



WRITTEN PRACTICE FOR THE TRAINING, QUALIFICATION, AND CERTIFICATION OF NONDESTRUCTIVE TESTING PERSONNEL

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1.0 Scope

This written practice has been prepared to establish requirements for Pro Line Machining's training, qualification, and certification procedures for nondestructive examination (NDE) personnel in accordance with ASNT Recommended Practice No. SNT-TC-1A (2016).

2.0 Definitions

2.1 Terms included in this document are defined as follows:

- 1) **ASNT:** Acronym for American Society for Nondestructive Testing.
- 2) **Certification:** written testimony that an individual has met the applicable requirements of this written practice.
- 3) **Certifying Agency:** the employer of the personnel being certified (Pro Line Machining).
- 4) **Certifying Authority:** Pro Line Machining's appointed Level III in the applicable NDT method as well as Pro Line Machining's Quality Manager or Quality Director.
- 5) **Closed-book Examination:** an examination administered without access to reference material except that supplied with or in the examination.
- 6) **Comparable:** being at an equivalent or similar level of NDT responsibility and difficulty as determined by Pro Line Machining's appropriate Level III.
- 7) **Documented:** the condition of being in written form.
- 8) **Education:** an institutionalized program, prescribed by appropriate authorities that is offered by schools, institutes, organizations, colleges, or universities established for the sole purpose of providing instruction in an orderly, planned, and systematic fashion.
- 9) **Employer:** the corporate, private, or public entity that employs personnel for wages or salary (Pro Line Machining).
- 10) **Examination:** a formal, controlled, documented assessment of knowledge or skills conducted in accordance with a procedure.
- 11) **Experience:** actual performance of an NDT method conducted in the work environment resulting in the acquisition of knowledge & skill. This does not include formal classroom training, but does include laboratory and on-the-job training defined by this written practice.



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- 12) **Formal Training:** an organized and documented program of activities designed to impart knowledge and skills required to be qualified to this written practice. Formal training can be a mix of classroom, practical and programmed self-instruction as approved by the responsible Level III.
- 13) **General Examination:** a written examination addressing the basic principles of the applicable NDT method.
- 14) **Grading Unit:** a qualification specimen can be divided into sections called grading units, which do not have to be equal length or equally spaced. Grading units are unflawed or flawed and the percentage of flawed/unflawed grading units required shall be approved by the responsible Level III.
- 15) **Limited Certification:** NDT methods that are further subdivided into limited techniques to meet Pro Line Machining's needs; these are Level II certifications, but to a limited scope. A certificate for UT thickness testing only would be an example.
- 16) **Method:** one of the disciplines of NDT; for example ultrasonic testing, within which various test techniques exist.
- 17) **MT:** Magnetic Particle Examination.
- 18) **NDE:** an acronym for nondestructive examination. It is synonymous with NDT.
- 19) **NDT:** an acronym for nondestructive testing. A process that involves the inspection, testing, or evaluation of materials, components and assemblies for material's discontinuities, properties and problems without further impairing or destroying the part's serviceability. Throughout this document the term NDT applies equally to the NDT inspection methods used for material inspection, or flaw detection. Note: this acronym is synonymous with nondestructive examination (NDE).
- 20) **NDT Instructor:** an individual qualified and designated in accordance with this written practice to train or educate NDT personnel.
- 21) **OJT:** on the job training.
- 22) **Outside Agency (Organization):** a company or individual who provides Level III services and whose qualifications to provide these services have been reviewed and approved by Pro Line Machining in appointing this company or individual.
- 23) **PA:** Phased Array



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- 24) **Practical Examination:** an examination used to demonstrate an individual's ability in conducting the NDT methods that will be performed for Pro Line Machining. For practical examinations, questions and answers need not necessarily be written, but observations and results must be documented.
- 25) **Procedure:** a detailed, written instruction for conducting a nondestructive examination or certifying personnel. Method procedures shall be approved by the Level III certified in the applicable method.
- 26) **PT:** Liquid Penetrant Examination.
- 27) **Qualification:** the education, skills, training, knowledge, and experience required for personnel to properly perform to a specified NDT Level.
- 28) **Specific Examination:** A written examination to determine an individual's understanding of procedures, codes, standards, specifications, and equipment or instrumentation for an NDT method utilized by Pro Line Machining.
- 29) **Test Technique:** A category within an NDT method; for example, phased array ultrasonic examination.
- 30) **Training:** an organized program developed to impart the knowledge and skills necessary for qualification.
- 31) **UT:** Ultrasonic Testing.
- 32) **Written Practice:** a written procedure developed by Pro Line Machining that details the requirements for qualification and certification of their NDT personnel.

