



161Thorn Hill Road
Warrendale, PA 15086-7527

AUDIT CRITERIA

AC7114 REV L

Issued 1997-07

Revised 21-SEP-2017

Superseding AC7114 Rev K

TO BE USED ON AUDITS STARTING ON OR AFTER 31-DEC-2017

Nadcap
AUDIT CRITERIA FOR
NONDESTRUCTIVE TESTING (NDT) SUPPLIERS ACCREDITATION PROGRAM

EDITORIAL CHANGE 7DEC2017
Added AQS Verification Questions 3.2, 3.2.1, 3.2.2

1. SCOPE

These Audit Criteria are intended for use to survey a facility seeking accreditation from Nadcap for the NDT process. This criteria is supplemented by Audit Criteria for specific NDT processes to be accredited and shall be used with the applicable Subscriber Supplemental Checklists to ensure that NDT suppliers meet the requirements for Nadcap accreditation in Nondestructive Testing.

The purpose of this Audit Criteria is to provide a means to verify and document that systems are in place to control the process and that the process procedures are being followed.

The Nadcap NDT Task Group recognizes ISO17025 (NDT Test Houses only) and/or any Nadcap recognized quality system in accordance with PD 1100. If the supplier has been audited and approved by Nadcap or any other Nadcap recognized agency for registration with AS9100 / EN9100, then no further assessment for quality systems will be required. Although specific Audit Criteria for evaluation of the general quality system is not included within the text of this checklist, the requirements of AC7004 do form a part of the standard used in the Nadcap NDT Accreditation program. As such, auditors may identify and record nonconformances related to the quality system. The supplier must address these nonconformances in order to obtain Nadcap Accreditation.

2. GENERAL INFORMATION

References:

PRI operating procedures provide that "This report is published by PRI to advance the state of technical, engineering, and quality sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising there from, is the sole responsibility of the user."

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SAE Publications: Available from SAE, 400 Commonwealth Drive,
Warrendale, PA 15086-0001

AS9100	Quality Systems Aerospace model for Quality Assurance in Design, Development, Production, Installation and Servicing
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PRI Publications: Available from PRI, 161 Thorn Hill Road, Warrendale,
PA 15086-0001

PD 1100	Nadcap Program Requirements
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OP 1103	Definitions
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AIA Publications: Available from Aerospace Industries Association of
American, Inc., 1250 Eye Street, N.W., Washington, DC 20005-3922

NAS-410	NAS Certification & Qualification of Nondestructive Test Personnel
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ISO Publications: Available from the American National Standards
Institute, 11 West 42 Street, New York, NY 10036

ISO 9100	Quality Systems Aerospace model for Quality Assurance in Design, Development, Production, Installation and Servicing
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ISO 10012-1:1992	International Standard Quality Assurance Requirements for Measuring Equipment – Part 1 Metrological Confirmation Systems for Measuring Equipment
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ANSI/NCSL Z540	Calibration Laboratories, and Measuring and Test Equipment – General Requirements
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EN Publications: Available from BSI, 389 Chiswick High Road, London
W4 4AL. UK

EN 4179	Aerospace Series – Qualification and Approval of Personnel for Nondestructive Testing
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EN ISO Publications: Available from BSI, 389 Chiswick High Road,
London W4 4AL. UK

EN ISO 9000 Series	Quality Management and Quality Assurance Standards – Guidelines;
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EN ISO/IEC 17025

General Requirements for the
Competence of Testing and
calibration Laboratories.

2.1 Instructions for the Auditors

In completing this assessment, auditors are instructed to respond with a "Yes" or "No" to address compliance with each statement of requirement. For any negative responses, the auditor must clearly indicate in the NCR if the "No" reflects noncompliance with respect to existence, adequacy, and/or compliance. Existence relates to evidence of a documented procedure or policy, adequacy relates to the completeness of the procedure or policy and compliance relates to evidence of effective implementation. This checklist includes the use of the word "shall" which indicates a clear requirement that must be met at all times. The word "may" indicates a possible resolution to a requirement or one recommended method to achieve a given requirement, but does not represent the only way to meet that requirement. In addition the checklist includes the term "Compliance Assessment Guidance". This term is used to reflect the Task Groups expectation when answering the checklist question as YES or NA.

The auditor must verify the list of procedures provided by the supplier at the time of the audit. Any corrections or updates to the list must be identified using notes inserted at the applicable criterion.

All negative responses require a Nonconformance Report (NCR). Not Applicable (NA) responses do not require an explanation unless otherwise noted. There is only one plausible reason for an NA, which is, that a particular operation or issue is not being used at the supplier. There are no NA's simply for a lack of a customer requirement. If a system is in use, then all questions pertaining to that system are applicable. If verification of results require documentation it shall be so noted in this checklist.

The audit results shall not include any customer proprietary information. Technical information on parts which have been designated "Export Controlled – License Required", (EC-LR) cannot be input into eAuditNet. If auditors have any questions about this, they should contact the Staff Engineer for directions.

When a satellite audit is conducted, the AC7114 checklist shall be completed as normal for the main facility with all relevant attachments.

For the satellite facilities, the following applies:

- a. AC7114 – Attach auditor cover letter/notes, subscriber matrix, NCR report form and NDT personnel listing.
- b. AC7114 – Section 3.0 add the following note: "This is a satellite audit to audit #XXXXXX, only the relevant sections of this checklist have been completed".

- c. Complete all of Section 3 of AC7114.
- d. AC7114S – If no new subscriber supplements are applicable to the satellite then add the following note to section 3.0: “This is a satellite audit to audit #XXXXXX, as no new subscriber supplements are applicable none of this checklist has been completed”.
- e. AC7114S –If new subscriber supplements are applicable for the satellite then complete the entire checklist.
- f. Complete all applicable method checklists and supplemental criteria.
- g. Confirm that all requirements for satellite facilities are met and reference within the auditor cover letter. If the requirements are not met, the auditor shall inform scheduling immediately.

For all other invoked checklists, the auditor is required to complete them in full attaching the appropriate documentation in the relevant sections.

When an addition to scope audit is conducted, the AC7114 checklist shall be completed as following:

- a. AC7114 – attach auditor cover letter/notes, subscriber matrix, NCR report form and NDT personnel listing.
- b. Complete all of AC7114.
- c. AC7114S – If no new subscriber supplements are applicable to the add scope audit then add the following note to section 3.0: “This is an add scope audit to audit #XXXXXX, as no new subscriber supplements are applicable none of this checklist has been completed”.
- d. AC7114S –If new subscriber supplements are applicable for the add scope audit then complete the entire checklist.
- e. Complete all applicable method checklists and supplemental criteria.

2.2 Instructions for the Supplier

2.2.1 Prior to the Audit

The supplier must complete a self-audit using AC7114, all applicable slashsheets and applicable supplements in preparation for this audit. All internally identified nonconformances should be corrected prior to the actual audit. Using the audit checklists, for each applicable question, provide reference to the procedure and paragraph where the requirement is addressed. Nonconformances identified as part of the Nadcap audit with potential product impact may, at the Nadcap NDT Task Group's discretion, require a Verification Corrective Action (VCA) audit at the supplier's expense. Supplier shall upload self-audit checklists into eAuditNet no less than 30 days prior to the scheduled audit.

