

Interpreting

SNT-TC-1A

ninth edition

Interpretations from 1976 through 2011.



The American Society for Nondestructive Testing

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ASNT Mission Statement:

ASNT exists to create a safer world by promoting the profession and technologies of nondestructive testing.

Introduction

The *SNT-TC-IA* Interpretation Panel was established to respond to written inquiries about *Recommended Practice No. SNT-TC-IA, Personnel Qualification and Certification in Nondestructive Testing*.

Following are responses by the panel to inquiries submitted from 1976 through 2011. The responses clarify the intent of ASNT's Technical and Education Council and the recommendations of *SNT-TC-IA*.

Inquiries are numbered to include the year of the inquiry and always refer to the edition of *SNT-TC-IA* in effect in that year, unless otherwise stated in the question. New editions of *SNT-TC-IA* were published in these years: 1968, 1975, 1980, 1984, 1988, 1992, 1996, 2001, 2007 (2006 edition), and 2011.

Users of *SNT-TC-IA* are reminded that the document is intended as a guideline for employers to establish their own written practices for the qualification and certification of their nondestructive testing personnel.

The responses of the *SNT-TC-IA* Interpretation Panel are clarifications of

intent and are subject to the statement of "Scope" in each edition of *SNT-TC-IA*, such as the 1980 edition, Paragraph 1.4, "It is recognized that these guidelines may not be appropriate for certain employer's circumstances and/or applications. In developing a written practice as required in Paragraph 5, the employer shall review the detailed recommendations presented herein and shall modify them as necessary to meet particular needs."

Guidelines for Inquiry Preparation

The following guidelines for preparing an inquiry to the panel will expedite consideration and response to the inquirer. Each inquiry should be limited to a single recommendation of *SNT-TC-IA*. Inquiries concerning multiple recommendations of *SNT-TC-IA* or unrelated subjects may be returned for further clarification.

The specific question to be answered by the panel should be distinctly set apart from the body of the letter and in a condensed, precise, question format, omitting superfluous background

information and, if possible, asked in such a manner that a "yes" or "no" (with a short explanation) would be an acceptable reply.

The background explanation for the question can be prepared separately from the question. It should state the purpose of the inquiry, which could be to obtain a clarification of the document's recommendations or the intent of ASNT's Technical and Education Council; provide concisely the information needed for the panel's understanding of the inquiry and include references to applicable paragraphs of *SNT-TC-IA*, including date of edition. Sometimes it helps the panel members' understanding if the inquirer includes—set aside from the body of the letter—a "proposed response" at the end of the letter. Do not solicit from the panel an opinion or interpretation of an employer's written practice, nor of another party's opinion of an employer's written practice.

Inquiries should be sent to the attention of the Chair of the *SNT-TC-IA* Interpretation Panel, ASNT, Technical Services Department, 1711 Arlingate Lane, PO Box 28518, Columbus, OH 43228-0518.

Inquiry 76-1

Table 6.2.1A contains the statement “Credit for experience may be gained simultaneously in two or more disciplines. The candidate must spend at least 25 percent of his work time on each discipline for which experience is being claimed.” Our question is this: Over what time period does the term “simultaneously” apply?

Response

The employer’s written practice should specify the time period over which simultaneous experience shall be credited.

Inquiry 76-2

1. For requalification of Level I and II NDT personnel, does Paragraph 6.2.1 imply that you must keep continuous records by the hour showing that the individual has continuously spent at least 25 percent of his work time working in each method to which qualified?
2. Because of the 25 percent used in the note to Table 6.2.1A, it has been implied that an individual at maximum could be qualified in only four methods and this would be true only if he could show that exactly 25 percent of his work time was spent in each of four methods. Was this the intent of *SNT-TC-IA*?

Response

1. No. Table 6.2.1A applies only to initial experience required for qualification; it is not applicable to requalification.
2. No. The candidate may be qualified in as many methods as desired. The 25 percent work time experience only applies to the work time experience required for initial qualification in each level for each method. The 25 percent is not applicable and is not required for the individual to remain qualified in a particular method at a specific qualification level.

General Comments

Paragraph 6.2.1, like the rest of *SNT-TC-IA*, is only a guide. The employer’s written practice should detail all such requirements, which may differ from the recommendations of Paragraph 6.2.1.

Inquiry 76-3

Is it the intent of *SNT-TC-IA* that the Level I NDT persons described in

Paragraph 4.3(a) of the 1975 edition of this document be the same as the Level I individual described in the *SNT-TC-IA* (1968 edition) Paragraph 4.1(a) with both having the same capabilities?

Response

Yes. The changes in wording between the 1975 and the 1968 versions of *SNT-TC-IA*, insofar as the duties and capabilities of Level I personnel are concerned, were intended only to clarify the intent of the document. None of these changes in wording were intended as substantive changes.

Inquiry 76-4

Paragraph 1.1 of *SNT-TC-IA* refers to individuals who “perform, witness, monitor or evaluate” nondestructive tests. Is it intended that individuals whose principal functions are to witness, monitor or evaluate nondestructive tests be qualified in the same manner as those whose principal function is to perform nondestructive tests?

Response

It is intended that the employer designate through the written practice as recommended in Paragraph 5 specific jobs that require knowledge of the technical principles of nondestructive testing. The employer should test the statement of Paragraph 1.1, “... personnel whose specific jobs require appropriate knowledge of the technical principles underlying the nondestructive tests they perform, witness, monitor or evaluate,” against the specific job elements of the personnel in question in order to establish whether or not the specific job requires knowledge of nondestructive testing.

Inquiry 76-5

In accordance with *SNT-TC-IA* (1975 edition), may a Level I NDT person who has been trained, qualified and certified in accordance with *SNT-TC-IA* (1975 edition) be the sole person to perform, evaluate and sign for final acceptance of NDT examinations in accordance with written procedures and acceptance standards with occasional surveillance and guidance from a Level II or III?

Response

Yes. The intent in *SNT-TC-IA* is that the Level I person may perform the above functions provided they are in accordance with written procedures and so documented in the employer’s written practice.

Inquiry 77-1

1. Is it intended that the 1975 edition of *SNT-TC-IA* including all recommendations therein completely replace prior editions of *SNT-TC-IA*?
2. Is it intended that personnel qualified and certified as recommended in the 1975 edition of *SNT-TC-IA* be considered equivalent to those qualified and certified as recommended in previous editions of *SNT-TC-IA*?

Response

The answer is yes to both parts of the inquiry.

Inquiry 77-3

With respect to Paragraphs 9.4 and 9.5 of *SNT-TC-IA*:

1. Is it the intent to restrict an employer to engage only Level III services from an outside agency or may Level I and Level II services also be utilized?
2. Is it intended in Paragraph 9.5 that an employer may subcontract training, examination and certification for all levels, provided the employer’s audit results are found to be satisfactory?
3. Paragraph 9.1 states that the certification of all levels is the responsibility of the employer. Paragraph 9.5 recognizes the use of outside certification services. May an employer subcontract nondestructive testing to an outside organization utilizing that organization’s certifications for Levels I, II and III, provided the results of the employer’s audit of that organization are satisfactory? Must the employer personally certify NDT personnel or may he accept the outside organization’s certification?

Response

1. It is intended that Level III services may be obtained from an outside agency for the purpose of training and examining NDT personnel. It is beyond the scope of *SNT-TC-IA* to recommend whether or not outside inspection services should be obtained. It is definitely not intended that the employer be restricted from utilizing any outside NDT services.
2. The intent of Paragraph 9.5 is to emphasize the responsibility of the employer to assure by audit that any and all parts of purchased services attendant to qualification and

certification of NDT personnel are within the same guidelines that the employer himself would follow in accordance with his written practice.

3. The intent underlying Paragraph 9.1 is fundamental. When outside Level III services are used for the purpose of qualifying and certifying personnel, it is intended that the employer utilizing such services be responsible for assuring that those services are properly performed and audited. Whether or not the employer uses outside Level III services for training and examining his NDT personnel, the total responsibility for certification of all levels rests with the employer of the individuals.

SNT-TC-1A only provides guidelines for qualification and certification of NDT personnel. Outside services referred to in Paragraph 9 are those intended to be used by an employer only for the purposes of training, examining or otherwise qualifying individuals directly employed by the employer.

When the performance of NDT is subcontracted to an outside organization and the outside organization is the direct employer of the individual performing NDT, the outside organization is the “employer” in terms of *SNT-TC-1A*. Whether the outside organization is properly qualifying and certifying its NDT personnel can only be determined by the purchaser of such outside services and how such determination is made is a contractual matter between the purchaser and the outside organization.

Inquiry 77-4

May the experience requirements expressed as “certified NDT Level II” in Paragraph 6.3.1(b), (c) and (d) of the 1975 edition of *SNT-TC-1A* be considered to include experience gained in “an assignment comparable to that of an NDT Level II” [as stated in Paragraph 6.3.2(a)] in determining the prerequisite requirements of a candidate for certification as a Level III? If so, may this acceptance of experience in “an assignment comparable to” be extended to include similar subparagraphs under Paragraph 6.2.5 of the earlier editions of *SNT-TC-1A*?

Response

Paragraph 6.2 of the 1975 edition of *SNT-TC-1A* states, “Documented training and/or experience gained in positions and activities equivalent to those of Level II or Level III prior to establishment of the employer’s written practice and a

certification program in accordance with this document shall be considered as satisfying the criteria of Paragraph 6.2.1 and 6.3.” If documentation was not produced during such prior experience, an affidavit or other suitable testimony regarding such experience may be evaluated by the employer to aid in determining equivalence. This response applies to the 1975 edition and all prior editions of *SNT-TC-1A*. See Inquiry 77-1.

Inquiry 77-5

With reference to Paragraph 8.5 of the 1975 edition of *SNT-TC-1A*, is it intended to limit the written specific examination to a closed book examination, without access to codes, specifications and/or procedures?

Response

It is intended that codes, specifications and/or procedures are “necessary data” under Paragraph 8.5 of the 1975 edition of *SNT-TC-1A*, provided that examination questions are asked that require reference to such data and that such data cannot be used to answer questions related to other closed book portions of the examination.

Inquiry 77-6

1. Is it the intent of *SNT-TC-1A* that Level I, II and III individuals certified to the recommendations of the 1968 edition meet the recommendations for certification in the 1975 edition?
2. If certification is transferred from the 1968 edition to the 1975 edition recommendations, which recommendations prevail regarding recertification?

Response

1. It is intended that individuals certified according to the recommendations of earlier editions of *SNT-TC-1A* meet the recommendations for certification in the 1975 edition.
2. The 1975 edition recommendations prevail regarding recertification. See also Inquiry 78-2.

Inquiry 77-8

Level III personnel certified by ASNT do not receive examination grades. Paragraph 8.6 of *SNT-TC-1A* recommends arriving at a composite grade. How can this be accomplished since ASNT only supplies examination results in terms of pass or fail?

Response

Published in *Materials Evaluation*, May 1978, page 21, is the “ASNT Position Paper on the Use of *SNT-TC-1A* and the ASNT Level III Certification Program.” Under the heading “Certification Options” is the following:

[The employer can] Incorporate into his written practice acceptance of ASNT Level III certification as permitted in 9.4 of *SNT-TC-1A* for meeting any or all examination requirements of 8.5.3 (general, specific and practical) and assigning grading weight factors based on satisfactory performance, in accordance with 8.6.3 and 8.6.4.

Inquiry 77-10

What is the intent regarding employers’ attempts to verify an individual’s experience and performance with past employers in order to maintain the documentation recommended in Paragraph 9.6.1?

Response

The specific documentation to be furnished by new employees and past employers and the means for obtaining documentation is referenced in Paragraphs 9.6 and 10.2 of *SNT-TC-1A*. Details should be included in the employer’s written practice.

General Comments

As published above and in *Materials Evaluation*, October 1977, in response to Inquiry 77-4, “If documentation was not produced during ... prior experience, an affidavit or other suitable testimony regarding such experience may be evaluated by the employer ...” While Inquiry 77-4 was related to a somewhat different matter, the intent behind the response applies equally to this inquiry (77-10).

Inquiry 77-12

1. Is it intended that an employer may use more than one outside agency for providing Level III services?
2. Is it intended that an employer may use Level III individuals in his direct employment and also use an outside agency for Level III services?
3. Is it intended that certification examinations may be administered without direct supervision and monitoring?

Response

1. There is no intent to restrict the number of outside agencies from which an employer could use Level III services.
2. Yes, both the above and this situation may be used under circumstances as described in the employer's written practice.
3. It is not intended that unsupervised examinations be administered.

Inquiry 77-13

Regarding Paragraph 8.5.3(a) of *SNT-TC-1A*, is it intended that the "30 questions from the NDT Level II questions for other applicable NDT methods" be selected from and represent every test discipline listed in Paragraph 8.5.2?

Response

No, it is intended that the examiner select the questions applicable or appropriate to the product requirements of the particular case. This is a specific recommendation for examining Level IIIs and in no manner conflicts with the Level III qualifications of Paragraph 4.3(c) of *SNT-TC-1A*.

Inquiry 78-1

If a Level II examination is administered to a Level I individual, is there a need, when that individual is eligible for Level II certification, to readminister the same Level II examination provided that all other criteria, for example, education, training and experience, have been satisfied?

Response

It is not intended that the individual should be reexamined, provided the original Level II examination was passed and all applicable requirements of the employer's written practice have been met according to Paragraph 8.1 of *SNT-TC-1A*.

Inquiry 78-2

See Inquiry 77-6, as published above and in *Materials Evaluation*, October 1977. In order to clarify the response, is it intended that Level I, II and III individuals who have been certified to the recommendation of the 1968 edition automatically meet the recommendations for certification in the 1975 edition?

Since the training hours were increased in the 1975 edition for certain level and discipline combinations above those recommended in the 1968 edition, is

additional training and reexamination required to upgrade these individuals?

Response

It is the intent that individuals certified in accordance with the recommendations of the 1968 edition can be automatically certified to the recommendations of the 1975 edition without additional training or experience. For recertification, it is intended that individuals should meet the guidelines of the 1975 edition as reflected in the employer's written practice.

Inquiry 78-3

With reference to the note in Table 6.2.1A, "Credit for experience may be gained simultaneously in two or more disciplines. The candidate must spend at least 25 percent of his work time on each discipline for which experience is being claimed," is it intended that an individual being qualified in only one method could obtain the work time experience in 25 percent of the times tabulated in Table 6.2.1A?

Response

No, an individual being qualified in only one method should spend at least 25 percent of his work time in that method and should obtain the total work time experience as recommended in consecutive months as though the remainder of his work time was spent in qualifying for other NDT methods simultaneously.

