

AMERICAN SOCIETY FOR NONDESTRUCTIVE TESTING
RECOMMENDED PRACTICE No. SNT-TC-1A (1968 Edition)

**NONDESTRUCTIVE TESTING PERSONNEL QUALIFICATION
AND CERTIFICATION**



This recommended practice is contained in a main document (Pages I-IV), and a series of supplementary documents. The main document establishes the general framework for a qualification and certification program. The supplementary documents provide recommended education, experience, and training requirements for the different testing methods. The supplementary documents also include question and answer lists which may be used in composing examinations for nondestructive testing personnel.

Inquiries related to this recommended practice should be directed to the chairman of the ASNT Technical Council at the following address:

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NONDESTRUCTIVE TESTING PERSONNEL QUALIFICATION AND CERTIFICATION

1. SCOPE

- 1.1 Because it is recognized that the effectiveness of nondestructive testing applications depends upon the capabilities of the persons who are responsible for and carry out the testing, this recommended practice has been prepared to establish criteria for the qualification and certification of nondestructive testing personnel whose jobs require appropriate knowledge of the technical principles underlying the nondestructive tests they perform.
- 1.2 Supplementary documents forming a part of this recommended practice establish the principles for nondestructive testing personnel training and qualification for each of the methods listed in paragraph 3 - NONDESTRUCTIVE TESTING METHODS.

2. DEFINITIONS

- 2.1 Terms included in this document are defined as follows:
 - a. Qualification - Compliance with the requirements of certification.
 - b. Certification - Written testimony of qualification.
 - c. Certifying Agency - The employer of the personnel being certified.

3. NONDESTRUCTIVE TESTING METHODS

- 3.1 Certification of nondestructive testing personnel in accordance with this recommended practice shall be applicable to each of the following methods:
 - a. Radiographic
 - b. Magnetic Particle
 - c. Ultrasonic
 - d. Liquid Penetrant
 - e. Eddy Current

Note - Methods other than those listed above may be added as the need arises.

- 3.2 Certifications shall indicate the test method and level of qualification in accordance with the recommended practices specified in the supplementary documents for each method.

4. LEVELS OF QUALIFICATION

- 4.1 There shall be three levels of qualification:
 - a. NDT Level I - An NDT Level I individual must have sufficient training and experience to properly perform the necessary tests. He shall be responsible to a person certified to NDT Level II or NDT Level III for the proper performance of the tests in the applicable method.
 - b. NDT Level II - An NDT Level II individual shall be qualified to direct and carry out tests in the method certified. He must also be able to set up and calibrate equipment (where applicable), read

and interpret indications, and evaluate them with reference to applicable codes and specifications. He shall be thoroughly familiar with the scope and limitations of the method, and shall have the ability to apply detailed techniques to products or parts within his limit of qualifications. He shall be able to organize and report nondestructive testing results.

- c. NDT Level III - An NDT Level III individual shall be capable of establishing techniques, interpreting specifications and codes, designating the particular test method and techniques to be used, and interpreting the results. He shall be capable of evaluating the results not only in terms of existing codes or specifications, but he also should have sufficient practical background in applicable materials technology to assist in establishing tests and acceptance criteria when none are otherwise available. It is desirable that he have general familiarity with all other commonly used NDT methods. He shall be responsible for conducting examinations of NDT Level I and NDT Level II personnel.

- 4.2 The three levels of qualification may be further subdivided to acknowledge that additional levels of skills may be necessary for specific nondestructive testing applications.

5. REQUIREMENTS

- 5.1 The employer shall establish a written practice for the control and administration of NDT personnel training, examination, and certification.
- 5.2 The employer's written practice should incorporate the requirements set forth in the supplementary documents referenced in paragraph 1 - SCOPE.

6. EXAMINATION

- 6.1 To be considered for examination and certification, NDT personnel must meet the requirements of the applicable supplements to this recommended practice as adapted by the employer's written practice referenced in paragraph 5 - REQUIREMENTS.
- 6.2 Examination to verify physical and technical qualifications shall consist of four segments.
 - a. Physical
 - 1. An examination to assure natural or corrected near distance acuity such that the applicant is capable of reading J-1 letters on standard Jaeger's test type chart for near vision or equivalent test type. The examination shall be on an annual basis
 - 2. Color vision and/or additional medical requirements should be considered when preparing the employer's written practice.
 - b. General
 - 1. The general examination shall cover the basic test principles relative to the applicable method.
 - 2. In preparing the examination, the employer shall select appropriate questions covering the applicable method.

3. The questions, answers, and references provided in the applicable supplementary document are recommended as a guide during the development of the general examination.

c. Specific

1. The specific examination shall cover the equipment, operating procedures, and test techniques that the applicant may encounter in his specific assignment.
2. The specific examination should also cover the specifications or codes used by the employer in his nondestructive testing procedures.

d. Practical

1. The person considered for certification shall demonstrate to the satisfaction of the examiner that he is familiar with and can operate the necessary test equipment and analyze the resultant information to the degree required.
2. At least one selected specimen shall be tested and the results of the test shall be analyzed by the person considered for certification.

6.3 Grading of Examinations:

- a. An NDT Level III representative of the certifying agency shall be responsible for conducting and grading of examinations of all NDT Level I and NDT Level II personnel.
- b. A percentile grade of 80 shall be considered as satisfactory. This grade shall be a composite grade based upon the general, specific, and practical tests as weighted in the supplementary document covering the applicable method.

6.4 Re-examination:

- a. NDT personnel not considered to be qualified must wait at least 30 days or show evidence of having received suitable additional training as determined by the certifying agency before re-examination.

7. CERTIFICATION

- 7.1 Certification of all levels of nondestructive test personnel shall be performed by the employer.
- 7.2 Each employer shall establish written procedures covering all phases of certification as specified in paragraph 5 - REQUIREMENTS.
- 7.3 Certification of NDT Level I and Level II personnel shall be based on demonstration of satisfactory qualification as determined by procedures outlined in paragraph 6 - EXAMINATION.
- 7.4 Records of qualification identifying qualified NDT Level I and NDT Level II personnel and complete examination records shall be maintained by the employer so long as the certification is in effect.
- 7.5 Certification of an NDT Level III individual shall be based upon his qualifications as defined in paragraph 4.1.c - LEVELS OF QUALIFICATION, and the applicable supplementary document.

7.6 When requested, the employer shall furnish a written statement verifying the qualifications of any NDT Level III individual.

7.7 At the option of the employer, an outside agency may be engaged to provide NDT Level III services. In such instances, the responsibility of certification must be retained by the employer utilizing outside services.

8. RECERTIFICATION

8.1 All NDT Level I and NDT Level II nondestructive test personnel shall be re-examined and/or recertified at periodic intervals. The period and basis of recertification shall be specified in the written procedure.

8.2 NDT personnel may be re-examined and have their certification extended or revoked any time at the discretion of the employer.

9. TERMINATION

9.1 All certifications shall be automatically terminated when a change of employer occurs.

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No. SNT-TC-1A
1966**

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Interpreting SNT-TC-1A
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**A Guide to
Personnel Qualification and Certification**
by
George C. Wheeler

**ASNT Standard for Qualification and Certification
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Nondestructive Testing Personnel
ANSI/ASNT CP-189-1995**

**ASNT Central Certification Program
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