3.0 Nondestructive Testing Methods

3.1 Qualification and certification of NDT personnel in accordance with (IAW) this written practice is applicable to each of the following NDT methods utilized at Pro Line Machining:

- 1) Liquid Penetrant Testing (PT)
- 2) Magnetic Particle Testing (MT)
- 3) Ultrasonic Testing (UT)



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4.0 Levels of Qualification

4.1 There are six basic levels of qualification defined in terms of the skills and knowledge required for each NDT method used by Pro Line Machining:

- 1) **Trainee.** A person who is not yet certified to any level shall be considered a trainee. A person who is in the process of being initially trained, qualified, and certified. A trainee shall work with a certified individual, under the direction of a Level II or Level III. **The trainee shall not independently conduct, interpret, evaluate, or report the results of any NDT.**
- 2) **Level I.** A person qualified with the skills and knowledge to properly perform specific calibrations, specific examinations, perform specific interpretations and evaluations for acceptance or rejection and document the results, in accordance with specific approved procedures. The Level I shall be able to follow approved NDT procedures and shall receive the necessary instruction or supervision from a certified Level II or Level III individual.
- 3) **Level II.** A person with skills and knowledge qualified to set up and calibrate equipment, to conduct tests, and to interpret, evaluate, and document examination results with respect to applicable codes, standards, and specifications. The Level II shall be thoroughly familiar with the scope and limitation of the method(s) to which certified. The Level II shall be capable of directing the work and conducting OJT of Level I and Trainee personnel. The Level II shall be able to organize and report the results of NDT examinations.
- 4) **Level II Limited.** A person with the skills and knowledge to set up and calibrate equipment, to conduct tests, and to interpret, evaluate, and document results in accordance with procedures approved by a Level III in the applicable limited technique. The Level II Limited shall be thoroughly familiar with the scope and limitations of the technique to which certified and should be capable of directing the work of Trainees and Level I personnel. The Level II Limited shall be able to organize and report NDT results.
- 5) **Level III.** A person with the skills and knowledge capable of establishing and approving techniques, designating the



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particular technique to be used, and verifying the adequacy of the procedures. The individual shall develop, qualify, and approve procedures to be used. The Level III shall be responsible for the NDT operations for which qualified and assigned. The person shall be capable of interpreting and evaluating results in terms of existing codes, standards, specifications, and procedures. The Level III shall have sufficient practical background in applicable materials, fabrication, and product technology to establish techniques, and to assist in establishing acceptance criteria when none are otherwise available. The Level III shall have general familiarity with other appropriate NDT methods, as demonstrated by an ASNT Level III Basic examination or other means. The Level III, in the methods in which certified, shall also train and examine Level II, Level I, and Trainee personnel for certification in the applicable NDT methods.

- 6) **NDT Instructor.** A NDT instructor shall have the skills and knowledge to plan, organize, and present classroom, laboratory, demonstration, and/or OJT NDT instruction, training, and/or education programs in accordance with course outlines approved by the applicable Level III.

5.0 Training Programs

5.1 Training. Candidates for certification shall complete sufficient organized training to become thoroughly familiar with the principles of the specified method(s) and the practice of the applicable test technique(s) along with the typical products to be tested.

5.1.1 Minimum Training Hours. The minimum number of training hours required for Level I & Level II candidates is outlined in Appendix A.

5.1.2 Methods of Training. The organized training may include instructor-led training, self-study, virtual instructor-led training, computer-based training, or web-based training. Computer based training and web-based training shall track hours and content of training in accordance with 5.1.3.

5.1.3 Training Examinations. Training programs shall include sufficient examinations to demonstrate that the necessary information has been comprehended.