Inquiry 78-4

1. Regarding Paragraph 10.2 of *SNT-TC-1A*, does "... based on examination ..." refer to examinations administered during prior employment or does it refer to new examinations to be administered by the new employer?
2. An individual can provide evidence of prior certification per Paragraph 10.2(a), but does not meet either Paragraphs 10.2(b) or 10.2(c) which recommend that the individual was working in the capacity to which he had been certified and is being recertified within six months of his termination. What should be the basis of qualification for such an individual?

Response

1. It is intended that the examination referred to in Paragraph 10.2 be administered by the new employer.

2. It is intended that an individual who has neither worked in the capacity to which previously certified in the past six months nor is being recertified within six months should have additional training and experience prior to recertification. The employer's written practice should detail such provisions.

Inquiry 78-6

Is it the intent of *SNT-TC-1A* to recommend that the percented weight factors of Paragraph 8.6.3 may be applied based upon differing job requirements of individual candidates or should they be applied equally to all individuals within a particular level?

Response

Percentile weight factors should be within the ranges shown in *SNT-TC-1A*, Paragraph 8.6.3. The specific percentile weight factors used should be clearly stated in the employer's written practice and should be based on the particular needs of the employer. The same weight factors should be used uniformly for all the employer's personnel seeking certification for given job requirements. However, the employer may change or modify the weight factors for different job requirements within a single level provided they remain within the ranges recommended in Paragraph 8.6.3.

Inquiry 78-7

1. Should personnel who operate digital thickness measurement equipment be qualified and certified?
2. To what level should such personnel be certified?
3. Does ASNT anticipate a change in *SNT-TC-1A* that would provide specific recommendations for qualifying and certifying such personnel?

Response

1. Whether any NDT personnel should be certified depends solely upon the needs of the employer and the requirements of the employer's customers or clientele.
2. Likewise, the level to which personnel should be certified depends upon the same factors as in [1.] above. Note that Paragraph 4.1 of *SNT-TC-1A* provides for subdivision within the levels as needed.
3. Paragraph 1.4 and Paragraph 4.1 of *SNT-TC-1A* are intended to provide

the employer with adequate flexibility to accommodate a variety of special needs as documented in the written practice. While the recommended training course outline of *SNT-TC-1A* does not specifically address digital thickness measurement, the principles of pulse-echo techniques are those involved. The training course outline does not provide for instruction in the employer's specific equipment uses and, as with the remainder of *SNT-TC-1A*, the training course outline should be modified, if necessary, to meet employers' specific needs.

Inquiry 78-9

Is it intended that personnel currently certified as NDT Level III within the guidelines of *SNT-TC-1A* who also regularly perform Level II functions be qualified as recommended in Paragraphs 8.2, 8.5.2, 8.6 and 9.7?

Response

It is the opinion of the Interpretation Panel that personnel currently certified as Level III may regularly perform Level II functions without specifically being qualified as Level II as recommended in Paragraph 8.2, 8.5.2 and 8.6 of *SNT-TC-1A*. However, as recommended in Paragraph 9.7, all levels should be periodically recertified.

General Comments

Implicit in the definitions of Levels I, II and III as outlined in Paragraphs 4.3(a), 4.3(b) and 4.3(c) is the concept that the qualifications for Level III equal and exceed those of Level II. The employer must be satisfied with the proficiency of any individual at any level to handle work tasks. *SNT-TC-1A* is not intended for use to determine an individual's proficiency. It is intended as a guideline to establish qualifications.

Inquiry 78-10

1. When an employee returns to work for a former employer where he was certified, may the employee's certification(s) be reinstated without examination if the provisions of Paragraphs 10.2(b) and 10.2(c) are met?
2. If an employee has been continuously working for another employer certified in the same capacities, may his certification(s) be reinstated for the remainder of

the original three-year period of certification in accordance with Paragraph 9.7?

Response

1. The provisions of Paragraph 10.2 apply only to a new employer. For this part of the inquiry, the provisions of Paragraph 9.7.3 would prevail.
2. For this part of the inquiry, the receiving employer would be considered a new employer and the provisions of Paragraph 10.2 would apply. If, however, the employee in question was previously employed by the receiving employer, Paragraph 9.7.3 would prevail.

General Comments

The principle behind "evidence of continuing satisfactory performance" in Paragraph 9.7.1(a) applies to employees originally certified by, and in continuous employment of, one employer. It is not envisioned that a new employer should prudently accept "evidence of continuing satisfactory performance" from a previous employer. Note that Paragraph 10.2 recommends recertification by examination of an employee by a new employer even if the conditions of 10.2(a), 10.2(b) and 10.2(c) are met to the new employer's satisfaction. The employer's rules covering the duration of interrupted service (Paragraph 9.7.3) should bear a reasonable relationship to the recommendations in Paragraph 10.2. However, in the case of interrupted service, the employer has direct knowledge of the employee's prior performance and can best judge the need for reexamination as a function of duration of interrupted service.

Inquiry 78-11

1. Regarding Paragraph 8.2(a1) of *SNT-TC-1A*, is it intended that the personnel referred to in the statement, "The examination shall be administered by qualified personnel ..., " be qualified medical personnel or may a certified Level III person administer the near-distance vision acuity examination when a standard Jaeger test chart is used? It would appear that the qualifications necessary to administer such examinations would only include the capability to read, to identify the Jaeger chart and the appropriate parts thereof and to be able to measure and maintain the 12 in. required reading distance.

2. Regarding Paragraph 8.2(a2), is it intended that the statement, "... as demonstrated by the practical examinations or test performance," refers to the practical examination of Paragraph 8.2(d) or does it refer to a special standardized eye test for color vision?

Response

1. It is intended that Level III personnel be allowed to administer the near-distance vision acuity examination using the Jaeger chart. However, if the employer elects to use other methods of vision examination or the employer requires additional physical requirements as referred to in Paragraph 8.2(a3), it may be necessary to use personnel with other specialized qualifications to administer examinations for such additional requirements. The employer should include details of specific physical requirements and the qualifications required of examiners in the written practice.
2. It is intended that the practical examination referred to in Paragraph 8.2(a2) is that of Paragraph 8.2(d) and that such practical examination include checkpoints as appropriate to verify that the candidate's color vision capabilities are adequate to satisfy the specific needs imposed by the NDT method in question, the employer's test equipment, procedures and products.

Inquiry 79-1

In maintaining records, if an individual is working simultaneously in more than one method, should the records reflect the total time spent for each method or should the time be divided proportionately for each of the methods? For example, if an individual spent 50 percent of his time on ultrasonic testing and 50 percent of his time on radiographic testing for a period of nine months, should the record show experience in ultrasonic testing of four and one-half months or nine months?

Response

It is intended that the employer's written practice should include details of maintaining records. It is intended that records should reflect the facts of each individual's work time with regard to the amount of time spent on each method and the periods of time during which the work was performed.

Inquiry 79-2

Since NDT Level III general examination questions in some methods are available from ASNT (*Questions and Answers for Qualifying NDT Level III Personnel*, October 1977), is it intended that the Level III questions referred to in Paragraphs 8.4 and 8.5.3(a) be selected from those published by ASNT?

Response

It is intended that the recommended 30 questions devised by the examiner for the appropriate method [Paragraph 8.5.3(a)] be devised or selected as appropriate to the degree required by the employer's written practice. As with all questions and answers provided by ASNT, they are suggested as guidelines and supplied as an aid to employers in preparing examinations. It is intended that the provisions of Paragraph 8.4 be superseded when questions of a character unique to Level III qualifications as delineated in Paragraph 4.3(c) are devised or selected by the employer for use in the Level III general examination. The additional 30 questions from Level II questions for other applicable NDT methods as recommended in Paragraph 8.5.3(a) are intended to be selected from methods other than that for which the candidate is being examined. It is intended that the employer use such questions to determine that the candidate has sufficient knowledge of other NDT methods that might be applicable to the employer's particular circumstances. For example, it could be appropriate that a candidate being examined for Level III qualification in a particular method be required to demonstrate basic knowledge in one or more other methods in order to "designate the particular test method and technique to be used." See Paragraph 4.3(c).

Inquiry 79-4

1. In Paragraph 8.2(a1), reference is made to a "standard Jaeger test chart." Of several reading cards available, which is considered standard?
2. In Paragraph 8.2(a1), the recommended distance for reading Jaeger Number 2 letters is "not less than 12 in. (30.5 cm)." On the reading card currently available from ASNT, the "designated distance in decimeters" for J2 letters is 5 dm or approximately 19.7 in. Is it intended that the near-distance vision acuity requirements be reduced by such a significant factor?

Response

1. The reading card intended to be considered standard is currently available from ASNT and was previously supplied by Bausch & Lomb. Bausch & Lomb no longer supplies such cards, but those bearing the title, *Reading Card (Metric)*, with the notation at the bottom of the card reading, "The above letters are Snellen sizes at the designated distance in decimeters, with Jaeger notations at right," as previously supplied by Bausch & Lomb are equivalent to the card currently available from ASNT. Other cards bearing equivalent type size and body are also intended to be used.
2. The intent in Paragraph 8.2(a1) was to recommend a minimum distance. The employer's written practice should state the near-distance vision acuity requirements for the particular circumstances of the employer.

Inquiry 79-13

If an employee performs NDT to multiple codes, specifications and acceptance standards, is it necessary to include questions relating to each code, specification or acceptance standard in this Specific examination?

Paragraph 9.6.1(c) requires records of educational background to be included in personnel records. Is information supplied by the employee (i.e., such as a résumé or employment application) satisfactory evidence of educational accomplishments or is conclusive evidence (i.e., such as a copy of a diploma or transcript) required for verification?

Response

It is the intent of Paragraph 8.2(c2) that the Specific examination cover all codes, specifications and acceptance standards applicable to the employee's activities.

See also Inquiry 77-4 and Inquiry 77-10.

Inquiries 79-14 and 79-15

Is it intended per *SNT-TC-1A* (1975 edition) that the time spent in a laboratory exercise during a long term NDT course be considered the only qualifying work time experience?

May the laboratory time be given any credit at all as "work time experience" to satisfy all the requirements in Table 6.2.1A?

Response

It is not intended that laboratory experience in an educational program be directly applied to the work time experience. Laboratory experience is not necessarily applicable to the employer's product or to the specific codes, standards or specifications in use. However, in recognition of the benefits accruing from laboratory experience, the employer may include such consideration for adjustment to the work experience in his written practice. Should the employer decide to do so, he should thoroughly evaluate the curriculum to determine its applicability.

Inquiry 80-2

In reference to the practical examination, there are several approaches that may be taken. For example, grades on check points could be given as 1 (correct) or 0 (incorrect) or could be given in a graduated fashion, say 0 to 5, depending on the correctness and efficiency of the application. Which approach is correct? Could a questionnaire for which written answers would be prepared as an alternative method of grading be used?

Response

Please refer to Paragraphs 8.5.1(c) and 9.6.1(f). Either of the proposed grading methods is permissible depending on the needs of the employer. Other approaches may also be taken. The approach which meets the needs of the employer should be described in his written practice and followed for the practical examination. The last technique proposing a questionnaire for which written answers would be prepared would fall more appropriately under the Specific examination category.

Inquiry 80-3

A candidate spends 50 percent of his time performing radiography, 25 percent performing magnetic particle examinations and the remaining 25 percent performing liquid penetrant examinations. At the end of a one-month period, assuming a 144-hour month, is Method A or Method B a correct computation of working time experience for certification to a Level I rating?

Method A: The candidate claims work time experience of 144 hours for each of the three methods.

Method B: The candidate claims work time experience of 72, 36 and 36 hours for radiography, magnetic particle and liquid penetrant, respectively.

Response

These questions have been addressed in Inquiries 76-1, 76-2 and 78-3, which were published above and in *Materials Evaluation* in October 1977 and October 1978. As further clarification, the method described in Method A is that intended by the document. In other words, the examiner may claim full-time for all the NDT methods in which he works simultaneously. It is not intended he claim time for work hours spent in work other than nondestructive testing.

Inquiry 80-4

NDT examiners in our employ who perform examinations using liquid penetrant use only the visible dye, solvent removable, penetrant technique. Since our examiners do not have need to be qualified in the other liquid penetrant techniques, is it permissible to modify the number of general and specific questions as well as the hours of training and work experience to satisfy requirements of *SNT-TC-1A* for Level I and Level II examiners?

Response

Please refer to Inquiry 76-2, published above and in *Materials Evaluation* in October 1977 and Inquiry 77-13 published above and in *Materials Evaluation* in October 1978. It is the intent that *SNT-TC-1A* is a recommended practice and that it is a guideline which should be modified by the employer as necessary to meet his particular needs. The employer should determine his needs, determine the necessary qualifications of his examiners to meet those needs and describe those in his written practice.

Inquiry 80-6

1. How may we qualify supervisory personnel in accordance with *SNT-TC-1A*? Supervisory personnel would include quality control engineers in plants doing surveillance-type inspection.
2. Table 6.2.1A for *SNT-TC-1A* provides: "credit for experience may be gained simultaneously in two or more disciplines. The candidate must spend at least 25 percent of this work time on each discipline for which experience is being claimed." Does this statement mean (as it regards Level I PT) that if the candidate is already a qualified Level I or Level II radiographer, the one month work experience can be reduced to 44 hours?

Response

1. This inquiry is similar to Inquiry 76-4 which was answered above and in the October 1978 issue of *Materials Evaluation*. It must again be emphasized that *SNT-TC-1A* is a guideline to aid an employer in certifying his employees and the guidelines combined in that document should be modified to meet the employer needs.
2. It is the intent of this statement that a candidate may take credit for work performed in two methods simultaneously because of the knowledge interchange factor believed to be present in such activities. It is not intended that an examiner certified in one method could at some later time reduce the requirements for certification in another method except as defined in the employer's written practice.

Inquiry 80-7

In the NDT Level II practical examination, 8.5.2(c), is it intended that the NDT Level II candidate demonstrate proficiency in all phases of the NDT operation (i.e., set up, calibration, inspection and interpretation)?

Response

Yes, it is intended that the Level II demonstrate proficiency in all phases of the operation for which the candidate is being certified. The employer's written practice should define the duties and needed knowledge.

Inquiry 80-8

1. May an employer deviate from the guidelines to meet his specific needs?
2. Is our company's specific written practice acceptable?

Response

1. Yes, in accordance with Paragraph 1.4 of *SNT-TC-1A*, the employer should modify the guidelines to meet his needs.
2. It is against ASNT policy to judge the applicability of company documents. As a general comment, it is the employer's prerogative to establish his criteria for certification. It is then his customer's prerogative to accept or reject those criteria.

Inquiry 80-9

Is there an acceptable method by which a Level III may be certified by a new employer on the basis of Level III certification examinations administered by the former employer without examination?

