depends upon the capabilities of the persons who perform or who are responsible for the test, a procedure has been developed to provide a means for evaluating and documenting the competence of personnel whose duties require the appropriate theoretical knowledge and practical competence of the non-destructive tests that they perform.

For this reason, ISO/TC 135 developed an International Standard, ISO 9712, to ensure that the certification of competence of NDT personnel could be performed to a consistent and high standard worldwide.

Recognizing, however, that the provisions of ISO 9712 were not necessarily appropriate in some instances, e.g., in limited applications of non-destructive testing, ISO TC135 SC 7 authorized a Working Group (WG 5) to draft proposals which would facilitate the standardization of the qualification of personnel carrying out such limited NDT applications. This document represents the result of the deliberations of ISO/TC 135/SC 7/WG 5.

As a provision outside the scope of ISO 9712 requirements, limited NDT is the practice of a test method for a particular application requiring specific training and experience, i.e., an application which is limited, repetitive or automated. It should be noted that, within ISO 9712, there is provision for a reduction in the duration of training and experience required for eligibility. Annex A serves to provide examples of syllabi for the training and examination of personnel seeking qualification to this International Standard.

The methodology set out in this International Standard may be applied to the qualification of personnel for any limited application of NDT. However, it is not intended that qualification for limited applications be substituted for qualification and certification under ISO 9712.

NOTE Wherever gender-specific words such as "his", "her", "he" or "she" appear in this International Standard the other gender is also applicable.

Non-destructive testing — Qualification of personnel for limited applications of non-destructive testing

1 Scope

1.1 This International Standard establishes a system for the qualification of personnel who perform NDT applications of a limited, repetitive or automated nature, such as:

- a) eddy current and electromagnetic sorting of materials;
- b) eddy current and electromagnetic testing of tubular products during manufacture;
- c) normal beam ultrasonic testing of plate materials during manufacture;
- d) ultrasonic thickness testing.

These examples are not intended to restrict the range of qualifications which could be covered by this International Standard.

1.2 This standard therefore does not provide for magnetic particle testing (MT) or liquid penetrant testing (PT).

NOTE The arrangements described in ISO 9712 provide sufficient flexibility to allow limited applications of these methods.

1.3 When the need for qualified non-destructive testing (NDT) personnel is defined in product standards, regulations, codes or specifications, and the nature of the testing to be carried out is limited in scope or automated such that the qualification requirements specified in ISO 9712 are considered inappropriate or excessive, it may be satisfied by qualification in accordance with this International Standard.

1.4 This International Standard is not intended to supplant the qualification and certification requirements detailed in sector-specific standards, such as ISO 11484:1994 *Steel tubes for pressure purposes — Qualification and certification of non-destructive testing (NDT) personnel*.

1.5 The requirements detailed herein apply only to NDT personnel qualified for specific applications, and no direct attempt should be made to equate this to the NDT levels defined in ISO 9712. However, it is recommended that qualified personnel defined in this International Standard be supervised by an appropriately certified NDT level 2 or 3 person as defined in ISO 9712:1999.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 9712:1999, *Non-destructive testing — Qualification and certification of personnel*

ISO/IEC 17024, *Conformity assessment — General requirements for bodies operating certification of persons*