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- 5.1.4 Course Content.** The course(s) shall be based on *ANSI/ASNT CP-105 - Topical Outlines for Qualification of Nondestructive Testing Personnel* for the appropriate NDT method, plus such additional topics as deemed necessary by the applicable Level III. The sequence, content, amount of time, and depth of coverage for each topic shall be approved by the applicable Level III. Topics not related to the methods or techniques utilized by Pro Line Machining may be omitted at the discretion of the applicable Level III.
- 5.1.5 Presentation of Training.** All training shall be presented by an NDT instructor. However, the NDT instructor may use personnel with specialized expertise (for example, metallurgists, welding engineers, etc.) who are not qualified in accordance with this written practice to assist in presentation of specific information. The Level III shall in all cases be responsible for the content of the completed course.
- 5.1.6 Outside Services.** At the option of Pro Line Machining, an outside organization may be hired to perform the duties of a Level III. Pro Line Machining shall be responsible for evaluating the organization to ensure the services are in accordance with Pro Line Machining's written practice and ASNT SNT-TC-1A. The Level III of the outside organization shall be responsible for the services provided.

6.0 Experience Requirements

6.1 Experience. A candidate for certification shall have acquired the practical experience to ensure they are capable of performing the duties to the level in which certification is being sought.

6.2 Previous Training and Experience.

6.2.1 Level I, Level II & Level II Limited. A candidate's previous training and experience gained in positions and activities comparable to those of Level I, Level II, and Level II Limited prior to the establishment of this written practice may be accepted by Pro Line Machining's appropriate Level III if documented. Any claimed training or experience which is not documented shall be considered invalid.

6.2.2 Level III. Pro Line Machining shall verify and document



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the current validity of a candidate's ASNT Level III certificate or all other qualification requirements listed in 6.4.

6.3 Level I, Level II, and Level II Limited Experience

Requirements. The minimum number of hours of experience required for Level I, Level II, and Level II Limited candidates is described in Appendix A.

6.4 Level III Experience Requirements.

6.4.1 Individual has a baccalaureate degree (or higher) from an ABET accredited four-year college or university curriculum with a degree in engineering or science, plus one additional year experience beyond the Level II requirements in NDT in an assignment comparable to that of a Level II in the applicable NDT method(s), or:

6.4.2 Individual has completed with passing grades at least two years of engineering or science at a university, college, or technical school, plus two additional years of experience beyond the Level II requirements in NDT in an assignment at least comparable to that of a Level II in the applicable NDT method(s), or:

6.4.3 Individual has four years experience beyond the Level II requirements in NDT in an assignment comparable to that of a Level II in the applicable NDT method(s).

6.5 NDT Instructor.

6.5.1 Criteria. An NDT instructor shall meet at least one of the following criteria:

- 1) Possess a current ASNT NDT Level III certificate in the NDT method to be taught;
- 2) Have academic credentials at least equivalent to a B.S. in engineering, physical science, or technology, and possess adequate knowledge in the NDT method to be taught; or
- 3) Be a graduate of a 2 year school of science, engineering, or NDT and have 5 or more years of experience as an NDT Level II, or equivalent, in the NDT method to be taught; or
- 4) Have 10 or more years of NDT experience as an NDT Level II, or equivalent, in the NDT method to be taught.

6.5.2 Designation. The NDT instructor shall be designated by the applicable Level III.



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7.0 Examinations

7.1 Vision Examinations.

7.1.1 Near-Vision Acuity*. Prior to certification, NDT personnel shall be examined to ensure that they have natural or corrected near-distance acuity in at least one eye such that the individual is capable of reading a minimum of Jaeger Number 2 or equivalent type and size letter at the distance designated on the test chart, but not less than 12 inches on a standard Jaeger test chart. The ability to perceive an Ortho-Rater minimum of 8 or similar test pattern is also acceptable. Results of this examination shall be documented on Pro Line Machining's Annual Vision Exam Verification Form.

*While Jaeger Number 2 is the minimum requirement, Pro Line Machining prefers Jaeger Number 1 or equivalent if possible. Equivalent eye examination results for Jaeger J-1 visual acuity are: Snellen 20/22; Times Roman 3.5 point text; OrthoRater #9; or Titmus (SAB-1, SAL-1 or SAR-1) #10.

7.1.2 Color Contrast Differentiation. Prior to certification, initial color contrast differentiation by the candidate will be determined by administering a 24 plate color vision test by a Level III. If color differentiation deficiencies are noted, the applicable Level III shall have the candidate demonstrate the ability to differentiate among the colors or shades of grey used in the method. The results of these tests shall be documented on Pro Line Machining's Annual Vision Exam Verification Form.