Response

As outlined in Paragraph 8.5.4, an employer may waive examination for an NDT Level III based on the candidate's demonstrated and documented ability, achievement, experience and education as defined in Paragraph 4.3(c) and 6.3. However, if the new employer desires that the certification be based on examination, then the employer must reexamine the candidate or obtain copies of the examinations taken by the candidate at the previous employer. This step is necessary to ensure the quality of the examination and to meet the documentation needs of Paragraph 9.6.1(f).

Inquiry 80-12

1. If a candidate does not spend 25 percent of his time in the method in a given period, e.g., one month, can he accumulate one month's credit over a longer period, e.g., two months and claim one month's experience?
2. What constitutes an NDT-related activity that may be identified in the employer's written practice? What percentage of time may be NDT related?
3. Can work experience prior to and in excess of the Level I requirements be applied to Level II experience requirements?
4. May documented experience at a level equivalent to NDT Level II in a company without a certification program be used by a new employer to fulfill experience requirements for Level II?

Response

1. No, the intent of the note to Table 6.2.1A (6.3.1) is that work time experience claimed for a specific period should be accumulated in that period. For example, to claim one month work time experience, the candidate should spend at least 44 hours (one fourth of 175) in the method and the remaining work time (75 percent) of that month in NDT-related activities.
2. As stated in the note to Table 6.3.1 (1980 edition), the employer should

define NDT-related activities. It is also intended that all work time experience claimed should be in NDT or its related activities.

3. Note (1) to Table 6.3.1 (1980 edition) and Table 6.2.1A (1975 edition) indicate that the total NDT experience of the candidate may be applied to the requirements for Level II.
4. Yes, provided the experience is documented to the requirements of the new employer's written practice and the candidate passes the necessary examinations.

General Comments

Please note that experience required for Level II includes work at both trainee and Level I levels. Work experience claimed for Level II should meet the experience required at these levels.

Inquiry 80-14

There are certain differences in the 1975 and 1980 editions of *SNT-TC-1A*. Is it the intent that individuals qualified to the 1975 edition be certified as qualified to the 1980 edition without reexamination (where examinations have been used as the basis for qualification) when an organization chooses to upgrade their written practice to the 1980 edition?

Response

Yes, it is the intent that individuals certified to the 1975 edition, whether by examination or by waiver in accordance with Paragraph 8.5.4 (1975 edition), are automatically certified to the 1980 edition when the employer chooses to upgrade his written practice to the 1980 edition. Subsequent recertifications should be to the guidelines of the later edition.

Inquiry 80-15

What is the definition of "annual" as used in *SNT-TC-1A* (1980 edition), Paragraph 8.1.1(4), "The examination should be administered on an annual basis"?

Response

The intent of this statement is that the examination should be administered every year with the interval between examinations not to exceed 12 months from the month of the examination.

Inquiry 81-1

Is it the intent of Paragraph 8.2(a2) that individuals demonstrate the

capability of distinguishing and differentiating contrast between colors on an annual basis or only upon certification and/or recertification?

Response

The individual should demonstrate this capability upon original certification and upon recertification by practical examination or work performance. Normally, recertification occurs at three-year intervals.

Inquiry 81-3

The ASNT examinations for Level III are referred to as "General" and "Practical." In the 1980 edition, these are "Basic" and "Method." May I assume this is a change in terminology and that the examinations are equivalent?

Response

The ASNT Level III examinations are titled "Basic" and "Method" as are the designated examinations in *SNT-TC-1A* (1980 edition). It is intended that the ASNT Level III examinations satisfy the "General" and "Practical" examinations of *SNT-TC-1A* (1975 edition).

Inquiry 81-5

Do the requirements identified in Table 6.2.1A (1975 edition) include (a) required performance of the test method by personnel for certification or (b) personnel are to be employed where the test method is being utilized?

Response

The intent of *SNT-TC-1A* is clear. Actual performance of work in the method is required for that time to be claimed as work experience.

Inquiry 81-9

1. May the president of an NDT company appoint himself as a Level III provided he is qualified?
2. May a Level III qualify NDT personnel for another company?

Response

1. An employer may certify any employee as Level III provided the individual has the qualifications required by the employer's written practice.
2. Yes, he may attest to the qualifications of an individual in another company. However, the individual must be certified by his

own employer, not the aforementioned Level III.

Inquiry 81-12

Paragraph 9.6.1(f) (1975 edition) states that qualification records should include "copies of current examinations and of grades for all previous examinations and ..." Does the phrase "grades for all previous examinations" imply grades for examinations by the present employer and/or previous employers and outside agencies?

Response

Paragraph 9.6.1(f) (1975 edition) applies to examinations administered by the present employer.

Inquiry 81-13

Does on-the-job training in lieu of classroom training satisfy the requirement for organized training?

Response

Paragraph 7.1 (1980 edition) states that the personnel "should complete sufficient organized training to become thoroughly familiar with the principles and practices of the specified test method ..." It is intended that the training be organized into a definite training program although the form of that training is not specified.

Inquiry 81-15

Paragraph 8.1.1.2 states, "The examination should demonstrate the capability of distinguishing and differentiating contrast between colors used in the method." Does the Ishihara color chart satisfy this requirement?

Response

Any means used to determine the individual's capabilities of color differentiation and distinguishing: (1) which actually accomplishes the determination and (2) which is satisfactory to the employer and its customer should fulfill this requirement.

Inquiry 81-16

Is it the intent of *SNT-TC-1A* that employers may prorate classroom training hour requirements for personnel with an education level between the educational levels defined in the document?

Response

Table 6.3.1 and Paragraph 6.3.2 (1980 edition) prorate classroom training hours based on education levels and experience for Levels I, II and III certification. Prorating between those specified is a logical progression well within the intent of the 1975 and 1980 editions.

Inquiry 82-1

1. Does Paragraph 4.1 (1975 edition) permit qualification and certification under restrictive conditions, i.e., NDT Level II-R or Level II-S (restricted or surveillance)?
2. Do these subdivided levels referenced in Paragraph 4.1 need to comply with education, training and experience requirements in Paragraph 6 and Table 6.2.1(a)?

Response

1. Paragraph 4.1 permits subdivision of the basic levels of qualification as needed to fit the employer's needs. The scope of these subdivisions may be greater or less than the guidelines of *SNT-TC-IA*.
2. Education, training and experience guidelines of Paragraph 6 and Table 6.2.1(a) should be modified as appropriate to meet the needs of the subdivisions in accordance with Paragraph 4.1.

Inquiry 82-3

Do the passing grades for Level III examinations of the 1980 edition (i.e., 80 percent composite and 70 percent minimum on each examination) satisfy the requirements of the 1975 edition (i.e., 90 percent and 80 percent, respectively)?

Response

The passing grades for Level III examinations in the 1975 edition are based on the use of Level II questions. Grades for the 1980 edition are based on the use of Level III questions and are considered to meet the guidelines of the 1975 edition.

Inquiry 82-4

Table 6.3.1 (1980 edition) requires experience in excess of one month in certain circumstances. May credit for one of those multimonth "specific periods" be given if the candidate spends at least 25 percent of the applicable period in the method and the remaining work time

(75 percent) in that period in NDT-related activities?

Example: Three months' work time experience credited when a total of at least 132 hours are spent in penetrant testing during a three-calendar-month period while the remaining work time experience (75 percent) in that period is spent in NDT-related activities.

Response

The work time experience guidelines of Table 6.2.1(a) (1975 edition) and Table 6.3.1 (1980 edition) are total, accumulated work time experience levels. In accordance with Inquiry 76-1, the employer's written practice should specify the time period over which simultaneous experience shall be credited.

Inquiry 82-6

SNT-TC-IA (1975 edition), Section 8.5.3(a) states: "General Examination — Thirty questions devised by the examiner for the appropriate method, plus 30 questions from the NDT Level II questions for other applicable NDT methods, are to be answered."

1. For each NDT method, must each Level III general examination contain a minimum of 60 questions?
2. If Level III general examinations are administered in more than one method, is it permissible to not include the 30 Level II questions from other methods (i.e., general examinations consist of only 30 questions in method under consideration) and assume that the requirements of Section 8.5.3(a) have been satisfied?

Response

Paragraph 8.5.3 (1975 edition) states that each General Examination should comprise 60 questions, 30 for the appropriate method and 30 NDT Level II questions for other applicable NDT methods.

Inquiry 82-7

Who within a corporation is the employer as the term is used in *SNT-TC-IA*?

Response

No one *within* the corporation is the employer. The employer *is* the corporation as stated in Paragraph 2.1.5: "Employer — The corporate, private or public entity which employs personnel for wages, salary, fees or other

considerations." The employer's written practice should designate the Level III responsible for certification of Level I and II individuals and the person responsible for certification of Level III personnel.

Inquiry 83-1

Table 6.3.1 of *SNT-TC-IA* (1980 edition) specifies work time experience in months. Is it acceptable for the employer's written practice to express this time in hours based on 160 hours per month?

Response

It is allowable for an employer to define the number of hours that constitute a month within his written practice. Whether 160 hours is acceptable is a contractual matter between the employer and customer.

Inquiry 83-2

Has the intent of *SNT-TC-IA* been satisfied if the employer's written practice states in effect that failure to meet the requirements of Paragraphs 10.2(b) or 10.2(c) will necessitate additional training and/or experience as determined by the Level III examiner?

Response

This panel cannot comment on the adequacy of an individual written practice. However, according to Inquiry 78-4, the written practice should establish the basis for evaluating the amount of additional training and/or experience required by an individual not meeting the requirements of 10.2(b) or 10.2(c).

Inquiry 83-3

Is it the intent of Paragraph 8.1.4.4, *SNT-TC-IA* (1980 edition) that the individuals demonstrate the capability of distinguishing and differentiating contrast between colors on an annual basis or may this be demonstrated upon recertification?

Response

Per Inquiry 81-1, it is intended that an individual should demonstrate the capability of distinguishing and differentiating contrast between colors upon original certification and upon recertification by practical examination or work performance.

Inquiry 83-4

1. Can the nominated Level III examiner qualify other possible Level III candidates by examination?
2. Can any Level III examiner, nominated or not by the company, qualify a possible Level III candidate by examination?
3. Are Level III examiners under the grandfathering scheme accepted by ASNT in accordance with *SNT-TC-1A*?

Response

1. Yes.
2. No, not unless the Level III is nominated by the company and acting as its agent.
3. ASNT makes no differentiation between Level IIIs grandfathered in accordance with the initial ASNT program and those taking the ASNT examinations.

Inquiry 83-5

Is the intent of Paragraphs 8.1.3.2 and 8.3.3.2(c) of *SNT-TC-1A* (1980 edition) to require recertification of personnel when a new code, specification and/or standard is invoked by the employer?

Response

The Specific examinations should cover the codes, specifications and standards used by an employer at the time of examination. Immediate recertification of individuals based on the addition of new codes, specifications or standards would not be required unless deemed necessary by the employer. However, the examinations should be revised to reflect the new materials.

Inquiry 83-6

Does the Ishihara Color Perception Test fulfill the *SNT-TC-1A* (1980 edition) requirements for the physical examination in Paragraph 3.1.1.2 as applicable to radiographers?

Response

Yes, the Ishihara Color Perception Test is an accepted test to demonstrate the capability of distinguishing and differentiating contrast between colors.

Inquiry 83-7

1. In relation to the *SNT-TC-1A* definition of an "employer" and Paragraphs 5.1 and 9.1: Is a

company in compliance with *SNT-TC-1A* in certifying NDT personnel to its own written practice when those people are not the employees of the company but are paid their wages by an outside agency that does not have an established written practice?

2. And a related question: With the qualifying practice customarily based on documented past experience, would the previous certifications be valid when the practitioner has moved from site to site, qualifying in accordance with each company's written practice without having been directly employed, in terms of the *SNT-TC-1A* definition, by any of them?

Response

1. If the company defines with its written practice the mechanism for certifying the individuals not employed directly by the company, the answer is yes.
2. It is the responsibility of the employer to verify the validity of previously claimed certifications used to determine an individual's experience in accordance with the employer's written practice.

Inquiry 83-8

We desire to have a member of management for our NDT Level III who, by virtue of his or her job duties, will not have worked as a Level II. Clarification is needed relative to *SNT-TC-1A* (1980 edition), Paragraph 6.3.2.1, 6.3.2.2 or 6.3.2.3. The employee may also not have any previous experience in the particular discipline. The questions are:

1. How can a person become a Level III if they have not had a Level II assignment?
2. What types of other experiences could be counted for the Level II requirements?

Response

1. An individual may be given credit for work assignments comparable to that of an NDT Level II in the applicable test method.
2. The types of work assignments comparable to the Level II assignments should be defined by the employer in his written practice.

Inquiry 83-9

Enclosed please find the cover sheets for materials that are used in our

self-training program. Please advise if these materials are acceptable by ASNT as a home-study course.

Response

ASNT neither accepts nor rejects training course materials. The acceptability of any training course is a contractual decision between the parties involved.

Inquiry 83-10*

Please interpret the 25 percent rule for a trainee in one method who is also performing NDT in a method for which he is already qualified and certified.

Response

Note (2) of Table 6.3.1 in the 1980 edition of *SNT-TC-1A* applies only to initial simultaneous certification in two or more methods. Inquiry 78-3 states that an individual seeking certification in only one method must meet the total work experience hour requirement for that method even if any other work performed by an individual is NDT-related. Therefore, based upon the above information, an individual seeking to be certified and/or upgraded in only one method must meet the total experience hour requirement shown for that method in the employer's written practice.

**Withdrawn in June 1990. See Inquiry 89-3.*

Inquiry 83-11

1. Is it the intent of Paragraph 8.3.3 of the 1980 edition of *SNT-TC-1A* that an individual who is certified NDT Level III in the RT method by examination including a Basic, Method and Specific test needs to be administered only the Method and Specific tests when being certified for NDT Level III in the UT method?
2. Is it the intent of Paragraph 8.4.2 that a separate weighting schedule may be utilized that provides greater weighting values for the Method and Specific tests, for the situation described in [1.] above, than are used when the individual is administered Basic, Method and Specific tests for NDT Level III certification?

Response

1. Yes.
2. Paragraph 8.4.2 requires the employer to establish weight

factors or to use simple average grades that are uniformly applied to all individuals taking the same test. If your written practice does this, it is within the intent of *SNT-TC-1A*.

Inquiry 84-1

1. Considering the responses in ASNT Inquiry 77-1, 78-2 and 80-14 regarding recertification, it appears that the correct interpretation of *SNT-TC-1A* should be that the edition applicable to certification by examination should be the edition in effect at the time of examination. Is this interpretation correct?
2. Is it consistent with the intent of *SNT-TC-1A* that an employer's procedure for certification by examination contain wording that the "applicable year of issue (of *SNT-TC-1A*) will be the latest in effect at the time of examination"?