- 2.2.1.1 Supplier to forward and/or upload via eAuditNet the following to the assigned auditor no less than 30 days prior to the scheduled audit, or as directed otherwise by the auditor:
- NDT Data:
- 2.2.1.1a List of processes to be audited (based upon audit scope).
- 2.2.1.1b Copy of applicable NDT method process procedure(s) and written practice for qualification and certification.
- 2.2.1.1c Copy of procedures for control of inspection status identifiers, contract review (as it applies to NDT), specific NDT procedures for process control checks (if not included in process procedures), annual maintenance of NDT personnel and calibration (as it applies to NDT equipment)
- Unless otherwise specified by the auditor, complete and provide at the time of the audit:
- 2.2.1.1d List of Approved NDT Personnel including Level 3's. Supplier is to use NDT Attachment AC7114-A (or another format as long as all of the identified information is present)
- 2.2.1.1e NDT material and equipment list for each method using Nadcap NDT attachments (AC7114-A, AC7114/1A, AC7114/2A, AC7114/3A, AC7114/4A, AC7114/5A, AC7114/6A, AC7114/7A, AC7114/8A, AC7114/9A)
- 2.2.1.1f Subscriber Matrix of Nadcap Subscribers that have approved the supplier for NDT. This approval listing must be accurate as it may be the basis for the scope of the audit. Failure to provide accurate information will be cause for a follow-up audit..
- The format for providing the different required lists may be accessed via the Electronic Database or may be generated by the supplier and attached electronically to the audit package.
- 2.2.2 During the Audit
- The supplier shall provide for an in-briefing with the auditor. Key members of the applicant's staff should attend the in-briefing so the audit purpose, methods and assessment processes can be discussed. These may include the Responsible Level 3, the Quality Manager, internal audit personnel and others as deemed necessary by the auditor or supplier.
- The auditor and supplier shall confirm and agree to the scope of the audit via the scope verification screen on eAuditNet. In addition to scope verification, the information will be used to complete the

Subscriber matrix. The Subscriber matrix is used to identify all the Nadcap Subscribers for which the supplier is approved.

Working space for the auditor with desks or tables, chairs, telephone, etc., shall be made available.

A final out-briefing will be conducted at the completion of the audit. Each nonconformance and observation will be reviewed at least daily and the supplier will be given the opportunity to discuss proposed corrective action or to provide any additional information. The auditor shall complete an audit summary page identifying / referencing the nonconformance(s) recorded. This summary page shall be signed both by the auditor and supplier representative. If the supplier is not in agreement with the results of the audit, this shall be identified accordingly on the sheet. Note: audits with 0 nonconformances shall also include a signed summary sheet.

Note: The PRI Staff Engineers or Nadcap NDT Task Group may, upon review, change the auditor's determination of a finding.

Subscriber matrix, NCR summary page, can be found on eAuditNet, under Audit Checklist, NDT, NDT Checklist Attachments.

2.2.3

Following the Audit

In accordance with Nadcap procedures, the supplier has 21 calendar days from the time the audit is released from EC review to submit a corrective action plan, identify effectivity dates for each NCR and when applicable, objective evidence. This response shall be entered directly into PRI's Electronic Database. The response must address the root cause of the nonconformance from a systems management approach, the immediate action taken to resolve the discrepancy and the actions taken or to be taken to preclude recurrence.

PRI staff or the Nadcap NDT Task Group may, after review of the audit report, require additional information or may find cause to issue additional findings. Note: Final authority over the audit report, acceptability of corrective actions and accreditation recommendation rests with the Nadcap NDT Task Group.

3. INFORMATION**3.1 General Information**

Nature of Business: _____

☐ In House Products (Captive House) ☐ Accepts Outside Work

Total Number of Employees	Number of QA Personnel (EXCLUDE NDT)	Number of Certified NDT Personnel

3.1.1 Audit Contacts

Identify the Primary Contacts for the Audit (Name/Title)

Name	Title

3.1.1.1 Were the applicable procedures, exams and other technical data available in English per OP 1105? YES NO

Compliance Assessment Guidance:

Unless an alternative language is agreed upon by the assigned Auditor, the following items shall be translated in writing prior to the audit:

- *NDT process procedure(s) and NDT written practice.*
- *All NDT qualification examinations, or examination question database used, which are not administered by ASNT, ISO9712 or an National Aerospace NDT Board (NANDTB).*

During the audit, the company shall provide verbal or written translations as required to assure the Auditor's understanding and proper assessment for all technical data such as:

- *All other procedures referenced in the applicable Nadcap NDT audit checklists which are not listed above, which require review by the Auditor.*
- *NDT personnel training and certification records*
- *Gauge/Equipment certifications*
- *NDT equipment calibration records*
- *Vision records and results*
- *Internal NDT audit and annual maintenance records*

NOTE: *If the choice to translate verbally results in the Auditor not being able to verify compliance for all required audit checklist criteria, then an NCR will be issued.*

3.1.1.2 Additional Information

Any additional audit notes (any NCR's of significance, additional contact personnel info, etc) to be provided below or may be supplied via auditor memo / cover letter attached to this audit.

3.1.1.3 Applicable Nadcap Subscribers

Attach Nadcap Subscriber Matrix

- If a supplier does not process to Subscriber specifications and only industry standards / own internal standards (such as a design and make supplier), then this shall be identified accordingly on the matrix, next to the applicable Subscriber.*
- It is the suppliers responsibility to ensure the applicable Subscribers are identified on the matrix. If the supplier is uncertain of which Subscribers / Supplements that apply, they shall get in contact with that Subscriber. For any additional clarification contact the PRI Staff Engineer.*

3.1.1.4 NCR Summary

Attach NCR Summary page. Note: If supplier is not in agreement with the audit results, this shall be identified accordingly on the NCR summary page.

3.2 Quality Systems Approvals

Enter applicable data below from actual certificate to identify the quality system approval(s)

Compliance Assessment Guidance: Review OP 1104 Audit Scheduling, as failure to provide a valid quality system certificate may result in failure of the audit and/or suspension/withdrawal of accreditation.

Auditing/Certifying Agency	Audit Criteria	Certificate Issue Date	Certificate Expiration Date

- 3.2.1 Does the name and address of the facility match the information on the certificate? YES NO
- 3.2.2 The above certificate/information has been reviewed, recorded in this checklist, and verified by the auditor.
- 3.3 Corrective Actions
- 3.3.1 For re-accreditation audits, were corrective actions from the previous audit implemented? YES NO NA
- Compliance Assessment Guidance: Verification of corrective actions taken as a result of nonconformances identified during the previous audit will be conducted by the auditor. In addition, the auditor shall verify corrective actions associated with a previous audit that resulted in "failure". The auditor shall use investigative means to assure these are implemented.*
- 3.3.2 Does the suppliers corrective action system, as it applies to the NDT area, ensure that the required changes in procedures resulting from corrective action are implemented and effective? YES NO
- 3.4 Did the Auditee make a copy of their completed self-audit available to the auditor at least 30 days prior to the audit- utilizing the version of the checklist(s) applicable to this audit? YES NO
- Compliance Assessment Guidance: Nadcap recommends the self-audit be performed 90- 120 days prior to the scheduled audit. In the event of checklist revisions, Nadcap publishes the checklist(s) and sends out a notification 90 days prior to the checklist(s) becoming effective. In this case, an audit against the changes is acceptable if it supplements the existing self-audit performed prior to the release of the revised checklist(s).*
- 3.4.1 For each question in the checklist, has the supplier identified where the means of compliance or evidence of compliance may be found? YES NO
- Compliance Assessment Guidance: Compliance or evidence of compliance can be the procedure, checklist, physical location of evidence, etc.*

3.4.2	Does the self-audit include one compliance job per method?	YES	NO
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4. NDT QUALITY SYSTEM REQUIREMENTS

4.1 Customer Requirements

4.1.1	Has a Level 3 been given accountability for identifying and assuring implementation of customer NDT requirements for the following?		
	Review of NDT requirements	YES	NO
	Sequence of NDT operations	YES	NO
	NDT procedure development and approval	YES	NO
	NDT technique development/review and approval	YES	NO
	Training of NDT personnel	YES	NO
	Examination of NDT personnel	YES	NO

Compliance Assessment Guidance: The supplier shall identify those accountable for identification and implementation of customer NDT requirements. The Level 3 in the method shall review NDT requirements and assure the proper sequence for NDT operations is achieved as specified by the appropriate process standard and/or drawing. Verification of proper sequencing may be accomplished by one of the examples noted below, but is not limited to these options:

- 1) The Level 3 signature on the routing and/or checklist, approving the sequence.*
- 2) Use of a sequence template for specific product, or family of product, which has been approved by the Level 3.*
- 3) Approval of part drawings which include the sequence of operations by the Level 3.*

The Level 3 shall be responsible for NDT procedure and/or technique development, review and subsequent approval. The Level 3 shall ensure that NDT personnel are properly trained and examined in accordance with the appropriate standard.