7.1.3 Frequency. Vision examinations shall be administered annually, except that color differentiation examinations need be repeated only at each recertification (five-year intervals). Vision examinations shall expire on the last day of the month of expiration.

7.1.4 Administration. Vision examinations shall be administered in accordance with this procedure, and by personnel approved by a Level III designated by Pro Line Machining.



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7.2 Level I and Level II Examinations.

7.2.1 General. The general examination shall be approved by the applicable Level III and should address the basic principles of the applicable method(s). Administration of the examination shall be in accordance with paragraph 8.1 of this written practice and shall be closed book. Reference materials such as charts, formulas, tables, and graphs may be provided by the Level III. Questions shall be developed which represents a cross section of the body of knowledge, contained in ASNT CP-105 applicable to each method and NDT Level. The minimum number of questions required for each method and level is listed in Table 1. Questions used in general examinations for NDT Level I and Level II personnel shall be similar in type and difficulty to those published by ASNT, but shall not be used verbatim.

7.2.2 Specific. The specific examination shall be approved by the applicable Level III. Administration shall be in accordance with paragraph 8.1 of this written practice. The Level III shall determine whether appropriate procedures, specifications, standards, or code sections will be provided. The examination shall address various examples of equipment, procedures, and test techniques that the candidate may use in the performance of assigned duties. The specific examination shall also cover the specifications or codes and acceptance criteria used in Pro Line Machining's NDT procedures. The minimum number of questions required for each method and level is listed in Table 1.

7.2.3 Practical. The practical examination shall be approved by the applicable Level III. Administration shall be in accordance with paragraph 8.1 of this written practice. The practical exam shall consist of the following:

- 1) **Level I.** The candidate shall demonstrate proficiency, familiarity with, and ability to operate the necessary NDT equipment using the applicable NDT method to examine at least one **flawed** test sample for each technique to be used in the candidate's job and by documenting the results of the test. The test samples shall be representative of the products that the candidate will encounter in performing their job functions.



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- 2) **Level II.** The candidate shall demonstrate proficiency by performing the applicable NDT method in examining at least one **flawed** sample per technique and a minimum of two samples per method and by interpreting, evaluating, and documenting the results of the examination. The test samples shall be representative of the products that the candidate will encounter in performing their job functions.

7.3 Level III Examinations.

7.3.1 Initial Requirement. Prior to Pro Line certification examinations, the candidate shall hold a current ASNT NDT Level III certificate with a currently valid endorsement for each method for which Pro Line Machining certification is sought, or shall have met the experience requirements of 6.4.

7.3.2 Basic Examination. This exam is required only once if more than one method examination is taken. The minimum number of questions that shall be given is as follows:

- 1) Fifteen (15) questions relating to understanding the SNT-TC-1A document.
- 2) Twenty (20) questions relating to applicable materials, fabrication, and product technology.
- 3) Twenty (20) questions that are similar to published Level II questions for the applicable NDT methods.

7.3.3 Method Examination (for each method). The minimum number of questions on the Method examinations is as follows:

- 1) Thirty (30) questions relating to fundamentals and principles that are similar to published Level III questions for each method.
- 2) Fifteen (15) questions relating to application and establishment of techniques and procedures that are similar to published Level III questions for each method.
- 3) Twenty (20) questions relating to capability for interpreting codes, standards, and specifications relating to the method.

7.3.4 ASNT NDT Level III Exemption. A valid endorsement on an ASNT NDT Level III certificate fulfills the examination criteria described in 7.3.2 and 7.3.3 for each applicable NDT method.

7.3.5 Specific Examination (for each method). Pro Line



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Machining shall administer a written examination of at least 20 questions relating to specifications, equipment, techniques, and procedures to test the candidate's comprehension of Pro Line Machining's NDT-related requirements. Copies of the applicable specifications or standards shall be available as reference material during the examination. Pro Line Machining will delete the specific examination if the candidate has a valid ASNT NDT Level III certificate in the applicable method(s) and if documented evidence of experience exists, including the preparation of NDT procedures to codes, standards, or specifications, and the evaluation of test results.