Response

1. Yes. Any or all of the editions could be referenced in the employer's written practice, depending on the specifications or codes to which the employer must conform in his business.
2. The key word in this question is "consistent." If "consistent" is intended to mean "compatible," the answer is yes. If the definition of "consistent" is taken to mean "holding always to the same principles or practice," then the answer is that *SNT-TC-1A* does not prohibit such application of reference in an employer's written practice. Clearly, the tests and examinations used by the employer for certification must reflect the editions referenced in the employer's written practice.

Inquiry 84-2 and Inquiry 85-5

Is it the intent of *SNT-TC-1A* to allow a Level I NDT person to perform, evaluate and accept or reject an NDT examination in accordance with written procedures and acceptance standards without the presence of a Level II NDT person at the time of evaluation or interpretation?

Response

A Level I individual may perform the functions as inquired only if the written procedure and acceptance standards are in

the form of a written instruction applicable to a specific calibration, specific test and specific evaluation. The written instruction must be sufficiently specific and complete to ensure that the Level I individual can make a clear determination for acceptance. The written instruction shall not permit the Level I individual to interpret any aspect of the procedure and standards not specifically defined in the written instruction.

Inquiry 84-3

If an employee has met the training and experience requirements for a higher level of certification with a former employer but was not certified to that level, may a new employer certify the person to that higher level without additional training or experience if all requirements of 10.2 have been met?

Response

Yes, provided the training and experience are specifically applicable to the new employer's requirements, are documented to the requirements of the new employer's written practice and the candidate passes the necessary examinations. Reference Inquiry 80-12.4.

Inquiry 84-4

1. Can home-study (correspondence) courses allow one to meet the training requirements of *SNT-TC-1A*? Would the course better meet *SNT-TC-1A* if it included quizzes which were mailed back to the responsible "Level III agency" for evaluation, allowing the agency to offer direction to the participant?
2. How many hours credit for training received would the participant be given? Would this be determined by the authors of the course?

Response

1. Yes. A home-study or correspondence course may be used toward satisfaction of *SNT-TC-1A* recommended training provided it is organized as a course with sufficient quizzes to assure an understanding of the material and that it is specifically described in the employer's written practice. Quizzes associated with a home-study or correspondence course may be used toward compliance with Paragraph 7 to insure comprehension of training information, but not toward

compliance with Section 8, Examinations.

2. The credit hours should be determined by the Level III responsible for the course as reflected in the employer's written procedure.

Inquiry 85-1

May the recommended experience for a given method and/or level be reduced for a candidate having experience and certification in another examination method?

Response

No. Table 6.3.1 (1980 edition) notes (1) and (2) relate to NDT-related activities. Also see Section 3 and Section 6.

Inquiry 85-2

We request you to clarify whether a person qualified as per the 1975 edition and renewed once in three years is required to be requalified by conducting Specific examination as per the 1984 edition. We interpret that the 1984 edition is applicable for the personnel taking a qualifying examination for the first time and the qualification of the persons qualified prior to August 1984 is not affected.

Response

Inquiries 77-1, 77-6, 78-2 and 80-14 established the precedent in principle that an individual once certified need not establish a new certification upon publication of a revised edition of *SNT-TC-1A*. This interpretation is applicable to the publication of all editions of *SNT-TC-1A*, past and present and to future editions provided that future editions contain no provisions to the contrary.

Inquiry 85-3*

1. Paragraph 6.2.1 (1975 edition) states, "The experience factor in months is based on a normal 40-hour work week (175 per month)." Is it intended that the individual document 8 hours per day for a full calendar month to obtain the 175 hours?
2. May an individual be certified to Level I in the MT method after working one to three hours per day every day for one month while also performing regular duties as a Level II in the PT method?

3. May time spent in formal training beyond minimum requirements be applied to experience?

Response

1. No. See Inquiry 80-12: The employer's written practice should specify the time period over which simultaneous experience should be credited. See also Inquiry 76-1.
2. Yes, if the working hours in the MT method in the month total 44 or more and all other requirements for certification are satisfied.
**Withdrawn in June 1990. See Inquiry 89-3.*
3. No. It is not intended that formal classroom training in excess of minimum requirements be substituted for experience. Hours spent in hands-on examination in excess of minimum training requirements may be counted toward experience when that provision is contained in the employer's written practice.

Inquiry 85-4

1. Can an employer, acting as the certifying agency, certify a Level III individual to *SNT-TC-1A* criteria if that individual is a self-employed consultant?
2. If so, what method of certification should be used and what objective evidence should be available?

Response

1. Yes. A self-employed consultant qualifies as an employee within the intent of 2.1.5 and 2.1.7.
2. The employer's written practice should describe a method of certification in accordance with the provisions of *SNT-TC-1A*. The objective evidence should be as described in the employer's written practice and should include evidence of education, training, experience and appropriate examinations.

Inquiry 85-5

See Inquiry 84-2.

Inquiry 85-6

Is it the intent of *SNT-TC-1A* that qualification requirements such as visual acuity, color vision and sufficient work experience be completed before the examination date and that the examination date be used as the final certification date in lieu of the employer

establishing the certification date based on all qualifications being met regardless of the final order of completion?

Response

SNT-TC-1A does not recommend a sequence for completing the various requirements for certification. The employer's written practice shall cover all phases of certification, but the written practice need not specify the sequence in which requirements are completed. The certification date may not be based on completion of an individual requirement, such as an examination, but must be concurrent with or subsequent to the date of completion of all requirements for certification.

Inquiry 85-7

A question has arisen with regard to the validity of "Level III certification by appointment" in the case of the owner of a company certifying himself.

Response

See Inquiry 81-9.1: An employer may certify any employee as Level III provided the individual has the qualifications required by the employer's written practice.

Inquiry 85-8

Paragraph 8.6.3(C-2) of *SNT-TC-1A* (1975 edition) requires a percentile weight factor 0.4 to 0.6 for Specific-Practical NDT Level III examination grades. Is it acceptable to interpret this paragraph as follows?

Examination	Weight Factor
General	0.5 Wg
Specific	0.5 Ws
Practical	N/A Wp

Response

In strict conformance with the recommendations contained in the *SNT-TC-1A* (1975 edition), the following apply to Level III examination and certification: 8.5.3(c) Practical Examination Proficiency shall be demonstrated in selecting, specifying and writing specifications and/or procedures for the performance of the applicable nondestructive tests using appropriate reference material.

8.6.3(c) NDT Level III Examination Grades:	
General	0.4 to 0.6
Specific-Practical	0.4 to 0.6

Therefore, in strict conformance with *SNT-TC-1A* (1975 edition), a practical examination is required. Together with Specific examination, the grades may constitute from 0.4 to 0.6 percentile weight factor. There is no recommended distribution for weight factors between the Specific and Practical Examination. The employer may choose any distribution. The response to Inquiry 78-6 states with regard to 8.6.3, "The specific percentile weight factors used should be clearly stated in the employer's written practice and should be based on the particular needs of the employer."

Paragraph 9.3 of the *SNT-TC-1A* (1975 edition) provides that certification shall be based on Paragraphs 6, 7 and 8 but permits modification of those requirements by the employer's written practice. Therefore, the ultimate response to the inquiry will be determined by the basis of the content of the employer's written practice.

Inquiry 85-9

1. Can the personnel already approved by the 1980 edition conduct the test of both eddy current testing and magnetic leakage flux testing without any additional education and/or qualification test?
2. If not, can the personnel already approved by the 1980 edition conduct the testing of only the eddy current test? Is qualification based on the 1980 edition effective only concerning the eddy current test? If it is effective, is it necessary that the personnel already approved by either the 1980 edition or the 1984 edition be identified respectively?

Response

1. To be qualified and certified in the magnetic flux leakage method, personnel shall receive additional education and a qualification examination in accordance with *SNT-TC-1A*.
2. Personnel certified in the eddy current method in accordance with *SNT-TC-1A* (1980 edition) are qualified to perform only the eddy current method. The certification record for an individual should indicate the edition of *SNT-TC-1A* applicable at the time of examination.

Inquiry 86-1

If an inspector has been given an eye examination and found to have a red/green color deficiency, can he be qualified to perform magnetic particle testing and liquid penetrant testing providing the following color test is administered by a Level III?

1. Magnetic particle: a test shall be conducted using welds with known discontinuities to assure their detection. A second test of production welds shall be given to evaluate the inspector's ability to distinguish between relevant and nonrelevant indications. The inspector's certification shall be restricted to using only those colors used in the above tests, such as black powder, gray powder and/or orange powder.
2. Liquid penetrant: a test shall be conducted using welds with known discontinuities to assure their detection. A second test of production welds shall be given to evaluate the inspector's ability to distinguish between relevant and irrelevant indications.

Response

The color vision examinations described are in compliance with the intent of the *SNT-TC-1A* (1980 edition), Paragraph 8.1.1.2 as well as the same paragraph of the 1984 edition and Paragraph 8.2(a2) of the 1975 edition and with prior Inquiry 78-11.2 and Inquiry 81-15. The examinations should be documented in the written practice required by Section 5 of those editions.

Inquiry 86-2

May a Level II as per ASNT guidelines *SNT-TC-1A* legally inspect, for example, the lifting devices of an industrial plant without a written procedure and a report of approval of an ASNT Level III?

Response

The question of whether or not compliance with any provision of *SNT-TC-1A* is legally necessary is beyond the scope of *SNT-TC-1A* and must be determined in the laws, codes and standards applicable to the facility of material being inspected. In situations where *SNT-TC-1A* is applicable, an NDT Level II may interpret and evaluate results with respect to the applicable codes, standards and specifications and may report the results, as provided in

4.3.2. While it is good practice to perform all NDT in accordance with a written procedure, *SNT-TC-1A* only prescribes written documents for the control and administration of NDT personnel training, examination and certification. See Paragraph 5.1. It does not prescribe that there exist a written procedure applicable to each examination performed. The participation of ASNT Level III is not a requirement under any aspect of *SNT-TC-1A*.

Inquiry 86-3

Regarding the need for reexamination of Level II technician on changing employers, it is our belief that provided that evidence exists of an examination to *SNT-TC-1A* rules, the new employer may recertify the technician to the previously attained level providing he is satisfied that the technician meets the other conditions set by ASNT, regarding period of employment and date of recertification.

Response

Inquiry 78-4.1 and Inquiry 80-9 established the precedent that the examination referred to in Paragraph 10.2 be administered by the "new" employer or obtain copies of the examinations taken by the candidate at the previous employer. This step is necessary to ensure the quality of the examinations and to meet the documentation needs of Paragraph 9.6.1.6.

Inquiry 86-5

1. It is, of course, clear from *SNT-TC-1A* that a company can use an external Level III authority to conduct Level I and Level II examinations and to underwrite its own certification procedures. I have always assumed that this Level III authority should be officially certified by ASNT and his name would therefore appear on a current list of such persons, issued annually by you. Is this correct?
2. It is also possible for a company to certify its own internal Level III authority "with or without an examination" provided it meets other requirements of *SNT-TC-1A* and of its own written practice. If an examination is administered, I have assumed that it should at least be carried out by an external authority certified at Level III by ASNT. Is this a true assumption?

3. If an individual is "internally" certified as a Level III in Company A, can that individual act as an "external" Level III authority for Company B and administer exams for Level I and II personnel in Company B?

Response

1. No, as established by a precedent of Inquiry 86-2, though on a slightly different subject. "The participation of ASNT Level III (i.e., a holder of a valid ASNT Level III certificate) is not a requirement under any aspect of *SNT-TC-1A*." The employer's written practice should specify the requirements.
2. No. See Inquiry 85-7.
3. Considering the response to Inquiry 81-9.2 and Inquiry 83-4.1 and 83-4.2, the answer is yes, provided the Level III is acting as Company B's agent.

Inquiry 86-7

It is requested that clarification be provided regarding whether an individual qualified in accordance with the 1984 edition is also qualified in accordance with previous editions of *SNT-TC-1A*, as referred by the *ASME Boiler and Pressure Vessel Code*.

Response

Inquiry 85-2 established the precedent that an individual once certified need not recertify to another edition of *SNT-TC-1A*. However, as addressed in Inquiry 84-1, "Any or all editions [of *SNT-TC-1A*] could be referenced in the employer's written practice," depending upon the specification or code referencing *SNT-TC-1A* to interpret what is required. If the individual is certified to the latest edition of *SNT-TC-1A*, they are also considered to meet the recommendations of earlier editions.

Inquiry 87-1

In accordance with the intent of *SNT-TC-1A* (1975, 1980 and 1984 editions), is it acceptable to allow credit toward RT Level I qualification and certification for RT work time experience which has been acquired while working as a trainee with and under the direct supervision of certified Level I RT technicians who have met all federal and/or agreement state requirements for qualifications and designation as industrial radiographers?

Response

Yes, provided the Level I receives the necessary instructions or supervision from a certified Level II or III individual. See Paragraph 4.3.1. Paragraph 4.2 of the 1975, 1980 and 1984 editions of *SNT-TC-IA* states, "A trainee should work with a 'certified' individual ..." This certified individual may be a Level I, II or III. Also, per Paragraph 4.3.2, "The NDT Level II ... should exercise assigned responsibility for on-the-job training and guidance of trainees and NDT Level I personnel." The employer's written practice should detail the requirements for the trainee's work time experience. The certified Level I RT technician who has met federal and/or agreement state requirements as an industrial radiographer is outside the scope of *SNT-TC-IA*.

Inquiry 87-2

Does ASNT consider it "acceptable" for an NDT training school to hold a "written practice" and train, examine and certify individuals to that written practice?

Response

No, unless the certified employee is a bona fide employee of the educational institution. *SNT-TC-IA*, Paragraph 1.3 states, "These guidelines have been developed ... to aid employers in recognizing the essential factors to be considered in qualifying employees ..." Paragraph 2.1.5 defines employer as: "The corporate, private or public entity which employs personnel for wages, salary, fees or other considerations." An educational institution can serve as an "employer" and, as addressed in Paragraph 5.1, establish a "written practice." The employer's written practice should address the basis for qualification and certification.

Inquiry 87-3

Paragraph 6.0 of *SNT-TC-IA* (1985 edition) establishes recommendations with respect to education, training and experience pursuant to initial qualification. Table 6.3.1 lists recommended training and experience pertaining to Level I and Level II. The 25 percent rule is found in Note 3 to this table, but not elsewhere in *SNT-TC-IA*.

1. What percent of a candidate's time is intended to be required (in the same sense that the word "required" is used in the heading of Paragraph 6 of *SNT-TC-IA*) as a

qualifier of experience pursuant to Level III certification?