4.2 Procurement

4.2.1	Is there a procedure in place to ensure that all required customer approvals are obtained prior to performing NDT on customer hardware?	YES	NO	NA
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Compliance Assessment Guidance: Compliance may be in a high level contract review or other quality procedure and not necessarily in an NDT procedure. The procedure must be documented. Question would only be NA for those suppliers not required to hold any specific customer approval.

4.2.1.1	Is there evidence that all required customer approvals are current for all of the NDT methods being audited?	YES	NO	NA
	<i>Compliance Assessment Guidance: Question would only be NA for those suppliers not required to hold any specific customer approval.</i>			
4.2.2	Is there a procurement procedure to ensure that Prime contractor requirements are adequately imposed on the sub-tier supplier that includes, but is not limited to, calibration services, cleaning/etching facilities, process control tests, materials and equipment and inspection facilities as related to NDT?	YES	NO	NA
	<i>Compliance Assessment Guidance: The procedure shall address flow-down of the specification(s), or standard(s), to which services or materials are procured, certification requirements, accuracy, range and any other data pertinent to justify acceptance. NA applies if no procurement, as defined, is performed.</i>			
4.2.2.1	Is there evidence of compliance to the procedure?	YES	NO	
4.3	Internal NDT Audits			
4.3.1	Is there a procedure requiring an annual internal audit of the NDT System and does it address a review of the NDT inspection process, the associated documentation, personnel certification records, NDT process procedure adequacy and equipment?	YES	NO	
4.3.2	Does the annual internal audit include a review of the NDT inspection process, the associated documentation (e.g. planning, travelers and inspection certifications), personnel certification records, NDT procedures and equipment to determine adequacy and completeness?	YES	NO	
4.3.3	Is there evidence that the employer has defined the requirements for personnel performing technical NDT audits, surveys, or assessments (internal and external) to have the training, skills, and knowledge in the applicable method(s)?	YES	NO	NA
	<i>Compliance Assessment Guidance: This requirement shall be addressed in the company written practice either in detail or by reference to another procedure in the written practice.</i>			
4.4	Personnel - Technical Proficiency			
4.4.1	Is there a procedure defining annual maintenance and is it approved by the Responsible Level 3?	YES	NO	
	<i>Compliance Assessment Guidance: This requirement shall be addressed in the company written practice either in detail or by reference to another procedure in the written practice.</i>			
4.4.2	Is there a documented annual review in each method the individual is certified to process and inspect hardware?	YES	NO	

Compliance Assessment Guidance: The auditor shall verify that the documentation utilized is adequate to indicate that parts were processed and/or evaluated per the specified requirements. This requirement applies to all individuals certified to process hardware including Level 3's. A practical exam may replace the review in the year of recertification.

Documentation of the review shall include the following at a minimum: name of reviewee, name of reviewer, process criteria, acceptance criteria (if applicable), part identification (e.g., part number, serial number, nomenclature), NDT process utilized (PT/MT/UT/RT/ET), disposition of reviewee (if applicable), evaluation of reviewee by reviewer and date of review.

4.4.3	Is this review performed by the Level 3 or designee (minimum of Level 2 qualified) in the method being reviewed and records retained?	YES	NO
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Compliance Assessment Guidance: The review shall include the ability of the individual to process hardware in accordance with approved procedures when certified, evaluate and disposition hardware in accordance with customer requirements. Documentation of such reviews shall be maintained on file for review. Nadcap audits cannot be used as a annual maintenance. Supplier is responsible for maintaining the most current record on file for each individual approved to process and / or inspect hardware in each method

4.5	NDT Inspection Status
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4.5.1	Is there a procedure addressing the method to be used for control and identification of NDT inspection status?	YES	NO
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Compliance Assessment Guidance: Identifiers may be in the form of signatures, initials, stamps, clock numbers or any other method that can be controlled.

4.5.2	Does the procedure address the requirements for a record to be maintained for the issuance, recall and traceability of all inspection status identifiers?	YES	NO
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4.5.3	Are appropriate actions included in the control procedure to deal with lost status identifiers, misuse of identifiers, reassigned identifiers and removal of names of previously authorized, but reassigned personnel?	YES	NO
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4.5.4	Is the inspection status identifier traceable to the assigned inspector?	YES	NO
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4.5.5	Are records of personnel identification (e.g., signatures, initials, stamp impression, clock number, etc.) maintained for all personnel required or authorized to sign-off on any NDT inspection sequence, NDT inspection report or NDT procedure?	YES	NO
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4.5.6	Were all stamps/inspection status identifiers properly controlled to prevent misuse?	YES	NO
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Compliance Assessment Guidance: Control is to be considered as the supplier's procedure defines it but at a minimum means that the stamp or identifier is not available to be used by anyone other than the individual to whom it is assigned.

5. NDT QUALIFICATION / CERTIFICATION – NAS410 / EN 4179

NOTE: REFERENCE NAS410 / EN 4179 FOR DETAILED REQUIREMENTS.

5.1 Written Practice

The written practice shall address the following as a minimum:

Compliance Assessment Guidance: The expectation is that each item required by section 5.1 be addressed in detail in the employer's written practice. It is not adequate to merely reference NAS 410/EN4179 for these items.

5.1.1	Is the training, qualification and certification of NDT personnel written practice approved by the Responsible Level 3?	YES	NO
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Compliance Assessment Guidance: Written Practice must be approved by Responsible Level 3. If there is a change in Responsible Level 3 personnel, the new Responsible Level 3 does not need to reapprove (unless a revision is made) but is accountable for the content.

5.1.2	Does the written practice identify the standard(s) to which it is compliant?	YES	NO
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Compliance Assessment Guidance: This is to include unique customer requirements, i.e. NDTQ, RRP58005, SPOC 165.7, ASI6-10, A1083.

5.1.3	Does the written practice identify each method and each specific technique within the method(s) used by the employer?	YES	NO
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5.1.4	Does the written practice address the following levels of qualification and certification as used by the employer?
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Compliance Assessment Guidance: NA only applies if that particular Level is not used at the employer. For example: Level 1 Limited.

5.1.4.1	Level 1 Limited?	YES	NO	NA
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5.1.4.2	Level 1?	YES	NO	NA
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5.1.4.3	Level 2?	YES	NO	NA
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5.1.4.4	Level 3?	YES	NO
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5.1.5	Does the written practice address the following personnel duties and responsibilities in the applicable levels / methods used by the employer:
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Compliance Assessment Guidance: NA only applies if that particular Level is not used at the employer. For example: Level 1 Limited.