7.3.6 Practical Examination.

- 1) The candidate shall prepare an NDT procedure appropriate to Pro Line Machining's needs; however, if documented experience demonstrates that the candidate has previously prepared acceptable NDT procedures in the method using the specifications, codes, and standards that are applicable to Pro Line Machining, a written practical examination is not required.
- 2) If the Level III will be required to perform tests or evaluate test results, the practical examination shall include the same demonstrations of the candidate's ability to perform the activity(ies) as required by the applicable Level II practical examination(s).

8.1 Administration and Grading.

8.1.1 Responsibilities.

8.1.1.1 Level I and Level II Examinations. The applicable Level III shall be responsible for the administration and grading of examinations for Level I and Level II personnel for those methods in which the Level III is qualified. For the practical examination, the individual administering the examination must be a Level III in the respective test method.

8.1.1.2 Level III Examinations. Pro Line Machining shall be responsible for having an individual possessing a current ASNT Level III certificate develop, administer, and



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grade Level III specific and practical examinations when required.

8.1.1.3 The administration and grading of multiple-choice questions may be delegated by the Level III, if so documented.

8.1.2 Employer Examinations. For each Pro Line Machining administered certification examination, each candidate shall achieve a grade of at least 70% on any one examination and an average grade of 80% on all three (3) examinations to be eligible for certification. All certification examinations shall have equal weight in determining the average grade.

8.1.2.1 Outside Agency Examinations. If an examination is administered and graded for Pro Line Machining by an outside agency and the outside agency issues grades of pass or fail only, on a certified report, then Pro Line Machining will accept the pass grade as 80% for that particular examination.

8.1.3 Practical Examinations.

8.1.3.1 For all practical examinations, all applicable discontinuities and/or conditions which the candidate is expected to find and/or evaluate must be specified and documented prior to administration of the examination.

8.1.3.2 A requirement for passing the Level I, II, or III practical examination shall be the detection of the discontinuities and/or conditions previously specified by the Level III responsible for preparing that examination.

8.1.4 Level I Practical Examinations. The applicable Level III shall use a written checklist with at least ten (10) different checkpoints in administering and grading Level I practical examinations. This checklist shall address the following items: proficiency in use of the equipment and technique, proper adherence to the procedure, test sequence, calibrations, materials, documentation and extent of examinations. If the Level I will interpret or evaluate results then the checklist shall include these items. The candidate shall detect all discontinuities



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and conditions specified by the Level III. Note: While it is normal to score the practical examination on a percentile basis, practical examinations shall contain check points that failure to successfully complete will result in failure of the examination.

8.1.5 Level II Practical Examinations. The applicable Level III shall use a written checklist with at least ten (10) different checkpoints in administering and grading Level II practical examinations. The checklist shall address at least the following items: proficiency in use of techniques and equipment, proper adherence to procedure, test sequence, calibrations, and materials; satisfactory detection and location of discontinuities; proper extent of examination; and the accuracy and completeness of interpretations, evaluations and documentation of the activities and test results. The candidate shall detect all discontinuities and conditions specified by the Level III. Note: While it is normal to score the practical examination on a percentile basis, practical examinations shall contain check points that failure to successfully complete will result in failure of the examination.

8.1.5.1 Phased Array Ultrasonics. Flawed samples used for practical examinations should be representative of the components and/or configurations that the candidates would be testing under this endorsement and approved by the applicable Level III.

8.2 Reexamination. Candidates who fail to attain the required passing grade must receive additional documented training, or wait at least 30 days for reexamination. The training shall address the deficiencies which caused failure. A candidate shall not be reexamined using the examination or specimen previously failed or both.

8.3 Administration of Examinations. In no case shall an examination be prepared or administered by the individual being examined or by a subordinate.

8.4 Administration of Level III Examinations. The Pro Line Machining representative who administers the Level III specific and practical examinations shall possess a current ASNT Level III certificate in the method for the examination that is administered and shall be knowledgeable and familiar with the standards, specifications, and products used or made



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by Pro Line Machining.