2. Should maintenance of a valid Level II certification over the required qualifying time be considered to satisfy Paragraph 6.3.2 of *SNT-TC-IA* without computation or criteria regarding the percent of time spent working in the method?

Response

1. It is intended that 100 percent of the experience time specified in Paragraphs 6.3.2.1 or 6.3.2.2 or 6.3.2.3 be met in each applicable test method. The 25 percent rule of Note 3 in Table 6.3.1 is not intended to apply to 6.3.2. Note, however, as stated in Paragraph 6.3.2, "When the individual is qualified by examination, the above requirements may be partially replaced by experience as a certified NDT Level II, or in assignments at least comparable to NDT Level II, in other methods ... as defined in the employer's written practice." The employer's written practice should specify the requirements.
2. No. The intent of the experience requirement of Paragraph 6.3.2 is that the candidate should be actively working and acquiring progressive experience in the methods for which certification is sought. Just "maintaining" a valid certification does not meet this intent. The employer's written practice should specify the requirements regarding qualifying work time experience.

Inquiry 87-4

A candidate has met the "established and published" requirements for certification as Level III by a group other than ASNT. The scores were graded to the requirements of MIL-STD-410 and *SNT-TC-IA*. Although not certified by ASNT, could scores based on *SNT-TC-IA* requirements be acceptable by a contracting agency as equivalent to ASNT certification, if all other requirements are met?

Response

As stated in *SNT-TC-IA*, Paragraph 9.1, "Certification of all levels of NDT personnel is the responsibility of the employer." Whether a contracting agency accepts the scores as being equivalent to ASNT is solely up to the employer's

contracting agency. ASNT's position is that there is no "equivalent" to ASNT Level III certification.

Inquiry 87-5

A Level II is terminated from Company A and is employed by Company B as a trainee. Eight months after termination, Company B certifies the employee to Level II.

1. May an employee working at a lower NDT level be upgraded to his former NDT level without retraining?
2. When certifying personnel in accordance with Paragraph 9.3, may training and experience documented by a former employer be considered in satisfying the criteria of Paragraph 6.3?

Response

1. Inquiry 84-3 established the precedent that once an individual has met the certifying employer's required training, even if the training were attained while working for another employer, it is not necessary to repeat the training. Based on this, the trainee could be certified to the former level. However, this assumes that all of the certifying employer's written practice requirements are satisfied. It should further be noted that based on Paragraph 10.2.3 of *SNT-TC-IA* (which requires recertification within six months of termination), certification eight months after termination does not comply with the stated conditions. The employer's written practice should address this matter.
2. Yes. See Inquiry 80-12.4 and Inquiry 84.3.

Inquiry 87-6

Is it intended that an individual with a four-year degree in NDT or any four-year scientific degree from an accredited college and three years as a certified Level II, who has not been performing NDT examinations on a daily basis in the particular method he or she is seeking Level III qualifications, but has been actively involved in the day-to-day technical operations of a major NDT organization, i.e., calibration block development, procedure writing (in the method which he or she is seeking Level III) and involvement in other NDT operations in the organization, be required to spend 25 percent of the

preceding 12 months involved in the particular method in which he or she is seeking qualifications as Level III?

Response

See Inquiry 87-3.

Inquiry 88-1

1. In accordance with the intent of *SNT-TC-IA* (1975, 1980 and 1984 editions), may an employer prepare a written practice which permits Level III leak test qualification and certification in three, two or even one of the four leak testing techniques identified in Table 6.3.1 of *SNT-TC-IA*?
2. When a limited Level III leak test certification in three, two or even one of the four leak testing techniques is intended, may the questions used in the Level III Method and Specific examination be selected primarily or even exclusively for the leak testing techniques for which the limited certification will apply?

Response

1. Yes. Inquiry 82-1 established the precedent: (a) Paragraph 4.1 (1975 edition) permits subdivision of the basic levels of qualification as needed to fit the employer's needs; the scope of these subdivisions may be greater or less than the guidelines of *SNT-TC-IA*; and (b) education, training and experience guidelines of Paragraph 6 and Table 6.2.1(a) should be modified to meet the needs of the subdivisions in accordance with Paragraph 4.1. Note: Table 6.2.1(a) in the 1975 edition was renumbered as Table 6.3.1 in the 1980 edition. Paragraph 4.1 was revised also in the 1980 edition. However, the intent has remained consistent in all three editions.
2. Yes. Paragraph 4.1 permits the subdivision of the basic levels of qualifications as needed to fit the employer's needs; thus, it would be considered appropriate to select Method examination questions specifically for the particular leak testing techniques for which a limited certification is being sought. For Basic examinations, other techniques of leak testing, as well as other nondestructive test methods should be covered in accordance with Paragraph 8.3.3.1(e).

Inquiry 88-2

When the recommendations of *SNT-TC-IA* (1975 through 1984 editions) have been made mandatory requirements in the employer's written practice, as is often required by other agencies, and when personnel have been certified by a new employer under *SNT-TC-IA* Paragraph 10.2, what records must the new employer obtain to satisfy himself that the requirements of 10.2 have been met?

Response

Response to Inquiry 77-10 states: "The specific documentation to be furnished by new employees and past employers and the means for obtaining documentation is referenced in Paragraphs 9.6 and 10.2 of *SNT-TC-IA*. Details should be included in the employer's written practice." Paragraph 1.2 of *SNT-TC-IA* identifies the fact that the document (*SNT-TC-IA*) provides guidelines for the establishment of a qualification and certification program. If an employer's written practice is made mandatory by another agency, it is ASNT's position that the extent of compliance to Paragraphs 9.6 and 10.2 must be addressed in the employer's written practice to the degree necessary to satisfy that agency.

Inquiry 89-1

1. Is it the intent of *SNT-TC-IA* that Specific examination questions about specifications, codes and acceptance criteria be limited to those used during specific assignments?
2. Do Specific examination questions that are designed to demonstrate an applicant's ability to comprehend and utilize specifications, codes and acceptance criteria similar to those used by an employer in his nondestructive testing procedure — but are not directly applicable to the procedures used for specific assignments — meet the intent of *SNT-TC-IA*?
3. Do Specific examination questions that are designed to demonstrate an applicant's ability to comprehend and utilize specifications, codes and acceptance criteria similar to those used by an employer in his or her nondestructive testing procedure — but are formulated in such a manner that every question in the Specific examination may be answered directly by reviewing the reference material (NDT procedure, charts,

graphs, etc.) provided by the employer's Level III examiner — meet the recommendation of *SNT-TC-IA* for closed book written examinations?

Response

1. No. This is a minimum. Other specifications may be covered at the employer's option.
2. No. Specifications used by the employer should be covered as a minimum. Other specifications may be included at the employer's option.
3. No. Questions which can be answered directly from necessary data, such as graphs, tables, specifications, procedures, codes, etc., may demonstrate an ability to utilize the material but do not demonstrate an appropriate knowledge of the equipment, operating procedures and NDT techniques that the individual may encounter.

Inquiry 89-2

If Specific examination questions are taken directly from the data provided, such as applicable procedures or codes, does this meet the implied definition of a "closed book" examination, assuming all questions were selected and approved by the responsible Level III?

Response

No. See Inquiry 89-1.3 and Inquiry 77-5.

General Comments

The term "closed book" in Paragraphs 8.5, 8.3, 8.3 and 8.7 of the 1975, 1980, 1984 and the 1988 editions (respectively) of *SNT-TC-IA* should be interpreted with the degree of flexibility needed to make it fit the employer's situation, as required by Paragraph 1.4 of *SNT-TC-IA*.

The intent of *SNT-TC-IA* examinations is to determine that the candidate is capable of correctly applying the necessary information to real testing situations.

Furthermore, it is generally considered good practice for personnel to refer to the applicable graphs, tables, codes and standards while conducting tests in order to reduce the potential for error. For an employer who uses such good practices, it would be unreasonable and inconsistent with the intent of *SNT-TC-IA* to give examinations without allowing the use of pertinent reference

material when this reference material is provided by the designated examiner.

However, when use of reference material with an examination is permitted, the examination questions should require the exercise of judgment, analysis or computation to the degree needed to demonstrate the candidate's ability to deal satisfactorily with real testing situations. It would not meet the intent of *SNT-TC-1A* if the examination could be passed by simply finding, in the reference material, the correct piece of data or the particular sentence needed to answer the questions.

Inquiry 89-3*

Based on a review of published inquiries in the 1988 Redi-Reference Guide (*Materials Evaluation*, Vol. 46, No. 2), there appears to be a conflict and an open item related to Inquiry 83-10 and Inquiry 85-3.2.

Inquiry 83-10 restated: "Please interpret the 25 percent rule for a trainee in one method who is also performing NDT in a method for which he is already qualified and certified."

***Withdrawn by interpretation panel action (June 1990).**

Inquiry 85-3.2 restated: "May an individual be certified to Level I in the MT method after working one to three hours per day every day for one month while also performing regular duties as a Level II in the PT method?"

***Withdrawn by interpretation panel action (June 1990).**

Response

(Reconsideration of Inquiry 83-10)

The intent is that a full-time inspector working in more than one method may simultaneously receive full-time experience credit for all methods in which he is pursuing certification if at least 25 percent of his work time is spent in each method for which he is claiming credit. The remainder of his work time must be spent in other NDT or NDT-related activities, as a trainee or as a certified inspector and as defined in his employer's written practice. Example: A PT Level II, with no UT experience, begins to accumulate experience toward UT qualification with the goal of becoming a UT Level II. He works 25 percent of his time in UT and the remainder in PT. Under these conditions, he would have the necessary experience to qualify as a UT Level I after three months elapsed time and as a UT Level II after nine additional months elapsed time if his employer's written

practice added no further requirements in addition to those in *SNT-TC-1A*.

Inquiry 89-4

In the 1968, 1975, 1980 and 1984 editions of *SNT-TC-1A*, an employer may waive examinations for the Level III and thereby "certify" the individual by appointment.

There is no such provision in the 1988 edition. However, it is implied by the statement in Paragraph 6.3.2: "When the individual (Level III) is qualified by examination ..."

May the employer waive examination for the Level III and be in compliance with the intent of *SNT-TC-1A* (1988 edition)?

Response

It is intended by the 1988 edition of *SNT-TC-1A* that all Level IIIs initially certified after issuance of the 1988 edition of *SNT-TC-1A* be qualified by examination.

Also see Inquiry 90-2 and Inquiry 92-2.

Inquiry 89-5

1. Because Level III personnel primarily interpret codes and specifications and Level II personnel generally follow approved procedures, shouldn't Level III Specific examinations consist mostly of questions that test the candidate's ability to interpret codes and specifications rather than procedures which the candidate, in fact, may have written?
2. Should the Level II Specific examination deal more with the requirements and acceptance criteria contained in the procedures which will be used by the candidate rather than questions from codes and specifications from which the procedures are developed?

Response

1. No. This is a matter which should be detailed in the employer's written practice. The examination should include questions that test the candidate's knowledge of procedures, as well as questions related to equipment and techniques applicable to the employer's product and methods, to the administration of the employer's written practice and to codes, specifications and standards directly applicable to the employer's activities. Questions

related to the ability to interpret codes, standards and specifications generally related to method (not specific to the employer) may be included as part of the Level III Method examination.

2. No. As noted above, this is a matter for the employer's written practice and depends upon the details of what is expected of the Level II by that employer.

Inquiry 89-6

Is it the intent of *SNT-TC-1A* to permit administration of the certification examination prior to commencing the experience time for a certain level? For example, an individual completes the recommended training and the general, specific and practical examinations for Level I. The experience time then commences and at the completion of the minimum experience period, certification becomes effective as of that date.

Response

SNT-TC-1A states in Paragraph 5.1: "The employer shall establish a written practice for the control and administration of NDT personnel training, examination and certification." The time of examination should be specified in the employer's written practice.

However, it is difficult to understand how an individual requiring experience in order to become qualified can satisfactorily pass an appropriately difficult practical examination prior to obtaining the necessary experience. If an employer believes that this is satisfactory under some circumstances, these circumstances should be clearly specified in the employer's written practice.

Inquiry 89-7

In reference to the *SNT-TC-1A* (1984 edition), we want to know if the words "should" and "shall" have a specific definition. If these words have a specific definition, what is the scope of each?

Response

No. The words "should" and "shall" do not have a specific definition applicable to the 1984 edition of *SNT-TC-1A*.

The implied intent of these words initially was that "shall" was used to express the importance of a particular function or activity to be considered by an employer in the written practice, whereas "should" was intended to denote a suggested or recommended function or activity which could or should be

considered for inclusion in an employer's written practice.

A conflict in the intended usage of these two verbs was introduced by a regulatory body which interprets the words "shall" and "should" when used in their code as "shall" meaning mandatory and "should" being preferred.

To further clarify ASNT's position on the use of these words in the context of *SNT-TC-1A*, the 1988 edition of *SNT-TC-1A* now defines "shall" and "should" in Section 2.1 as

"(8) Shall: a verb used to express the minimum recommended guidelines for most employers' qualification and certification programs; this is intended to express what is mandatory by law or regulation.

"(9) Should: a verb used to express the desired guidelines for most employers' qualification and certification programs."

Inquiry 89-8

See *SNT-TC-1A* (1988 edition), Section 4.3. Can an NDT Level II establish a specific technique he or she will use in an NDT method with an approved general procedure without approval of an NDT Level III?

Response

This issue should be addressed by the employer's written practice. The employee must be qualified to perform the work to be accomplished.

Inquiry 89-10

It has been determined that the subject question as submitted does not constitute a request for clarification of a stated *SNT-TC-1A* recommendation. The question addresses the ASNT Level III program administered by ASNT under the direction of the Level III Program Committee or, after 1990, through the National Certification Board (NCB). The Level III program is an administrative function and is a separate entity from *SNT-TC-1A*. Therefore, this inquiry is not considered a valid request for interpretation.

However, in response to your concern, the interpretation panel answers the following question: Do electric utilities that employ personnel who have been certified to perform nondestructive examination in accordance with *SNT-TC-1A* routinely audit the certification process of ASNT? If not, why?

Response

The answer to your question from an NCB standpoint is no. The reason why is stated above: the ASNT Level III Program is a separate activity administered by Board-appointed members through headquarters and is not governed by *SNT-TC-1A*. Due to the nature of the examinations and because of confidentiality requirements, no one but NCB members have access to these examinations.

Inquiry 89-11

1. Can one waive the training requirement on the basis of previous documentable work experience and test by examination for certification?
2. Can one waive the training requirements on the basis of previous documentable certification, for certification?

Response

1. No. Training cannot be waived. Training and experience are different elements of qualification. Training is a required segment of qualification with recommended times related to education levels. Work experience and examinations are the other elements considered in qualification for certification.
2. No. The employer must evaluate the elements of previous certification to determine whether the elements of the current employer's program have been satisfied by a previous employer's program.