5.1.5.1	Trainee? <i>Compliance Assessment Guidance: An individual who is documented as participating in a training program for an NDT method and is in the process of becoming qualified for certification to Level 1, Level 1-limited or directly to Level 2 shall be considered a trainee. In the technique/method in which they are preparing for certification, trainees shall:</i> • <i>Be documented as a trainee and be actively participating in a training program for a stated NDT method for a limited and specified period of time.</i> • <i>Obtain experience under the direct observation of a Level 2 or Level 3 in the same method.</i> • <i>Obtain experience under the direct observation of a Level 1 or instructor only when approved by the Responsible Level 3.</i> • <i>Not make accept or reject decisions.</i> • <i>Not independently conduct tests.</i> • <i>Not independently perform any other NDT function.</i>	YES	NO	
5.1.5.2	Level 1 Limited? <i>Compliance Assessment Guidance: Level 1-Limited is a limited certification allowing only the performance of a specific NDT test on a specified part, part feature, or assembly. In the test technique and method in which certified, Level 1-Limited personnel shall:</i> • <i>Be able to follow work instructions.</i> • <i>Receive guidance or supervision from a certified Level 2 or Level 3 in the method when necessary.</i> • <i>Have the skills and knowledge to process parts, document results and perform equipment standardization in accordance with approved work instructions.</i> • <i>Have the skills and knowledge to carry out any necessary preparation of parts before or after inspection in accordance with approved work instructions.</i> • <i>When specified in the written practice and when the cognizant engineering organization allows, have the skills and knowledge to evaluate test results and perform acceptance or rejection of a specific part, part feature, or assembly in accordance with approved work instructions, and within the limitations documented by the Responsible Level 3.</i>	YES	NO	NA

5.1.5.3	Level 1? <i>Compliance Assessment Guidance: Level 1 individuals, in the method certified, shall:</i> • Be able to follow work instructions • Have the skills and knowledge to process parts, document results and perform equipment standardization in accordance with approved work instructions. • Have the skills and knowledge to carry out any necessary preparation of parts before or after inspection in accordance with approved work instructions. • Have the skills and knowledge to conduct system performance checks in accordance with the applicable process standard. • Receive guidance or supervision from a certified Level 2 or Level 3 in that method when necessary. • When specified in the written practice and approved by the Responsible Level 3, may perform interpretations and evaluations of specific product(s) or product form(s) for acceptance or rejection in accordance with approved work instructions.	YES	NO	NA
5.1.5.4	Level 2? <i>Compliance Assessment Guidance: Level 2 individuals, in the method certified, shall:</i> • Have the skills and knowledge to set up and standardize equipment, process parts, interpret and evaluate for acceptance or rejection, and document results. • Be thoroughly familiar with the scope and limitations of the technique/method. • Have the skills and knowledge to conduct system performance checks in accordance with the applicable process standard. • Be capable of providing the necessary guidance and/or supervision to trainees and Level 1 personnel. • Be familiar with the codes, standards, and other contractual documents that control the method as used by the employer. • When specified in the written practice, be capable of developing work instructions from approved general procedures. Such work instructions shall require final approval by a Level 3 certified in the method. • Have a basic knowledge of relevant product manufacturing and inspection technology. • When specified in the written practice, have a basic knowledge of aircraft or vehicle maintenance.	YES	NO	NA

5.1.5.5	Level 3? <i>Compliance Assessment Guidance: Level 3 individuals, in the method certified, shall:</i> • <i>Have the skills and knowledge to interpret codes, standards, and other contractual documents that control the NDT method(s).</i> • <i>Be capable of assuming technical responsibility for the NDT facility and staff.</i> • <i>Be capable of selecting the method and technique for a specific inspection.</i> • <i>Be capable of preparing and verifying the adequacy of procedures and work instructions.</i> • <i>Approve NDT procedures and work instructions for technical adequacy.</i> • <i>Have a general knowledge of other NDT methods and product manufacturing and inspection technologies used by the employer.</i> • <i>When specified in the written practice, have a basic knowledge of aircraft or vehicle maintenance.</i> • <i>Be capable of providing or directing training, examination, and certification of personnel.</i> • <i>Conduct NDT for the acceptance of parts and document the results if a demonstration of proficiency in this ability was included in the practical examination.</i> • <i>When required by the written practice, be capable of auditing outside agencies to ensure the requirements of the written practice are met.</i>	YES	NO	
5.1.5.6	Examiner? <i>Compliance Assessment Guidance:</i> •<i>An examiner shall be a Level 3 certified to EN4179/NAS410 and designated by the Responsible Level 3 to administer all or part of the qualification and certification process in the NDT method(s) in which the Examiner is certified.</i> •<i>When the RL3 does not cover all the exams for the methods used by the employer, additional Examiners as defined in EN4179/NAS410 may be identified and delegated in writing as necessary to provide coverage for all methods used by the employer.</i>	YES	NO	NA
5.1.5.7	Responsible Level 3 ? <i>Compliance Assessment Guidance: The employer shall identify in writing a "Responsible Level 3" to act on its behalf in matters regarding the NDT qualification and certification process. The Responsible Level 3 shall be certified in accordance with NAS410/EN4179 as a Level 3 in one or more NDT methods and shall have a thorough knowledge of the written instructions, codes, specifications and standards used by the employer. He/she shall also have a thorough knowledge of the materials, components, product technologies, NDT methods and NDT techniques used by the employer. The Responsible Level 3 may be an outside agency but in this case he/she can only qualify personnel, as only the employer can certify personnel. The Responsible Level 3 shall</i>	YES	NO	

be responsible for implementation of this standard and the overall administration of the qualification and certification program.

5.1.6	Does the written practice address the required training requirements?	YES	NO
5.1.7	Does the employer have a formal plan showing objectives for obtaining certification for trainees?	YES	NO NA
	<i>Compliance Assessment Guidance: NA only applies if the employer does not currently have any trainees.</i>		
5.1.8	Does the written practice address the experience requirements?	YES	NO
	<i>Compliance Assessment Guidance: Reduction of experience hours is no longer allowed. For trainees gaining experience, documentation shall be available for review to indicate individual, date, task, hours, and certified personnel providing direction observation.</i>		
5.1.9	Does the written practice address the examination requirements?	YES	NO
	<i>Compliance Assessment Guidance: The written practice shall include designation of the individual(s) or organization(s) responsible for administering examinations, the number of examination questions to be administered, and the specific visual acuity examination method(s) to be used. If required, the use of a general examination for recertification shall be documented in the written practice.</i>		
5.1.10	Does the written practice address the required records to be maintained?	YES	NO
5.1.11	Does the written practice include the designation of the individual(s) or organization(s) responsible for maintaining the qualification and certification records and where such records are kept?	YES	NO
5.1.12	Does the written practice address the following:		

5.1.12.1	Expiration?	YES	NO
	<i>Compliance Assessment Guidance: Certifications shall expire when the certification interval has lapsed with no recertification issued. Certification, annual maintenance, and vision examinations are considered to expire at the end of the corresponding month in which the event began.</i>		
5.1.12.2	Suspension?	YES	NO
	<i>Compliance Assessment Guidance: Certification shall be suspended when:</i>		
	• Vision examination has expired. • Individual does not perform in the method certified for at least 12 consecutive months. • Individual fails recertification examination. • Individual's performance is found to be deficient in any manner. • Annual maintenance is expired.		
5.1.12.3	Revocation?	YES	NO
	<i>Compliance Assessment Guidance: Certification shall be revoked when the individual does not perform in the certified method for the employer for at least 24 consecutive months, when employment has been terminated, or when the individual's conduct is found to be unethical or incompetent. When an individual is re-hired by the same employer within 24 months, certification may be considered as suspended.</i>		
5.1.12.4	Reinstatement of certification?	YES	NO
	<i>Compliance Assessment Guidance: Certifications that have been suspended may be reinstated up to the original certification date when the cause for the suspension has been corrected and the correction verified by the employer or the individual's proficiency is verified by the Responsible Level 3 or Examiner. Certifications that have expired or been revoked may only be reinstated by specific and practical examination equivalent to initial certification. Current NANDTB certificates may be utilized for new employment provided that the new employer administers specific and practical examinations that are representative of their processes and products.</i>		
5.1.13	Does the written practice address the requirements for additional training of personnel that fail the certification/re-certification examinations?	YES	NO
	<i>Compliance Assessment Guidance: Candidates failing any general, specific or practical examination shall receive additional training as determined and documented by the Responsible Level 3 or Examiner before attempting re-examination of the failed exam. The additional training shall be documented and shall address those areas found deficient in the candidate's skills or knowledge.</i>		