9.0 Expiration, Suspension, Revocation, and Reinstatement of Employer Certification.

- 9.1 Expiration.** Individual certifications shall expire:
- 9.1.1** when employment with Pro Line Machining is terminated;
 - 9.1.2** on the last day of the month of expiration at the end of 5 years for Level I and Level II individuals;
 - 9.1.3** for Level III individuals, when the ASNT Level III certificate has expired, or on the last day of the month of expiration at the end of 5 years if the individual is not an ASNT Level III in the applicable method, but certified as a Pro Line Machining Level III in accordance with 6.4 and 7.3.
- 9.2 Suspension.** Pro Line Machining shall suspend an individual's certification if:
- 9.2.1** the vision examination interval exceeds one (1) year. Certification is reinstated concurrently with passing the vision examination; or
 - 9.2.2** the individual has not performed the duties in the method(s) for which certified during any consecutive 12-month period; or
 - 9.2.3** the individual's performance is determined to be deficient in the required method or technique for specific documented reasons; or
 - 9.2.4** for Level III personnel, when the ASNT Level III certificate has not been renewed.
- 9.3 Revocation.** Pro Line Machining shall revoke an individual's certification when:
- 9.3.1** the individual has not performed the duties in the method(s) for which certified during any consecutive 24-month period; or
 - 9.3.2** for Level III personnel, the ASNT Level III certificate has been revoked, or
 - 9.3.3** an individual's conduct is deemed by Pro Line Machining to be or have been unethical or incompetent.
- 9.4 Reinstatement.**
- 9.4.1 Suspended Certifications.** Reinstatement of suspended certifications for Level I and Level II personnel shall be determined by the applicable Level III. Reinstatement of suspended Level III certifications shall be determined by



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Pro Line Machining.

9.4.2 Expired or Revoked Certifications. Certifications which may have expired or have been revoked may only be reinstated by complying with Section 7, 9.4.3, or 10.0. Recertification per 9.4.3 is only allowed when Pro Line Machining's certifications expired due to termination of employment. Such reinstatement of certification shall only be for the period of time remaining on the original certification.

9.4.3 Expired for Termination of Employment. A Level I, Level II, or Level III whose certification has expired due to termination of employment may be reinstated to the former NDT level, without a new examination, providing all of the following conditions are met:

9.4.3.1 Pro Line Machining has maintained the personnel qualification records required in Section 11.

9.4.3.2 The employee certification did not expire during termination.

9.4.3.3 The employee is being reinstated within six (6) months of termination.

10.0 Recertification.

10.1 Recertification for all Levels. All levels of NDT personnel shall be recertified periodically in accordance with one (1) of the following criteria:

10.1.1 Level I and Level II

10.1.1.1 Evidence of continuing satisfactory technical performance.

10.1.1.2 Shall be recertified by reexamination in those portions of the examinations in Section 7, when deemed necessary by the applicable Level III.

10.1.2 Level III. Level III personnel shall be recertified by Pro Line Machining every 5 years by verifying that the individual's ASNT Level III certificate is current in each method for which recertification is sought, or if the individual is not an ASNT Level III in the applicable method, recertified as a Pro Line Machining Level III in accordance with 6.4 and 7.3.

10.1.3 New Techniques. When new techniques are added to this written practice, Level III personnel shall receive applicable training, take applicable examinations and



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obtain the necessary experience such that the Level III meets the requirements of the new techniques in Appendix A, prior to the next recertification date, in the applicable method.

10.2 Technical Performance Evaluation. NDT personnel may be reexamined any time at the discretion of Pro Line Machining and have their certificate(s) extended or revoked. The technical performance of Level I and II personnel should be evaluated and documented by a Level III at intervals no greater than every five (5) years. The evaluation and documentation shall follow the format and guidelines described in section 7.2.3.

10.3 Personnel Certified to Previous Revisions or SNT-TC-1A Editions. Personnel certified to previous L&H Industrial written practice revisions and ASNT SNT-TC-1A editions are considered exempt from any new changes and will remain certified in the documented method(s) and Level(s) for the period of time remaining on the original certification. All recertification is to be done in accordance with 10.1 to the most recent L&H Industrial written practice revision and ASNT SNT-TC-1A edition.

11.0 Records

11.1 Responsibility for Documentation. Pro Line Machining shall document certification in accordance with this written practice.

11.2 Certification Record. The certification record shall include at least the following information:

11.2.1 Name of Certified Individual.

11.2.2 Level of certification and NDT method and/or technique, as applicable.

11.2.3 Educational background and experience of certified individuals.

11.2.4 Statement indicating satisfactory completion of training in accordance with this written practice.

11.2.5 Results of the vision examinations prescribed in 7.1 for the current certification period.

11.2.6 Composite grade(s) or suitable evidence of examinations that the individual has taken.

11.2.7 For Level III personnel, a copy of the candidate's ASNT Level III certificate, or other suitable evidence of satisfactory qualifications when such qualifications are used in lieu of specific examinations outlined in 7.3.