Inquiry 90-1

1. Paragraph 9.6.1.10 states: "Signature of Designated Representative." Should the employer's representative signing for certification be a certified Level III examiner in the specific discipline or can it be signed by an individual with no certification in that discipline but is a certified Level III examiner in a different NDT process?
2. Paragraph 4.3.3 states in part that "... the NDT Level III should have general familiarity with other appropriate NDT methods and should be qualified to train and examine NDT Level I and Level II personnel for certification." Does the general familiarity with other appropriate NDT methods mean "a Level III [is] required to have

enough ability to be able to certify another individual"?

Response

1. The inference of the statement, "Signature of Designated Representative," in Paragraph 9.6.1.10 of *SNT-TC-1A* (1980 edition), is that whoever is identified by the employer in their written practice as the designated representative, may sign the record of certification.
2. No. Paragraph 4.3.3 of *SNT-TC-1A* (1980 edition), states ASNT's recommendations for an employer to consider when selecting their Level III. The last sentence specifies that a Level III should be familiar with other methods and should be qualified by experience and training. The intent is to train and examine Level I and Level II personnel for certification in the methods in which he or she is qualified. This is further clarified in *SNT-TC-1A* (1988 edition), Paragraph 4.3.3, which states, "The NDT Level III, in methods in which certified, should be capable of training and examining NDT Level I and II personnel for certification in those methods."

Inquiry 90-2

1. Is it the intent of ASNT that all Level III personnel certified to the 1988 edition be examined?
2. In accordance with *SNT-TC-1A* (1988 edition), an employer certifies his corporate Level III by examination through an outside service. However, the outside service's Level III was certified by appointment to *SNT-TC-1A* (1984 edition). Is the employer's Level III certification valid to the 1988 *SNT-TC-1A*?

Response

1. Yes. As stated in the response to Inquiry 89-4, "... It is intended by the 1988 edition of *SNT-TC-1A* that all Level IIIs initially certified after issuance of the 1988 edition of *SNT-TC-1A* be qualified by examination." See Inquiry 89-4 and Inquiry 92-2.
2. Yes, provided the employer has assured that the examination services are in accordance with the employer's written practice per Paragraph 9.5 of *SNT-TC-1A* (1988 edition).

Inquiry 90-3

Paragraph 4.3.3 in *SNT-TC-1A* (1988 edition) states that the NDT Level III “shall have a general familiarity with other appropriate NDT methods, as demonstrated by the ASNT Level III Basic examination or by other means.”

1. Is it the intent of *SNT-TC-1A* that “other means” be “written examination administered by a Level III”?
2. Is it the intent of *SNT-TC-1A* that “other means” be “examinations, written or practical, administered by a Level III”?

Response

No. The intent of the statement “other means” is to provide the user of *SNT-TC-1A* with sufficient latitude under Paragraph 1.4 to identify specifically how they would evaluate the extent of a Level III’s general knowledge of other NDT methods, as defined in his written practice.

Inquiry 90-4*

Is it acceptable for a candidate for Level III certification under *SNT-TC-1A* (1988 edition) to be qualified on the basis of demonstrated ability, achievement, experience and education in lieu of qualification by examination as stated in Paragraph 9.6(g)?

Response

No. Paragraph 8.8 specifically requires that a Level III candidate be qualified by examination. Paragraph 9.6(g) addresses the content of the qualification records file to be maintained by the employer of certified personnel.

**This Response was reconsidered. See Inquiry 92-2. Also see Inquiry 89-4 and Inquiry 90-2.*

Inquiry 91-1

Assuming 2,100 hours are worked each year, is it the intent of Paragraph 6.3.2 that a candidate should work 2,100 hours to claim one year of experience or that a candidate should have been active in the methods during the year?

Example: A candidate works 2 hours per month (24 hours) as a Level II in PT and 173 hours per month (2,076 hours) in other methods. At the end of the year, the candidate claims one-year experience in PT.

Response

As previously stated in the response to Inquiry 87-3, it is intended that 100 percent of the work experience time specified in Paragraph 6.3.2 be met in each applicable test method prior to certification.

When the individual is qualified by examination, the above requirements may be partially replaced by experience as a certified NDT Level II or by assignments at least comparable to NDT Level II in other methods listed in Section 3 of this Recommended Practice as defined in the employer’s written practice.

Inquiry 91-2

Does *Recommended Practice No. SNT-TC-1A* (1984 edition) exclude an employer from developing its written practice utilizing visual examination as an NDT method?

Response

No. As previously stated in the response to Inquiry 78-7 and 80-8, the intent of Paragraph 1.4 is to provide the employer adequate flexibility to accommodate a variety of special needs as documented in a written practice.

Inquiry 91-3

May a Level III or his designated representative administer eye examinations? According to Paragraph 8.1, a Level III or his designated representative shall administer and grade the examinations specified in Section 8.3 to 8.8. Paragraph 8.2 (which covers eye exams) is not addressed in this statement nor are any qualified individuals addressed in 8.2. Should Paragraph 8.1 read “8.2 through 8.8” or are Level IIIs not permitted to administer eye exams and if so, who is?

Response

As previously stated in the response to Inquiry 78-11, it is intended that Level III personnel be allowed to administer the near-distance vision acuity examination. However, if the employer elects to use other methods of vision examination, it may be necessary to use personnel with other specialized qualifications to administer the examination. The employer should include details of the qualifications required of examiners in the written practice.

Inquiry 91-4

According to *SNT-TC-1A* (1984 edition), when an employee has been tested to Level III requirements by an outside agency and certified as a Level III by his or her employer on the basis of these tests:

1. Can the employee be recertified based on the employer’s statement of continuing satisfactory performance?
2. What constitutes “evidence of continuing satisfactory performance”?
3. Must the certification be given by another NDT Level III employed by the company or may it be given by a company official?

Response

1. Paragraph 9.7.1 of *SNT-TC-1A* allows for recertification with evidence of continuing satisfactory performance. An employee may be recertified with evidence of continuing satisfactory performance if addressed in the employer’s written practice.
2. The intent of “evidence of continuing satisfactory performance” in Paragraph 9.7.1 of *SNT-TC-1A* is that the employer shall have objective evidence of an individual’s satisfactory performance during the previous certification period of the appropriate duties outlined in the employer’s written practice.
3. As previously stated in the response to Inquiry 90-1, the inference of the statement “signature of designated representative” in Paragraph 9.6.1.10 is that whoever is identified by the employer in their written practice as the designated representative may sign the record of certification.

Inquiry 91-5

Is it the intent of Table 6.3.1 (1984 edition) that, for initial certification to Level III PT, the recommended three months of experience must be accumulated in consecutive months? Assuming the individual is being certified directly to Level II, does not perform NDT full time and the 25 percent rule cannot be applied.

Response

No. As stated in Paragraph 6.3.1, the intent of Table 6.3.1 is to list the recommended training and experience factors to be considered by the employer

in establishing written practices for initial qualification of Level I and Level II individuals. There is no provision to limit the time period over which the experience may be credited.

Inquiry 92-1

Please clarify the response to Inquiry 78-4, question 2, as it applies to *SNT-TC-1A* (1975 edition).

1. Is it necessary for the recertification of a previously qualified and certified individual to obtain further experience in the applicable method, in addition to refresher training?
2. If a written practice contains a provision to administer only additional training prior to the examination process, would the intent of Paragraph 10.2 be satisfied?

Response

1. As previously stated in the response to Inquiry 78-4, when an individual has proof of prior certification but has not worked in the method within the immediate six months prior to termination or the individual is being recertified after more than six months have passed since termination, additional training and experience is recommended. Whether or not additional training or experience is necessary must be determined and detailed in the employer's written practice.
2. Paragraph 10.2 addresses specific conditions for the recertification of terminated Level I or Level IIs solely by examination. Inquiry 78-4 addresses the general recommendations for recertifying individuals who do not meet the requirements of 10.2. The employer's written practice must detail such provisions in accordance with Paragraph 1.4.

Inquiry 92-2

Based on a review of inquiries published in *Materials Evaluation*, the following text is provided to clarify an earlier response.

Response

(*Reconsideration of Inquiry 90-4*)

SNT-TC-1A (1988 edition) recommends that a candidate for Level III be qualified by examination. However, Section 9.3 states

"Certification of NDT personnel shall be based on demonstration of satisfactory qualification in accordance with Sections 6, 7 and 8, as modified by the employer's written practice."

Therefore, a candidate for Level III could be qualified on the basis of demonstrated ability, achievement, experience, and education in lieu of examination, if specifically addressed in the employer's written practice.

Also see Inquiry 89-4 and Inquiry 90-2.

Inquiry 93-1

Is it the intent of Paragraph 9.7.3 that any time a certified employee attempts a certification examination in the method certified and fails, his current certification shall be revoked?

Example: A Level I employee was issued a certification with a three-year expiration date. Two years after certification he attempts a Level II examination and fails. Is the Level I certification still valid or should the employee be reexamined in accordance with Paragraph 8.10 prior to reinstatement of his certification?

Response

The intent of Paragraph 9.7.3 is to allow an employer to reexamine an individual at any time (employer's discretion) for the purpose of extending an existing certification (i.e., recertify an individual to the same method and level) or for revoking an existing certification. The specific details of extending or revoking an existing certification must be documented in the employer's written practice.

In the example, since a higher level certification was attempted and failed, the existing lower level certification would be considered valid for the remainder of the certification period.

Inquiry 93-2

Section 8.8, part 4 and part 5 refer to a valid ASNT Level III certificate.

1. Is the ASNT Level III certificate endorsement limited to persons tested by ASNT?
2. A person was appointed as a Level III in June 1988, in accordance with the recommended guidelines of the 1984 edition *SNT-TC-1A* for a five-year period. Is that person meeting the "requirements" of the 1988 edition through May of 1993?

3. In the case of Level III certification by appointment, dated June 6, 1990, would this example be valid?

Response

1. Yes.
2. *SNT-TC-1A* is a recommended guideline. As such, it is to be used by employers in developing their own requirements. Therefore, the employer may accept the appointed Level III certification of the 1984 edition as satisfying the 1988 edition, if specified within the employer's written practice. See the response to Inquiry 85-2 and Inquiry 86-7.
3. Yes, see the response to Inquiry 92-2.

Inquiry 93-3

NDT technicians are employees of the state. The state's register has identified the "Qualification and Certification Committee" as being responsible for the qualification and certification of NDT personnel. In addition, the committee is allowed to approve and use testing centers for examinations.

If the NDT technicians work for a subsidiary of a corporation, who does ASNT recognize as the employer for the sake of certification?

Response

It is against ASNT policy to judge on the applicability of employer policies and documents.

The *SNT-TC-1A* Interpretation Panel was established to respond to written inquiries about *Recommended Practice No. SNT-TC-1A, Personnel Qualification and Certification in Nondestructive Testing*. The responses clarify the intent of ASNT's Technical and Education Council and recommendations of *SNT-TC-1A*.

Inquiry 93-4

If an individual is certified as a Level I in MT and is progressing to Level II certification per the 1980 edition of *SNT-TC-1A*, does the individual need an additional three months of experience or are only two months of experience needed since the individual already acquired one month of experience for Level I?

Response

Yes, the individual will require an additional three months of experience.

Inquiry 94-1

Please clarify ASNT's intent regarding the phrase, "assignment comparable to that of an NDT Level II" as it related to *SNT-TC-1A*, 1984 edition, Paragraph 6.3.2.1. I interpret this statement to mean: even though an individual has a four-year degree in science or engineering, he/she should also have the "documented" NDT training and experience commensurate with that of a Level II. This documented training should follow the guidelines established in Table 6.3.1 of *SNT-TC-1A* (1984 edition). It also requires (in my opinion) this individual practice as a Level II for at least one year before being eligible for Level III certification.

Response

Please reference Inquiry 83-8.

Inquiry 94-2

I have a question regarding the certification hours. In Table 6.3.1 of the *SNT-TC-1A* recommended practice for a UT certification, it shows that the requirement for Level I is three months and Level II is an additional nine months. Three months at 40 hours per week translates into 480 hours; nine months at 40 hours per week translates into an additional 1,440 hours. I am currently doing thickness testing. My question is: How much of that time should be shear wave inspection in order to be an unrestricted Level II according to ASNT recommendations?

Response

Please reference Inquiry 80-3.

Inquiry 95-1

If the person who administered and graded an examination is identified on the examination and on the certification, and the examination and certification are signed by the Level III certifier, does the Level III need to issue a letter or statement delegating that person as their representative?

Response

Section 5.1 states: "The employer shall establish a written practice for the control and administration of NDT

personnel training, examination, and certification." The employer's written practice should identify who is responsible for the administration and grading of examinations. It should also identify the method used to identify a Level III's designated representative. When not specifically addressed in the written practice, designation of a representative becomes wholly the responsibility of the NDT Level III. A Level III's signature on the examination or certification may be accepted as designation.

Inquiry 96-1

1. [Ref: 8.8.1(b) and 8.8.1(c), 9.5.1] The number of examination questions is increased by Section 8.8.1(b) and 8.8.1(c). Shall the NDT Level III who has been qualified with the examination in accordance with an earlier edition and continuing satisfactory performance be required to take an additional examination until his next requalification?
2. [Ref: 8.8.2(a)] The revised requirements deleted the selection of questions from published ASNT Level III questions and required questions "similar to." Do the requirements intend to prohibit to make or adopt the same questions as ASNT Level IIIs?
3. [Ref: 8.5(4)] Shall the NDT Level I, who was qualified in accordance with an early edition and continuing satisfactory performance, be required to take an additional examination evaluating the practical examination results, until next requalification, if their written practice stipulates the specific evaluation of acceptance for the NDT Level I?

Response

1. No. Level III certification is valid until it is expired. At that time, the individual should be recertified according to the employer's guidelines. See Inquiries 85-2, 86-7 and 93-2.2.
2. No. ASNT Level III questions are administered by ASNT's Certification Management Board (formerly the National Certification Board). The questions are similar to those of a *Level III Study Guide*. Both sets of questions can be but may not necessarily be the same. See Inquiry 79-2.

3. No. Level I certification is valid until the expiration date. At that time, the individual should be recertified according to the employer's guidelines. See Inquiry 85-2, Inquiry 86-7 and Inquiry 93-2.2. Based on Sections 5 and 9 of *SNT-TC-1A*, certification of all levels of NDT personnel is the responsibility of the employer.

Inquiry 96-2

Is it the intent of *SNT-TC-1A* that any individual examination grade less than 70 percent should be considered a failing grade?

Response

Yes.

Inquiry 96-3

When applying *SNT-TC-1A* 1992 edition in strict accordance with the document, is it ASNT's interpretation that a Level III must be examined?