5.1.14	Does the written practice address the requirements for re-examination of those personnel who have failed their certification/re-certification examinations?	YES	NO
	<i>Compliance Assessment Guidance: The re-examination shall not use the same written tests or test samples that were used in the failed examination. The re-examination test must contain a minimum of 25% new questions. A current certification shall be suspended if an individual fails an examination for recertification.</i>		
5.1.15	Does the written practice address the certification and recertification requirements?	YES	NO
5.1.16	Does the written practice reference or include the NDT training outlines used by the employer?	YES	NO
5.1.17	Does the written practice identify the individual(s) or organization(s) responsible for administering and maintaining all or part of the employer's certification program?	YES	NO
5.1.18	Does the written practice define the re-certification option to be used for the Level 3, whether it is by examination and/or by a credit system?	YES	NO
5.2	Personnel Records		NA
	<i>Compliance Assessment Guidance: Only one (1) certification package for each method at each level administered since the last audit need be reviewed; this is not applicable to examinations when administered through the NANDTB. Exceptions may apply if it is necessary to investigate an issue or the issuance of a non-conformance warrants the need to determine if the issue is systemic or not, by reviewing other certification packages. The question may be answered NA if no certification packages were reviewed as a result of the above.</i>		
5.2.1	Are all required records of training, qualification and certification of NDT personnel maintained and made available for review?	YES	NO
	<i>Compliance Assessment Guidance: Only 1 certification package for each method at each level administered since the last audit need be reviewed; this is not applicable to examinations when administered through the NANDTB. Exceptions may apply if it is necessary to investigate an issue or the issuance of a non-conformance warrants the need to determine if the issue is systemic or not, by reviewing other certification packages. If no certification packages were reviewed as a result of the above, the questions may be answered as NA. Include names, certification dates, and level for individuals reviewed. Enter data in table below for all personnel reviewed.</i>		

METHOD	NAME(s)	CERT DATE	LEVEL
AC7114/1			
AC7114/2			
AC7114/3 and AC7114/7			
AC7114/4			
AC7114/5			
AC7114/6			
AC7114/8			
AC7114/9			

- 5.2.2 Do the records indicate the name of the certified individual? YES NO NA
- 5.2.3 Do the records indicate the level, method and technique(s) for which the individual is certified? YES NO NA
- Compliance Assessment Guidance: The techniques on the certificate must be listed as techniques in the written practice.*
- 5.2.4 Do records include the name and signature of the employer's representative authorizing the certification? YES NO NA
- 5.2.5 Are the latest written and practical examinations on file? YES NO NA
- Compliance Assessment Guidance: The facility shall maintain the results of all qualification examinations. A copy of the latest examinations shall be made available for review during the audit. Documentation shall be adequate to ascertain all pertinent facts surrounding the exams. In the case of the practical exam, evidence shall exist that the candidate has documented their results. In the case where a recognized Independent National Aerospace NDT board (NANDTB) provides the qualification examinations, these do not need to be maintained at the employer's facility.*
- 5.2.6 Are the scores for immediately previous examinations on file? YES NO NA
- Compliance Assessment Guidance: The answer would be NA only if the individual in question has only taken one set of examinations for a particular NDT method at the employer being audited, i.e., no previous examinations.*
- 5.2.7 Are the certification and expiration dates of current certification(s) included in the records? YES NO NA
- Compliance Assessment Guidance: Certification for all levels is considered to expire at the end of the corresponding month in which the certification began.*
- 5.2.8 Do records include NDT experience history including any previous certifications, both with current and previous employers sufficient to justify satisfaction of experience requirements for qualification? YES NO NA

Compliance Assessment Guidance:

- A candidate's experience with a previous employer may be accepted by the current employer only if such experience is documented and approved by the Responsible Level 3 or examiner.

5.2.9	Do the records include the NDT training history that identifies the source, type of training, dates of training and course hours?	YES	NO	NA
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Compliance Assessment Guidance:

- For personnel credited with previous training, or personnel not certified within 12 months of their training, refresher training must be provided. Previous training must be documented to be accepted by the employer. As a minimum, refresher training shall cover products, equipment set-up, operation and standardization, specific operating procedures, applicable techniques,
- General, specific and practical training may be obtained with the employer or an outside agency, but shall always be supplemented by practical on-the-job training with the employer.

5.2.10	Is documentation on file regarding equivalent experience accepted by the responsible Level 3 to meet qualification requirements?	YES	NO	NA
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Compliance Assessment Guidance: For personnel previously certified under NAS 410, EN 4179 or other recognized NDT qualification program, the adequacy and equivalency of their previous experience shall be determined and documented by the Responsible Level 3 or examiner.

5.2.11	When used to meet Level 3 qualification requirements, do records indicate the extent of and provide documentation of formal education?	YES	NO	NA
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5.2.12	Is documentation on file regarding equivalent training accepted by the Responsible Level 3 to meet qualification requirements?	YES	NO	NA
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Compliance Assessment Guidance: For personnel previously certified under NAS 410, EN 4179 or other recognized NDT qualification program, the adequacy and equivalency of their previous training shall be determined and documented by the Responsible Level 3 or examiner. All or a portion of previous hours may be accepted as applicable.

5.2.13	Is documentation appropriate to justify Level 1 'Limited' certifications and is it maintained with the Responsible Level 3?	YES	NO	NA
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Compliance Assessment Guidance:

- For Level 1-Limited certifications, the case-by-case justification, the cognizant engineering organization's approval, the training and experience hours, the length of the certification (up to 1 year), the

specific NDT test to be performed, the specific hardware to be tested, and, if applicable, the approval to accept reject hardware.

- *An individual shall not possess more than three (3) Level 1 Limited certifications at any given time.*

5.3

Examinations

SECTION NA

Compliance Assessment Guidance: Only 1 certification package for each method at each level administered since the last audit need be reviewed; this is not applicable to examinations when administered through the NANDTB. For Initial audits a representative sample shall be reviewed for each level and method. Exceptions may apply if it is necessary to investigate an issue or the issuance of a non-conformance warrants the need to determine if the issue is systemic or not, by reviewing other certification packages. If no certification packages were reviewed as a result of the above, the questions may be answered as NA.

5.3.1	Is there evidence that the qualification examinations have been administered and graded by the Responsible Level 3 or Examiner?	YES	NO	NA
<i>Compliance Assessment Guidance:</i> ▪ <i>In the case where an NANDTB provides the qualification examinations, the exams do not need to be maintained at the employer's facility, however the examination scores shall be on file.</i> ▪ <i>The administration and grading of all examinations shall be the responsibility of the Responsible Level 3 or Examiner. All practical examinations shall be administered by the Responsible Level 3 or Examiner. Responses to essay and fill-in questions must be evaluated by the Responsible Level 3 or Examiner, certified in the applicable test method, to verify the candidate's adequate understanding of the subject matter.</i>				
5.3.2	If the Responsible Level 3 or Examiner delegates the administration of examinations, was the delegation documented?	YES	NO	NA
<i>Compliance Assessment Guidance: The Responsible Level 3 or Examiner may delegate in writing the administration and grading of examinations using multiple choice or true/false questions to non-Examiner personnel. All practical examinations shall be administered by the Responsible Level 3 or Examiner certified in the applicable test method.</i>				
5.3.3	Does evidence exist that qualification exams have not been administered by a subordinate or to one's self?	YES	NO	NA
<i>Compliance Assessment Guidance: In no case can an examination be administered by one's self or by a subordinate.</i>				
5.3.4	Are Level 1 'Limited' personnel examinations administered yearly?	YES	NO	NA
5.3.5	Are the Level 1 and Level 2 personnel re-certified at a frequency not to exceed five years?	YES	NO	NA

5.3.6	Are Level 3 personnel re-certified at a frequency not to exceed five years?	YES	NO	NA
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5.3.7	When points are utilized for Level 3 re-certification, is the required documentation on file?	YES	NO	NA
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Compliance Assessment Guidance:

- *Documentation for recertification shall be submitted to the Responsible Level 3 or NANDTB at least 14 days prior to the expiration date of the certification.*
- *Application for Level 3 recertification of the Responsible Level 3 shall be made directly to the applicable regulatory agency, NANDTB, or employer for review by a designated Level 3. This application shall provide documented evidence that the requirements outlined in NAS410/EN-4179, Annex A have been met. A copy of this application shall be maintained in the Level 3 candidate's NDT personnel records.*
- *Continuity in the method shall be demonstrated prior to NAS 410/EN4179 Annex A Recertification. A candidate shall provide a list of 8 verifiable Level 3 tasks in each NDT method for which recertification is sought covering the 5 year period.*
- *Documentation of credit points used for Level 3 recertification shall be kept on file. However, the last written and practical examinations need not be maintained.*
- *Regarding NAS 410/EN4179 Table A.1 Activity Credit - A single event shall only be used for one award credit activity during a five year period.*

5.3.8	When examinations are utilized for Level 3 re-certification, is the required documentation on file?	YES	NO	NA
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Compliance Assessment Guidance: Specific and practical examinations (at a minimum) equivalent to initial certification are required for re-certification.