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- 11.2.8 Signature of the Level III that verified qualifications of candidate for certification.
 - 11.2.9 Dates of certification, and/or recertification along with any events such as: expiration, suspension, revocation, and reinstatement.
 - 11.2.10 Certification expiration date.
 - 11.2.11 The signature, printed name, and title of L&H Industrial's certifying authority(ies).
- 11.3 Contents of Documentation.** Pro Line Machining's certification documentation shall include at least a training record, an experience record, a record of previous experience (if applicable), employee's most recent examination scores, and a vision examination record.
- 11.3.1 NDT Training Record.** A documented history of the employee's training shall be maintained which identifies: NDT training received by the individual, the organization providing the training, dates of the training, hours of training, evidence of satisfactory completion, and the instructor's name.
 - 11.3.2 NDT Experience Record.** A record which identifies the individual's experience performing various nondestructive tests shall be maintained for purposes of verifying initial certification experience.
 - 11.3.3 Record of Previous Experience.** Documented evidence of individual's previous NDT training and experience shall be maintained if previous training and experience are used to satisfy any part of the requirements of this written practice.
 - 11.3.4 Visual Examination Records.** Current records of vision examinations required by 7.1 shall be maintained.



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Table 1: Minimum Number of Examination Questions

Method	General		Specific	
	Level I	Level II	Level I	Level II
Magnetic Particle Testing (MT)	40	40	20	20
Liquid Penetrant Testing (PT)	40	40	20	20
Ultrasonic Testing (UT)	40	40	20	20
Ultrasonic Testing Phased Array				30
Ultrasonic Digital Thickness Measurement (Numeric Output Only)		20		10
Ultrasonic Straight Beam (A-Scan) Measurement		30		15



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Appendix A: Initial Training and Experience Requirements for Level I & Level II

Examination Method	Level	Technique	Required Training (Hours)	Required Experience		
				Minimum Hours in Method	Total Hours in NDT ^G	
Magnetic Particle Testing (MT)	I	[REDACTED]	12	70	130	
	II		8	210	400	
Liquid Penetrant Testing (PT)	I		4	70	130	
	II		8	140	270	
Ultrasonic Testing (UT)	I*		40	210	400	
	II*		40	630	1200	
	II ^F		Phased Array	80	160	N/A
	II* Limited		Digital Thickness Measurement (Numeric Output Only)	8	40	N/A
	II* Limited		Straight Beam (A-Scan) Thickness Measurement	24	175	N/A

*Individual must have a current CWI to participate in Ultrasonic Level I and II training, but not Level II Limited certifications.

Notes:

- A. Experience shall be based on the actual hours worked in the specific method.
- B. A person may be qualified directly to Level II with no time as a certified Level I, providing the required training and experience consists of the sum of the hours for Level I and Level II.
- C. The required minimum experience shall be documented by method and by hour with supervisor or applicable Level III approval.
- D. While fulfilling total NDT experience requirement, experience may be gained in more than one method, however, the minimum hours must be met for each method.
- E. To qualify for a single method, the hours in the Total Hours column must be satisfied.
- F. Ultrasonic Phased Array technique requires completion of Level I and Level II Ultrasonic Testing training and experience as a prerequisite.



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- G. Required Experience documented for the Total Hours in NDT column can also include other quality-related job activities. Examples of quality-related job activities include, but are not limited to: auditing parts, developing NDT and welding procedures, research and development projects, visual weld inspection, administering welder certification tests, double-checking other's work, and participation in quality investigations such as: non-conformance, root cause analysis, and failure analysis.
- H. For purposes of the practical examinations described in paragraph 7.2.3, the techniques required to be demonstrated are shown in Appendix A. Where no techniques are listed in Appendix A, Pro Line Machining and the applicable Level III must determine the techniques required for their particular needs in that method and document the technique(s) used during the candidate's practical test.
- I. For Level III certification, the experience should consist of the sum of the hours for Level I and Level II, plus the additional time specified in 6.4 as applicable.