Response

No. Certification of all levels of NDT personnel is the responsibility of the employer. It is the intent of ASNT to certify Level IIIs by examination. However, the employer can specify the requirements for a certification route without examination in the employer's written practice. Please see Inquiry 80-9, Inquiry 89-4, Inquiry 90-2, Inquiry 90-4 and Inquiry 92-2.

Inquiry 99-1

May an employer use the training and experience hour requirements specified in the 1984 edition of *SNT-TC-1A* for personnel who have not graduated from high school and are being qualified to the 1992 edition of *SNT-TC-1A*?

Response

Yes.

Inquiry 99-2

Is it the intent of the 1992 edition of *SNT-TC-1A*, that a person without a high school diploma or equivalent, not be certified to any NDT level?

Response

No.

Inquiry 99-3

Is it the intent of *SNT-TC-1A* that any composite examination grade less than 80 percent should be considered a failing grade?

Response

Yes.

Inquiry 99-4

Paragraph 4.0 (Levels of Qualification) of *SNT-TC-1A* 1984 edition permits those levels to be further subdivided by the employer for specific situations. Is there sufficient latitude within that paragraph to permit an employer to certify a person who is not qualified or certified in any method, as an Administrative Level III?

Response

No. See Inquiries 88-1 and 82-1. Under the recommendations of *SNT-TC-1A* it is not permissible for an employer to certify an individual who is not qualified (or certified) in any method as an NDT Level III, Administrative or any other title.

Paragraph 3.1 of *SNT-TC-1A* identifies the nondestructive testing methods where qualifications and certifications are awarded. Paragraph 4.3 identifies NDT Level I, NDT Level II and ASNT NDT Level III as the basic levels of qualifications. Paragraph 4.1 allows these levels to be further subdivided by the employer for specific situations. It is intended that the subdivided levels be method specific and detailed in the employer's written practice. The provisions of Paragraph 9.3 apply to the certification of all NDT personnel including subdivided levels.

Inquiry 00-1

Whose responsibility is it to personally maintain the certified employees' records and handle the files? The employer? The appointed ASNT NDT Level III? The human resources department? Or anyone assigned by the employer?

Response

Responsibility for maintaining records should be addressed in the employer's written practice.

Inquiry 00-2

A company has a written practice for TIR personnel. They then become a part of the quality control group and want to

develop a written practice for vibration analysis. The two groups are not connected in any way. They have different managers and locations. Is it permissible to have two separate written practices, one for TIR and one for VA personnel?

Response

Yes.

Inquiry 00-3

How can an employer who wishes to utilize the services of an outside agency adopt that agent's written practice, course instruction or examination particulars as acceptable as is within his written practice?

Response

Reference Inquiry 77-3.

Inquiry 01-1

I am inquiring of ASNT regarding an NDT Level III's scope of authority. I have asked several ASNT NDT Level IIIs locally regarding this matter and have received several answers. Can an NDT Level III (not ASNT NDT Level III) perform third party Level III services for outside companies (this particular Level III is operating under the 1996 edition of *SNT-TC-1A*)?

Response

Yes.

Inquiry 01-2

Was or is it the intent of ASNT to prohibit the appointment of qualified personnel to Level III positions, making examination mandatory, as our authorized inspection company has interpreted it?

Response

No. Refer to Inquiry 92-2.

Inquiry 01-3

Does a Level I NDT technician require a high school diploma? ASNT's *Recommended Practice No. SNT-TC-1A* does not specifically list initial training or experience recommendations for personnel without a high school education and I need to know how to certify a man who has done NDT work for years but does not have his diploma.

Response

No. Should be addressed in employer's written practice.

Inquiry 01-4

We are an inspection company in Iran and would like to edit our written practice for training and qualification of NDT personnel. However, I have the 1988 edition of ASNT's *Recommended Practice No. SNT-TC-1A*, where Paragraph 8.3.4 states that, "on the basis of demonstrated ability, achievement, experience, and education, as defined in Par. 4.3(3) and 6.3, the employer may waive examination for the Level III individual." I would like to know whether this point still holds good and can we still rely on it to appoint a company Level III?

Response

Yes, if you are operating under the 1984 or an earlier edition. You should note that Paragraph 8.3.4 was dropped from *SNT-TC-1A* in the 1988 and all subsequent editions.

Inquiry 01-5

Is the color vision test mandatory for ASNT Level II qualification in radiographic testing?

Response

Yes. That is, the color contrast differentiation examination is mandatory. The color contrast differentiation exam should demonstrate the capability of distinguishing and differentiating contrast among colors or shades of gray used in a method as determined by the employer.

Inquiry 01-6

Who can administer the vision tests, near vision acuity and color contrast differentiation? I understand that the near vision test should be administered annually and the color contrast differentiation test upon initial certification and at three year intervals. But who can do it? A Level III who is in charge of the certification program? Medical personnel? What about the color contrast differentiation test?

Response

Any personnel designated in the employer's written practice to administer the vision tests.

Inquiry 01-7

I work for the Department of Defense and I'm in the middle of reviewing a contractor's written practice, which supposedly was written in accordance with *SNT-TC-1A*. According to the contractor's written practice, *SNT-TC-1A* allows the employer to waive Level III examinations. "In accordance with *Recommended Practice No. SNT-TC-1A*, based on demonstrated ability, achievement, experience, and education, the employer may waive examination for the Level III individual." It doesn't say anything about having a valid ASNT NDT Level III certificate. Is this true? Note that the contractor is required to utilize the latest version of *SNT-TC-1A*.

Response

Yes. Reference Inquiry 85-7 and 81-9.1.

Inquiry 01-8

1. Paragraph 8.1.1 of *SNT-TC-1A* (1992) reads: "An NDT Level III shall be responsible for the administration and grading of examinations specified in Section 8.3 through 8.8 for NDT Level I, II, or other Level III personnel. The administration and grading of examinations may be delegated to a qualified representative of the NDT Level III and so recorded. The actual administration and grading of Level III examinations specified in 8.8 may be performed by a qualified representative of the employer."

In reference to the above paragraph, what is meant by a "qualified representative of the NDT Level III" to whom an NDT Level III can delegate authority for administration and grading for NDT Level I, II or other Level III personnel? Please explain specifically the term "qualified." What shall be the extent of the qualification of the person? Does it mean that the person should be highly qualified in the NDT field or can the person here be a responsible management representative?

2. Again in reference to the above paragraph, what is meant by "qualified representative of the employer?" What is the level of qualification necessary in this case? For NDT Level III certification by the employer, is it required for the person who will issue certification to the ASNT NDT Level III to be

highly qualified in the relevant NDT field or can he or she be a top management representative (in our case, our divisional head — that is, vice president of maintenance) who is knowledgeable in NDT but who does not have qualification in the NDT field?

3. It is well understood that *SNT-TC-1A* is a guideline and that the employer can modify it reasonably to meet any specific needs warranted under the circumstances and/or applications. There are various organizations and schemes in NDT qualification/certification such as ISN'T (Indian Society for Nondestructive Testing), DIN, MIL and Japanese certification schemes. Each has its own constitution and procedure for NDT personnel qualification countrywide. If somebody in my company is preexisting with other than ASNT Level I or II certification status (like ISN'T) or if a new person joins my company with some other Level I or II certification status, considering his competency, education and course coverage in that method, can I certify him or her to equal/equivalent ASNT NDT level status by modifying the company's written practice accordingly? That is, can an ASNT NDT Level III certify ISN'T (or some other) Level I or II person to an equal ASNT NDT level based on competency, education and course coverage in the method?
4. Is the existence of a company NDT personnel certification procedure — a written practice — equally important and required for NDT personnel irrespective of industry type?

Response

1. Needs to be addressed in employer's written practice.
2. See Inquiry 95-1.
3. Yes.
4. Yes.

Inquiry 01-9

Regarding Paragraph 8.2.2 of *SNT-TC-1A*, is there a recognized method for differentiating shades of gray used in the method (radiography)?

Response

SNT-TC-1A does not define a specific method. The specific method is up to employer discretion.

Inquiry 01-10

We sometimes recertify persons periodically based on Paragraph 9.5.1.a on recertification in the 1996 edition of *SNT-TC-1A*, which cites "evidence of continuing satisfactory performance." At present, my qualification to date has been ASNT NDT Level III RT. Will I be able to issue a certificate (with my signature on the certificate) for someone who is being recertified by the above route?

Response

Yes.

Inquiry 01-11

1. May a Level III perform a color contrast differentiation test along with the near vision acuity test as mentioned in Paragraph 8.2 of *SNT-TC-1A* (1996), if documented so in the written practice?
2. Is it also required to perform a test of gray shades, if the color contrast differentiation test is performed as per Paragraph 8.2 of *SNT-TC-1A* (1996) using the Ishihara series of plates and so documented in a written practice?

Response

1. Yes.
2. Yes.

Inquiry 01-12

In the 1996 edition of *SNT-TC-1A*, Paragraph 9.4 states (in part) that "personnel certification records shall be maintained on file by the employer." Who is it that actually maintains the records? The company's human resources department? The company's personnel department? The company's appointed Level III person? The certifying authority? Is it a common practice to delegate this task to the appointed NDT Level III person as per the written practice?

Response

Needs to be addressed in employer's written practice.

Inquiry 01-13

This is in relation to Paragraph 10.2 of the 1996 edition of *SNT-TC-1A*. One division of company A was merged and acquired by company B. All of the employees of its division were hired by company B within six months and their job activities did not change. The

employer of company B designated the Level III personnel of company A as the outside agency. The employer established a written practice, which was prepared by the Level III of company A. In the written practice, it is specified that the employer can waive the examination in cases where the job activities are the same as they were in company A. May the employer of company B certify the employee who had been certified by company A without examination in this case?

Response

Yes, if addressed in employer's written practice.

Inquiry 01-14

The wording of Paragraph 4.3.1 of *SNT-TC-1A* (which reads the same in the 1996 and 2001 editions) is not clear and is inconsistent with the body of knowledge. Please advise of the official ASNT position on the following.

1. Is it the intent of Paragraph 4.3.1 of *SNT-TC-1A* that a Level I receive direct supervision from a Level II or Level III by their presence during the examination, interpretation, evaluation and reporting of NDT test results?
2. According to the recommended training listed in *SNT-TC-1A*, a Level I individual does not receive training on discontinuities, interpretation and evaluation in most NDT methods such as PT, RT, UT and VT. How could a Level I individual perform the functions of interpretation and evaluation authorized in Paragraph 4.3.1 even with the presence of a Level II or III?

Response

It is the intent of 4.3.1 that the Level I should receive the necessary instruction or supervision from a certified NDT Level II or Level III individual. The extent of said instruction or supervision should be sufficient to perform the tasks required as determined by the responsible party.

Inquiry 02-1

An interpretation of *SNT-TC-1A* (2001) Paragraph 2.1.14 is requested. The paragraph states that an employer writes a written practice for the qualification and certification of their employees. However, Inquiry 83-7 suggests that employers can certify qualified nonemployees, while Inquiry

87-2 implies that only bona fide employees can be certified.

1. Is it the intent that employers certify only their qualified employees?
2. Is it the intent that employers, when permitted by their written practice, certify qualified nonemployees?
3. Would the answer in question 2 change if a third party, who agreed with the arrangement, were compensating both the nonemployee and the certifying company?

Response

Reference Inquiry 87-2.

1. Yes.
2. No.
3. No.

Inquiry 02-2

Is it the intent of *SNT-TC-1A* (2001) Paragraph 10.2 to recommend periodic testing with test props with at least one flawed specimen or are other means of technical performance evaluation acceptable, for example, monitoring an inspector performing an official production inspection?

Response

The means for periodic technical performance evaluation should be described in the employer's written practice. Note that the evaluation of technical performance should consist of not only monitoring the proper application of technique, but also the ability to recognize relevant indications and evaluate those indications against the employer's acceptance criteria.

Inquiry 03-1

1. Regarding *SNT-TC-1A* (1984) Paragraph 9.7.1, what is considered proper "evidence of continuing satisfactory performance"?
2. Does this mean the certified individual shall maintain documentation of satisfactory performance?
3. How often should performance be documented?
4. CP-189 (1991) indicates suspension should occur if duties are not performed during any consecutive 12-month period (Sec. 7.2). Is this implied in *SNT-TC-1A*?

Response

1. Please reference Inquiry 91-4 Question 2.

2. No.
3. *SNT-TC-1A* (1984) provides the user sufficient latitude under Paragraph 9.7.1 to identify specifically how they would evaluate "evidence of continuing satisfactory performance." The requirements should be documented in the employer's written practice.
4. There are no specific provisions in the 1984 *SNT-TC-1A* regarding interruption of NDT duties while continuing to work for the same employer. However, the employer must be satisfied with the proficiency of any individual at any level to handle work tasks. The employer has direct knowledge of the employee's prior performance and can best judge the need for reexamination as a function of duration of interrupted NDT service.

Inquiry 03-2

May an NDT Level III develop, qualify and approve NDT procedures, and establish and approve techniques in the methods in which not certified?

Response

No, see the response to Inquiry 90-1, Part 2 and Inquiry 10-5.

Inquiry 04-1

1. Is it the intent of Paragraph 1.4 that an employer can modify the "Guidelines" of *SNT-TC-1A* to the extent that Level II and Level III NDT personnel can be "certified" without any examinations if written this way in the written practice?
2. What are the limits that are intended regarding how much the employer can deviate from *SNT-TC-1A* as written? If no limits are given, the employer can change the entire context of *SNT-TC-1A* to eliminate all certification exams. Is that the intent?

Response

1. No. The provisions of Paragraph 1.4 allow modification of the detailed recommendations; it is not intended to allow elimination of the basic provisions of the document.
2. No. Paragraph 9.2. requires certification in accordance with "Section 8, Examinations" as described in the employer's written practice.

General Comments:

SNT-TC-1A allows for modification of detailed recommendations as necessary to meet particular needs. The intent is that there be a technical rationale to support such modification. Elimination of requirements, such as training, experience and examination, goes beyond modification of detailed requirements.

Inquiry 04-2

1. Is it the intent of paragraph 12.1.1 that individuals who are re-certified based on “continuing satisfactory technical performance,” must pass a new practical examination?
2. May a Level I or II individual be re-certified, based on “continuing satisfactory technical performance” without taking a new practical examination?

Response

1. No. See Inquiry 91-4 Question 2.
2. Yes. *SNT-TC-1A* provides the user sufficient latitude under Paragraph 9.7.1 to identify specifically how they would evaluate “evidence of continuing satisfactory performance.” The requirements should be documented in the employer’s written practice.

Inquiry 05-1

Paragraph 8.1.3 states “Examinations administered for qualification should result in a passing grade of at least 80 percent,” but if the employer’s written practice states that each examination must achieve 70 percent or more, and does not require an 80 percent composite, is this acceptable?