5.3.9	Are Level 1, Level 2 and Level 1 'Limited' re-certification examinations equivalent to those given for initial certification?	YES	NO	NA
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Compliance Assessment Guidance: Only specific and practical examinations equivalent to initial certification are required for re-certification.

5.3.10	Does the examination scoring system for qualification examinations conform to the requirements of the governing standard?	YES	NO	NA
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Compliance Assessment Guidance: All examination scores shall be of equal weight in determining the average score. For example, if only a specific and practical examination is administered for recertification, only those scores shall be factored into the average score. If a general examination is also given for recertification, the general score shall also

be factored into the average score. For a Level 3 recertified using points, the score for the hands-on practical, if administered, will be used as the average score. Scores for ASNT, or ISO 9712 NDT certificates scored as "pass/fail" and used in lieu of the general examination shall be assigned a value of 80%.

5.3.11	Do the general examinations have the minimum number of questions and does the question content cover the subject material for the level and method for which certification is sought?	YES	NO	NA
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Compliance Assessment Guidance:

- *The general examination for all levels shall be a closed book examination (An examination administered without access to any reference materials) covering the cross-section of the applicable method at the appropriate level. A minimum of 10 questions shall be administered for the general examination for Level 1-Limited. A minimum of 40 questions shall be administered for the general examination at Levels 1, 2 or 3. Passing a "basic" examination covering the other NDT methods used before passing any NDT method examination shall be considered satisfactory evidence the other NDT methods have been satisfactorily covered. Possession of a current ASNT or ISO 9712 NDT certificate at the appropriate level by the candidate may be satisfactory evidence that the general examination requirement is satisfied as defined in the employer's written practice.*
- *In the case where an NANDTB provides the qualification examinations, these do not need to be maintained at the employer's facility and question is NA.*
- *For Level 3, the general examination questions shall address the general knowledge of all other methods as well as the method for which certification is sought.*

5.3.12	Do the specific examinations have, at least, the minimum number of questions and do the specific examination questions reflect the specifications, codes, equipment, operating procedures and test techniques that the candidate may use in the performance of his/her duties with the employer?	YES	NO	NA
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Compliance Assessment Guidance:

- a) *The specific examination for all levels shall be an open book examination (Reference material such as specifications, tables, formulas, etc. shall be provided as determined by the Responsible Level 3 or Examiner. Questions utilizing such material shall require understanding of the information contained therein rather than merely finding its location.) covering the requirements and use of the specifications, codes, equipment, operating procedures and test techniques the candidate may use in the performance of his/her duties with the employer. A minimum of 8 questions shall be administered for the specific examination for Level 1-Limited. A minimum of 30*

questions shall be administered for the specific examination at Levels 1, 2, and 3.

b) In the case where an NANDTB provides the qualification examinations, these do not need to be maintained at the employer's facility and question is NA.

c) Where the NDT personnel qualification examinations are under the general control of an NANDTB, the employer is responsible for administering supplemental examinations representative of the employers processes and such evidence shall be available for review during the audit. Where the NANDTB has formally declared in writing that the qualification examinations under its general control are representative of the employers processes, supplemental examinations are not required.

5.3.13	Is there evidence that test samples used for the practical examination contain known discontinuities or conditions?	YES	NO	NA
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Compliance Assessment Guidance:

- *The test samples shall be representative of the products to be encountered by the candidate in the performance of his/her duties with the employer. When only one configuration of hardware is to be inspected upon certification, both test samples may be of the same configuration.*
- *Test samples can refer to actual hardware, fabricated test parts, or, when applicable, images of actual hardware such as radiographs. Process control tools or reference standards used for equipment set-up and production inspection shall not be used for examination test pieces.*
- *The same qualification examination test samples may be used when location and severity of flaws in the test samples are not apparent or familiar to the candidate and differing configuration must be used for each technique within a method.*
- *In the case where an NANDTB provides the qualification examinations, these do not need to be maintained at the employer's facility and question is NA.*
- *Where the NDT personnel qualification examinations are under the general control of an NANDTB, the employer is responsible for administering supplemental examinations representative of the employers products and such evidence shall be available for review during the audit. Where the NANDTB has formally declared in writing that the qualification examinations under its general control are representative of the employers products, supplemental examinations are not required.*

5.3.14	Do the Level 1 practical examinations provide evidence that at least one test sample per technique, with a minimum of two test configurations for each method, were processed?	YES	NO	NA
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Compliance Assessment Guidance:

- *Technique is defined by the Level 3 in the employer's written practice.*
- *When only one configuration of hardware is to be inspected upon certification, both test samples may be of the same configuration.*
- *The checklist shall include proficiency in the use and standardization of equipment, materials, and adherence to procedural details.*
- *If the Level 1 candidate is to accept products, the candidate shall document the NDT results. The checklist shall also include proficiency in the interpretation and evaluation of indications. All practical examinations shall be administered by the Responsible Level 3 or Examiner.*
- *In the case where an NANDTB provides the qualification examinations, these do not need to be maintained at the employer's facility and question is NA.*
- *Where the NDT personnel qualification examinations are under the general control of an NANDTB, the employer is responsible for administering supplemental examinations representative of the employers products and such evidence shall be available for review during the audit. Where the NANDTB has formally declared in writing that the qualification examinations under its general control are representative of the employers products, supplemental examinations are not required.*

5.3.15

Do the Level 2 practical examinations provide evidence that at least one test sample per technique, with a minimum of two test configurations for each method, were processed?

YES NO NA

Compliance Assessment Guidance:

- *Technique is defined by the Level 3 in the employer's written practice.*
- *When only one configuration of hardware is to be inspected upon certification, both test samples may be of the same configuration.*
- *The candidate shall document the NDT results in accordance with the applicable acceptance criteria. The checklist shall address proficiency in the use and standardization of the equipment and materials, adherence to procedural details and the accuracy and completeness of interpretation and evaluation of indications. All practical examinations shall be administered by the Responsible Level 3 or Examiner.*
- *In addition to the two minimum known and documented test samples with discontinuities, specimens without discontinuities may be included.*
- *In the case where an NANDTB provides the qualification examinations, these do not need to be maintained at the employer's facility and question is NA.*
- *Where the NDT personnel qualification examinations are under the general control of an NANDTB, the employer is responsible for administering supplemental examinations representative of the employers products and such evidence shall be available for review during the audit. Where the NANDTB has formally declared in writing that the qualification examinations under its general control are representative of the employers products, supplemental examinations are not required.*

5.3.16

Does the Level 3 practical examination provide evidence that an NDT procedure or work instruction appropriate to the employer's current requirements for the method was written in conjunction with the general and/or specific examinations?

YES NO NA

Compliance Assessment Guidance:

- *The Level 3 practical shall require the candidate to develop an NDT procedure or work instruction. This is a document detailing the NDT technique and testing parameters to be used for the inspection of a specific component, group of parts, e.g. aluminum extrusions or steel brackets, or assembly. These are sometimes referred to in the industry as technique sheets or data cards. Such work instructions are based on procedures defined in NAS410/EN4179 appropriate to the employer's requirements. A part specific data card (technique) may be adequate for the procedure requirement provided it contains sufficiently detailed information for processing and inspecting a part and demonstrating a Level 3 candidate's practical knowledge of the*

method and customer requirements. A written checklist shall be used to address the technical and practical adequacy of the procedure.

- *Results of all practical examinations shall be documented with evidence as to date reviewed, signature of reviewer and title.*
- *In the case where an NANDTB provides the qualification examinations, these do not need to be maintained at the employer's facility and question is NA.*
- *Where the NDT personnel qualification examinations are under the general control of an NANDTB, the employer is responsible for administering supplemental examinations representative of the employer's products and such evidence shall be available for review during the audit. Where the NANDTB has formally declared in writing that the qualification examinations under its general control are representative of the employer's products, supplemental examinations are not required.*

5.3.17

If the Level 3's duties include processing and/or accepting hardware, does the practical examination provide evidence that at least one test sample per technique (as defined by the written practice) with a minimum of two test samples of differing configurations for each method were evaluated?

YES NO NA

Compliance Assessment Guidance:

- *The practical examination shall encompass proficiency in performance of such tasks and be demonstrated to the requirements of Level 2.*
- *The additional practical examination to accept/reject hardware is not required for Level 3s who write or approve procedures or work instructions even if those instructions are used by personnel to accept/reject hardware. All practical examinations shall be administered by the Responsible Level 3 or Examiner.*
- *In the case where an NANDTB provides the qualification examinations, these do not need to be maintained at the employer's facility and question is NA.*
- *Where the NDT personnel qualification examinations are under the general control of an NANDTB, the employer is responsible for administering supplemental examinations representative of the employers products and such evidence shall be available for review during the audit. Where the NANDTB has formally declared in writing that the qualification examinations under its general control are representative of the employers products, supplemental examinations are not required.*

5.3.18

Is there evidence that a written checklist was used to document all practical examinations, including those administered by an outside agency or NANDTB?

YES NO NA

Compliance Assessment Guidance:

- For all practical exams, a written checklist covering the topics detailed by the appropriate standard shall be developed and completed by the Responsible Level 3 or Examiner
- In the case where an NANDTB provides the qualification examinations, these do not need to be maintained at the employer's facility and question is NA.
- Where the NDT personnel qualification examinations are under the general control of an NANDTB, the employer is responsible for administering supplemental examinations representative of the employers products and such evidence shall be available for review during the audit. Where the NANDTB has formally declared in writing that the qualification examinations under its general control are representative of the employers products, supplemental examinations are not required.

5.3.19	Does the practical examination documentation indicate the acceptance criteria and acceptance status of all indications and/or conditions established by the Level 3 Examiner?	YES	NO	NA
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Compliance Assessment Guidance: In the case where an NANDTB provides the qualification examinations, these do not need to be maintained at the employer's facility and question is NA. NA also applies for Level 1 personnel who do not accept products

5.3.20	Are controls in place that assure examinations and test samples are only made available to candidates during administration of the examinations?	YES	NO	NA
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Compliance Assessment Guidance: N/A applies where administration of all examinations is devolved to an off-site facility which is controlled by an NANDTB or outside facility.

5.3.21	Are examinations and test samples stored in a secure manner to prevent access by candidates and other unauthorised persons?	YES	NO	NA
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Compliance Assessment Guidance: Examinations shall be maintained in a secure environment. N/A applies where administration of all examinations is devolved to an off-site facility which is controlled by an NANDTB or outside facility.

5.3.22	Does the written procedure address actions to be taken to assure all qualification examinations, including those provided by an outside agency, are available for review during the audit?	YES	NO	NA
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Compliance Assessment Guidance: When an outside agency provides the qualification exams and maintains them, the procedure must address actions to be taken to allow review by the customer, or Nadcap representative, in a timely manner. Responsibility for making examinations available for review is solely that of the employer. The only time NA can be used is when a NANDTB is utilized and provides

all qualification examinations, therefore procedural coverage is not required.

5.4 Vision Examinations

Compliance Assessment Guidance: For initial audits a representative sample shall be reviewed. For re-accreditation audits a minimum of one vision examination, for each method at each level, administered since the last audit shall be reviewed.

5.4.1	Is there evidence of flow down of the NAS 410/EN4179 Table V vision requirements to the person performing the examination?	YES	NO
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Compliance Assessment Guidance: Examples of flow down could include use of the procedure, applicable form or other methods of flow down documents.

5.4.2	Are visual and color perception examination results current for all certified inspection personnel?	YES	NO
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5.4.3	Are records of vision exams maintained and available for review?	YES	NO
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5.4.4	Do the records provide evidence that the near vision examinations meet one of the following?	YES	NO
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- Tumbling E in accordance with ISO 18490
- 20/25 (Snellen) at 16 inches (40.64cm), +/- 1 inch (2.54cm)*
- Jaeger No 1 at not less than 12 inches (30.48 cm)*

*With at least one eye, either natural or corrected?

5.4.5	Do the vision examination records indicate that the technicians can distinguish and differentiate between the colors used in the method for which certification is sought?	YES	NO
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Compliance Assessment Guidance: Any limitations in color perception shall be evaluated by the Responsible Level 3 prior to certification and must be approved in writing.

5.4.6	Are near vision examinations administered prior to certification and annually thereafter and color perception examinations administered prior to certification and at least every five years thereafter?	YES	NO
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Compliance Assessment Guidance: Certification expires at end of the anniversary month in which it was conducted. Vision exams are required for certification in accordance with NAS 410/EN4179, at some point prior to certification, every trainee shall be given a vision exam. However, trainees do not require a vision exam to function as trainees.

5.4.7 Is there evidence that trained personnel designated by the Responsible Level 3, or qualified medical personnel administered the vision exams? YES NO

Compliance Assessment Guidance:

- Snellen and Jaeger tests shall be administered by trained personnel designated by the Responsible Level 3 or by qualified medical personnel.
- ISO 18490 tests (Tumbling E) shall be administered in accordance with the requirements therein.

5.5 Review of *Employer's* Level 3 Personnel

5.5.1 Do records indicate that the employer has designated a Responsible Level 3? YES NO

Name of Responsible Level 3:

☐ Internal Responsible Level 3

☐ External Responsible Level 3

Compliance Assessment Guidance: Corporate Level 3's not stationed at this facility are considered as External Responsible Level 3's.

5.5.2 Does the employer utilize an internal Level 3 in all methods being audited? YES NO NA

Compliance Assessment Guidance: The employer may choose to utilize an on site Level 3 for any or all NDT methods performed. All methods performed at the facility shall be covered by a Level 3, either internal or external. This question shall be answered as "yes" if a combination is used but with an explanation. NA applies only if an external Level 3 is utilized.

METHOD	NAME(s)	CERT DATE
AC7114/1		
AC7114/2		
AC7114/3 and AC7114/7		
AC7114/4		
AC7114/5		
AC7114/6		
AC7114/8		
AC7114/9		

5.5.3 Are outside agencies, including Corporate Level 3's not stationed at this facility, used to provide Level 3 services? Note: An "NA" response must be explained in detail. YES NO NA

NAME	COMPANY	LOCATION	SERVICES PROVIDED

- 5.5.4 Does the facility have documentation on file to verify the adequacy of the qualification / certification for the outside Level 3? YES NO NA

Compliance Assessment Guidance: If a employer uses external Level 3 services (including Corporate Level 3's not stationed at this facility) for qualification examinations; to approve techniques and/or procedures; to inspect hardware; or as the Responsible Level 3 then that Level 3 shall be qualified and certified to NAS410 /EN4179. The NDT Task Group requires that the employer who utilizes the Level 3's services shall have proof, on file, of this certification. "Proof of certification" in this sense is evidence of certification in accordance with NAS 410 / EN4179, the employer is not required to maintain copies of the Level 3's examinations. External sources who provide only training services are not required to prove certification only proof of adequate background experience. "Proof of Background Experience" in this sense is documentation that justifies the suitability of the outside source. Documentation may be in the form of a resume citing qualifications, evidence of certifications held or previous industry-related work experience that proves the candidate's suitability as a trainer.