Response

No. See Inquiry 99-3.

Note to the Inquirer

The *SNT-TC-1A* Interpretation Panel reviewed this question and agreed with the original response.

Inquiry 07-1

Per the 2001 edition of *SNT-TC-1A*, Paragraphs 7.1, 7.2, and 9.4.4, and Tables 6.3.1A and 6.3.1B:

1. Can computer or Web-based NDT training with associated electronic quizzes be used to satisfy the training requirements described in Paragraphs 7.1 and 7.2?

2. If so, how should an employer document that training hours meet the recommended hours listed in Tables 6.3.1A and 6.3.1B so they can comply with the “satisfactory completion” requirements required by Paragraph 9.4.4?

Response

1. See Inquiry 84-4, response 1. Inquiry 84-4 addresses home-study (correspondence) courses, but the response is appropriate for both computer and Web-based training.
2. See Inquiry 84-4, response 2.

Inquiry 07-2

Per the 2001 edition of *SNT-TC-1A*, Paragraphs 6.3.2.1 through 6.3.2.3, may experience earned as a limited Level II for the prescribed period of experience time qualify a person to sit for the ASNT NDT Level III exam in that test method?

Response

No response provided; this question is beyond the scope of *SNT-TC-1A*. The ASNT NDT Level III program is a third-party certification program governed by the Certification Management Council, not *SNT-TC-1A*. Any inquiries about the ASNT NDT Level III program should be addressed to the Certification Management Council c/o the Senior Manager, ASNT Technical Services Department.

Inquiry 07-3

With regard to the 2006 edition of *SNT-TC-1A*, Table 6.3.1A, if my UT candidate has completed training and testing requirements per *SNT-TC-1A* 2006 and has completed 740 hours of intern experience with UT under supervision, how do we use the “Total Hours in NDT” column to complete the UT Level II qualification/certification process? It appears that without any other experience, this UT candidate would have to accumulate a total of 1600 hours per note 1.0 if they were going directly to Level II in only the UT method. Is this correct?

Response

Yes.

Inquiry 07-4

Regarding the 2001 edition of *SNT-TC-1A*, Paragraphs 2.1.8 and 4.2: A trainee (uncertified technician) gets assigned to go and perform some NDT.

There is no other technician with this trainee on the job. It takes 8 hours to complete the job. How many hours of “Work Experience” can be claimed?

Response

None. Paragraph 2.1.8 defines Experience as “work activities accomplished in a specific NDT method under the direction of qualified supervision including the performance of the NDT method and related activities”

Inquiry 07-5

When providing third-party Level III services to clients who are operating in accordance with *SNT-TC-1A*, may an ASNT NDT Level III both provide the training and administer qualification examinations to those clients’ personnel?

Response

Yes.

Inquiry 07-6

Is it the intent of *SNT-TC-1A* that providers of third-party training and examination services (as permitted by Paragraphs 7.4 and 8.1.5 respectively) be accredited by some third-party body?

Response

No. Meeting the employer’s written practice requirements is all that is recommended in these paragraphs.

Inquiry 08-1

With reference to Table 6.3.1A, if a trainee is being qualified in only one method, which would be the total experience hours for PT Level I for qualification and certification?

1. 70 hours (work experience in the method)
2. 130 hours (70 hours of work experience in the method plus 60 hours in NDT)
3. 200 hours (70 hours of work experience in the method plus 130 hours in NDT)

Response

For PT, Table 6.3.1A indicates that 130 hours are required in NDT, 70 hours of which must be in PT. The additional 60 hours in NDT may also be acquired in the PT method or may be acquired in any other method.

Inquiry 08-2

Per the 2001 edition of *SNT-TC-1A*, a Level II examiner is certified in PT, MT and VT and has been approved as capable of distinguishing and differentiating contrast among colors according to Ishihara standard plates, as determined by the written practice. Does this person also require approval by a shades of gray acuity examination to be qualified in RT to meet the requirements of Paragraph 8.2.2?

Response

Yes. See Inquiry 01-11. Paragraph 8.2.2 allows the employer to determine the method of testing for color differentiation or gray shade differentiation. Whether to test for color differentiation or gray shade differentiation is determined by which is appropriate for the method the individual is being certified in.

Inquiry 08-3

Per the 2001 edition of *SNT-TC-1A*, an MT examiner has been approved in the capability of distinguishing and differentiating contrast among colors according to Ishihara standard plates. Does this person need to be tested in shades of gray acuity, if the MT procedure uses gray magnetic particles, to meet the requirements of Paragraph 8.2.2?

Response

No. See Inquiry 08-2.

Inquiry 08-4

Is it permissible to count a 40-hour radiation safety training course as part of the 80 hours of Level II RT training recommended in Tables 6.3.1A and 6.3.1B?

Response

No.

Inquiry 09-1

1. With regard to NDT Level IIIs signing off on certification after successful completion of trainees' examinations, is it the intention that the NDT Level III must be certified in the method for which he or she is signing off as per *SNT-TC-1A* Paragraph 4.3.3?
2. Is it commonly accepted in the industry that an NDT Level III can sign off on certifications for

methods other than those in which he or she is certified?

Response

1. This question refers to two separate issues.
 - a. Can an NDT Level III sign off on certifications in methods for which he is not qualified? Yes. Signing off on certification is covered by Section 9.0, Certification Record, and Paragraph 9.4.9 states that a person's certification record must have the signature of the Level III who verified the qualifications of a candidate for certification. It does not require that this Level III be certified in the applicable test methods. See Inquiry 90-1 Part 1.
 - b. Can an NDT Level III develop and approve the training and examination program for NDT methods he is not qualified in? No. Paragraph 4.3.3 states that the NDT Level III should be capable of training and examining NDT Level I and II personnel for certification in those methods for which the Level III holds certification. See Inquiry 90-1 Part 2.
2. Determining industry practice is not within the scope of *SNT-TC-1A*.

Inquiry 09-2

Should NDT Level I technicians be allowed to make the final determination as to whether a production part is accepted or rejected and then sign off on the production order paperwork if they follow a step-by-step procedure developed by a Level III?

Response

Level I personnel may accept or reject parts according to written instructions and record results. Reporting the final results requires a Level II or III.

Inquiry 09-3

Paragraphs 6.3.2.1 through 6.3.2.3 describe the eligibility requirements for NDT Level III, all of which require some experience time in the applicable test method(s). Directly below that paragraph is the following sentence: "The above Level III requirements may be partially replaced by experience as a certified NDT Level II or by assignments at least comparable to NDT Level II as defined in the employer's written practice." What is the intent of this sentence?

Response

The cited sentence allows appropriate experience in other NDT methods to be used to modify the "in applicable NDT method" experience requirements cited in the main paragraphs, if so defined in the employer's written practice.

Inquiry 09-4

What qualification requirements are necessary to provide NDT training that will meet the guidelines found in *SNT-TC-1A* Section 7.0, Training?

Response

SNT-TC-1A does not address the qualification of providers of NDT training.

Inquiry 10-1

Can Paragraph 1.4 in *SNT-TC-1A* be interpreted to allow an employer's written practice to restrict or limit the function of an NDT Level III to dye penetrant testing applications, and by doing so, the NDT Level III would not be required to be examined for general knowledge in other methods?

Response

See Inquiry 88-1. The employer may restrict or limit the function of an NDT Level III. Such limitation does not alter the requirements of the Basic examination for the Level III.

Inquiry 10-2

Paragraph 8.8.3.2 states "A valid endorsement of ASNT Level III certificate fulfills the examination criteria for 8.8.1 (Basic examination) and 8.8.2 (Method examination) for each applicable NDT method. Has it been implied that an ASNT NDT Level III is not required to take the employer's examination in order to become NDT Level III for the employer?"

Response

The cited reference in the first paragraph should be 8.8.4 and it only applies to the Basic and Method examinations. The Specific examination requirements for each method (8.8.3) may be addressed in two ways for an ASNT Level III in the method; examination or documented evidence of experience for both the preparation of NDT procedures to code, standards or specification and the evaluation of test results.

Inquiry 10-3

1. For Limited Level II certification in UT A-scan Thickness, Table 6.3.1C shows the technician's starting point as being a trainee. Does this mean that personnel can go directly from trainee to Limited Level II without having held a Level I UT certification?
2. Can personnel that have met the UT Level I requirements shown in Table 6.3.1A (40 hours of training, 210 hours of UT experience and 400 total hours of total NDT experience) be automatically certified as Limited Level II in both Digital and A-scan Thickness since they have exceeded the requirements shown in Table 6.3.1 C for those certifications?

Response

1. Yes
2. No, the body of knowledge requirements as described in ANSI/ASNT CP-105 is different for UT Level I and UT Thickness. The written practice should address any thickness specific training, equipment, codes, experience, etc., necessary for thickness gaging job performance not addressed in the UT Level I training.

Inquiry 10-4

May an employer appoint directly an "EN 473 Level III" as employer's NDT Level III after defined in employer's written practice to sign the certificates according to *SNT-TC-1A* in order to verify qualification of candidate for certification?

Response

The employer may use the examination results that he/she has determined meet the requirement of the written practice. As stated in *SNT-TC-1A*, Paragraph 8.1.5, the employer is responsible for ensuring the examination services meet the requirements of the employer's written practice. Certification can only be issued when it has been determined that all the requirements of the employer's written practice have been met.

Inquiry 10-5

As stated in the *SNT-TC-1A* 2006 edition, Paragraph 4.0 Level of Qualification, 4.3.3 NDT Level III: "An NDT Level III individual should be capable of developing, qualifying and approving procedure ..., etc."

Question

1. Does it mean that all NDT procedures/standard operating procedures (SOP) should be prepared by an NDT Level III?
2. Could an NDT Level II prepare a specific procedure based on the related standard or specification?

Example

The NDT Level I prepares NDT procedures for ferromagnetic connection inspection based on API RP7G and API Spec 7 and all procedures actually adopted from the referenced specifications.

3. Could the director of the company (inspection agency) approve this SOP, or
4. Should this SOP be reviewed and approved by the NDT Level III?

Response

1. No.
2. 3. 4. The scope of *SNT-TC-1A* is limited to guidelines for the qualification and certification of NDT personnel. The capability of developing, qualifying and approving procedure is a qualification for Level IIIs. This does not preclude individuals who are not Level IIIs from also having some or all of those skills. *SNT-TC-1A* does not restrict employers from using individuals he/she feels are qualified for doing those tasks.

Inquiry 10-6

Is it the intent of *SNT-TC-1A* that the hour method for achieving the necessary personnel experience in an NDE method is equivalent to the month method for all applicable current and previous editions?

Response

A person whose documented experience meets the requirements of the table stating the requirements in hours can be considered as having met the experience requirements for documented experience based on months as defined in previous editions of *SNT-TC-1A*.

Inquiry 10-7

Is "self-certification" acceptable per *SNT-TC-1A*? Specifically, can a Level III in one method certify himself in another method as Level III without additional training or examination?

Response

No. Self-certification is not addressed by *SNT-TC-1A* but self-declaration of qualification does not meet the requirement of *SNT-TC-1A*. The objective evidence is required as described in the employer's written practice and should include evidence of education, training, experience and appropriate examinations.

Inquiry 11-1

With regard to Paragraphs 2.1.8, 4.2, and 4.3 of the 2006 edition of *SNT-TC-1A*:

1. May an NDT trainee gain experience hours while working under the direct supervision of a Level I in the method?
2. Are there any circumstances that would allow NDT trainees or NDT Level I technicians to progress to the next certification level without ever having gained actual field experience working with NDT Level II or Level III technicians in the method?

Response

1. See Inquiry 87-1. Yes, provided the Level I receives the necessary instructions or supervision from a certified Level II or III individual.
2. No. As stated in Paragraph 2.1.8, experience can only be gained while working under the direction of qualified supervision.

Inquiry 11-2

1. Do the guidelines described in Paragraph 8.5 of the 2006 edition of *SNT-TC-1A* fully fill the guidelines described in Section 10?
2. Do the two guidelines need to be done separately or can they be done together?

Response

1. Yes.
2. The provisions of Paragraphs 8.5 and 8.6 are done separately. The Practical examination as described in Section 8.5 is part of the documentation for initial certification. The Technical Performance Evaluation as described in Section 10 is intended to document continued satisfactory performance during the certification period.

Inquiry 11-3*

Is recertification considered a “detailed recommendation” or a “requirement” as described in the General Comment following the response for Inquiry 04-1?

Background

In the General Comment following the response for Inquiry 04-1 it says, “*SNT-TC-1A* allows for modification of **detailed recommendations** as necessary

to meet particular needs. The intent is that there be a technical rationale to support such modification. Elimination of **requirements**, such as training, experience and examination, goes beyond modification of detailed requirements.”

Response

This inquiry was answered with the release of the 2011 edition of *SNT-TC-1A* which states in part in Paragraph 1.4, “In developing a written practice as required in Section 5, the employer

should review the detailed recommendations presented herein and modify them, as necessary, to meet particular needs. *Such modification may alter but shall not eliminate basic provisions of the program such as training, experience, testing and recertification.*”

***Note: The SNT-TC-1A Interpretation Panel did not issue a formal response to this inquiry since it was answered in the 2011 edition of SNT-TC-1A.**

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Sample Inquiry to the *SNT-TC-1A* Interpretation Panel

Use the form below when providing necessary information for your inquiries to the *SNT-TC-1A* Interpretation Panel.

Specific questions should be limited to a single recommendation of *SNT-TC-1A*. It is important that your inquiry include the year of the recommended practice that you are using, and that document's paragraph numbers for the text that applies to your company's specific question.

You may attach your own interpretation or a summary of your company's position to aid the panel in responding to your inquiry.

Inquiries addressing several aspects of *SNT-TC-1A* may be returned by the panel with questions for clarification. All inquiries must be typewritten or neatly printed.

A typical inquiry appears as follows.

*Date: 1 January 2011
2006 SNT-TC-1A, Paragraph 1.2*

May an employer deviate from the guidelines of the 2006 edition of SNT-TC-1A, Paragraph 1.2, in order to meet the employer's specific needs?

All inquiries should be sent to:

***SNT-TC-1A* Interpretation Panel
Chair
ASNT Headquarters
Technical Services Department
1711 Arlingate Lane
PO Box 28518
Columbus, OH 43228-0518**

***SNT-TC-1A* Interpretation Panel Chair
ASNT Headquarters
Technical Services Department
1711 Arlingate Lane
PO Box 28518
Columbus, OH 43228-0518**

***SNT-TC-1A* INQUIRY**

Name _____ Phone _____

Address _____ State _____ ZIP _____

Date _____ *SNT-TC-1A* Edition _____ Paragraph _____

Inquiry _____



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