NAME	METHOD	CERT DATE

- 5.6 Training Course Outline

- 5.6.1 Are training course outlines for NDT personnel in place, including those used by an outside agency? YES NO

- 5.6.2 Is the training subject matter sufficient enough to ensure that NDT personnel at all levels (excluding Level 3) become proficient with the principles and practices of the applicable test method and technique(s)? YES NO

- 5.6.3 Are the training course outlines approved by the Responsible Level 3, as applicable? YES NO

Compliance Assessment Guidance: This includes those training course outlines used by an outside agency. If an outside agency or NANDTB is used to provide the training, the Responsible Level 3 shall verify that the training meets the employer's requirements.

- 5.6.4 Do the training course outlines address the basic theory for each method? YES NO

- 5.6.5 Do the training course outlines address the test principles, including choice of NDT methods, relevance to different materials, and part and test variables? YES NO

5.6.6	Do the training course outlines address product forms and materials; defect formation and characterization?	YES	NO
5.6.7	Do the training courses outline address, for each method, equipment operation and standardization?	YES	NO
5.6.8	Do the training courses outline address, for each method, the applicable process controls?	YES	NO
5.6.9	Do the training courses outline address, for each method, the applicable NDT processing steps and parameters?	YES	NO
5.6.10	Does the training course outline address, for each method, safety related training requirements as determined by the <i>employer</i> ?	YES	NO
5.6.11	Do the training course outlines address the advantages and disadvantages of each NDT technique used?	YES	NO
5.6.12	Do the training course outlines address the limitations and capabilities of each NDT method and technique used?	YES	NO
5.6.13	Do the training course outlines address the applicable specifications, codes, operating procedures and work instructions used?	YES	NO
5.6.14	Do the training course outlines address the evaluation and interpretation processes and documentation of the inspection results?	YES	NO
5.6.15	Have instructors been designated or approved by the Responsible Level 3, Examiner or NANDTB?	YES	NO
	<i>Compliance Assessment Guidance: Instructors shall have the skills and knowledge to plan, organize, and present classroom training and practical exercises in accordance with approved course outlines.</i>		
5.6.16	Do the training course outlines include a list of references from which the training material is derived?	YES	NO

6. PERSONNEL

The supplier shall complete and the auditor shall review, the employer's provided list of NDT personnel for adequacy, content and correctness. This list shall include trainees and suspended personnel. Attachments are for information only but shall be completed fully. NCR's shall not be written against attachments. Supplier may use Attachment AC7114-A or similar format which contains the same information.

ATTACHMENT

7. INSPECTION / RECORDS / PROCEDURES

7.1	Evidence of Unauthorized Changes		
7.1.1	Is there a procedure that addresses how changes are to be made and who is authorized to make changes?	YES	NO

7.1.2	Were all record and/or procedure changes properly authorized?	YES	NO	NA
	<i>Compliance Assessment Guidance: The auditor is expected to review substantial documentation to make this determination.</i>			
7.1.3	Does the supplier maintain a list of authorized personnel?	YES	NO	
	<i>Compliance Assessment Guidance: Authorized personnel may be expressed generically in the terms of job title, e.g., Quality Engineer.</i>			
7.2	Inspection Records			
7.2.1	Is an inspection record maintained of all parts submitted for NDT inspection and evaluation?	YES	NO	
7.2.2	Do inspection records contain or provide traceability to the date of Inspection?	YES	NO	
7.2.3	Do inspection records contain or provide traceability to the name of the Supplier that carried out the inspection?	YES	NO	
7.2.4	Do inspection records contain or provide traceability to the part number or material?	YES	NO	
7.2.5	Do inspection records contain or provide traceability to the serial number, if applicable?	YES	NO	NA
7.2.6	Do inspection records contain or provide traceability to the number of parts in the lot, the number inspected, and the number accepted or rejected?	YES	NO	
7.2.7	Do inspection records contain or provide traceability to the applicable process specification and acceptance criteria specification and revision?	YES	NO	
7.2.8	Do inspection records contain or provide traceability to the identification of the inspector performing the inspection?	YES	NO	
7.2.9	Do inspection records contain or provide traceability to the nature of the discrepancy and, if applicable, the rejection tag number?	YES	NO	
7.3	Work Orders / Shop Travelers			
7.3.1	Is a work order or shop traveler in use that contains, or provides traceability to, the product identification traceable to the applicable purchase order number, part number, or product specification?	YES	NO	
7.3.2	Is a work order or shop traveler in use that contains or provides traceability to the applicable process specification and/or procedure?	YES	NO	
7.3.3	Is a work order or shop traveler in use that contains or provides traceability to the inspection method?	YES	NO	

7.3.4	Is a work order or shop traveler in use that contains, or provides traceability to the inspector performing the operation?	YES	NO
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7.3.5	Is a work order or shop traveler in use that contains or provides traceability to the quantity inspected, accepted / rejected?	YES	NO
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7.3.6	Is a work order or shop traveler in use that contains or provides traceability to the correct sequence of the inspection operation(s) within the manufacturing process?	YES	NO
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Compliance Assessment Guidance: For independent inspection facilities only the sequence within the inspection process is applicable.

8. CALIBRATION

8.1 Procedure

8.1.1	Is there a procedure that flows down calibration requirements for NDT related equipment?	YES	NO
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Compliance Assessment Guidance: The calibration for any device / gage used for NDT begins on the date the device / gage was calibrated. Deferring calibration dates to commence when a device / gage is removed from bonding stores or similar, is not allowed.

8.1.2	Does the procedure specify the number of points to be checked for each instrument and reference to the accuracy required and the range to be checked?	YES	NO
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8.1.3	Do purchase orders or procedures for calibration services identify or provide traceability to requirements for the standard to be used, accuracy, range of use and number of points to be checked (3 minimum unless otherwise stated in the applicable method standard) encompassing that range?	YES	NO
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8.2 Calibration Certificate

8.2.1	Do calibration certificates contain or provide traceability to the unit under test, identify the accuracy, nomenclature and/or serial number of the unit, the range, the point(s) that were checked and results?	YES	NO
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8.2.2	Is there evidence that calibration records are reviewed to verify whether equipment was within tolerance as received for calibration and that a correct calibration has been performed?	YES	NO
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Compliance Assessment Guidance: Calibration records shall be reviewed to ensure accuracy of data and verify all equipment was within tolerance when checked by the calibration source.

8.3 Calibration Intervals

8.3.1	Does the calibration procedure address criteria to extend the calibration intervals, if allowed by the governing specification?	YES	NO	NA
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Compliance Assessment Guidance: The procedure must define what is considered as acceptable justification, i.e., number of acceptable calibrations required before extension is possible; etc.

8.3.2	Does the calibration procedure address requirements and actions for “out of tolerance” conditions?	YES	NO
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Compliance Assessment Guidance: As a minimum it is expected that a review of the impact on results captured whilst the equipment was “out of tolerance” will be documented, an assessment of suitability for further use shall be made and their impact on the process determined. Any additional requirements imposed eg limitations of use, increased tolerances or changes in intervals would also need to be shown.

8.3.3	If calibration intervals have been extended, is adequate documentation on file to substantiate the extension?	YES	NO	NA
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Compliance Assessment Guidance: Adequate documentation at a minimum would be considered as 4 acceptable calibrations in a row. Acceptable would be considered a calibration or verification where no adjustments or changes were required.

9. PROCESS CONTROL FAILURE

Failure Procedure

9.1.1	Is there a procedure that addresses the actions to be taken if unacceptable results are obtained for process control tests?	YES	NO
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9.1.2	Does the procedure address the requirements for customer notification when product impact is suspected?	YES	NO
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