

NANDTB 12 / AUDIT CRITERIA TO BE USED ON AUDITS OF THE NANDTB-TR

1.0 SCOPE

The purpose of this Audit Criteria is to provide a means to verify and document that systems are in place to ensure that National Aerospace NDT Boards are operated in accordance with EN4179 / NAS410, ANDTBF/08 and procedures that have been established to control the board. If non-compliance is identified the auditor will formally record non-conformances. In order to obtain and maintain approval as a Board all non-conformance must be addressed.

2.0 GENERAL INFORMATION

2.1 References:

Available from www.asd-stan.org

EN4179 Qualification and Approval of Personnel for Non-destructive Testing Personnel.

Available from www.aia-aerospace.org

NAS410 Certification & Qualification of Nondestructive Test Personnel.

Available from www.efndt.org

ANDTBF/08 Organization, Duties and Responsibilities of NANDTB's.

2.2 Instructions to 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 expectation when answering the checklist question as YES or NA. The auditor must verify the list of procedures provided by the Board 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 Non-conformance 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

employed. There are no NA's simply for a lack of a 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 proprietary information. Technical information on parts which have been designated "Export Controlled – License Required" (EC-LR) should not be recorded. If auditors have any questions about this, they should contact the organization managing this audit.

The evidence, e.g. procedure reference, document reference, website address etc. that supports the response shall be captured in the 'Evidenced by' box.

2.3 Instructions to the Board

It is recommended that prior to the audit each Board should complete a self-audit and all internally identified non-conformances should be corrected prior to the actual audit. Non-conformances which could have an impact on existing personnel approval/certification may require a follow up audit to verify that any corrective action has been implemented and is effective.

Following the audit any non-conformance(s) will be agreed by the representative of the board and the auditor. The board has 21 calendar days from the issue of any non-conformance report to submit a closed out non-conformance or provide a corrective action plan (NANDTB 12.A - NANDTB-TR Audit NCRs and Corrective Actions). The close out of the non-conformance shall include but not be limited to:

1. Root cause analysis.
2. Immediate corrective action to resolve the discrepancy.
3. Actions taken to preclude recurrence.
4. Any relevant documentation to support the close out of the non-conformance.

3.0 GENERAL INFORMATION

During the audit, the representative of the Board shall provide verbal or written translations as required to assure the Auditor's understanding and proper assessment for all technical data.

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NANDTB Representative contact	: Mehmet SAYGIOĞLU
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Date of Audit	:
Auditor Name	:

- 3.1 For re-approval audits, were corrective actions from the previous audit implemented? YES NO NA

Compliance Assessment Guidance: Verification of corrective actions taken as a result of non-conformances 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. NA if this is the initial audit or there were no non-conformances identified during the previous audit.

Evidenced by:

3.2 Requirements – Structure of the NANDTB

- 3.2.1 Is there evidence to show that the NANDTB is chartered by the participating prime contractors? YES NO

Compliance Assessment Guidance: Prime contractor is an organization having overall responsibility for design, control and delivery of a system, component or product.

Evidenced by:

3.2.2 Is there evidence to show that the NANDTB is recognized by the nation's regulatory agency? YES NO

Compliance Assessment Guidance: The national Regulatory Agencies are termed the Competent Authority (CA) or National Aviation Authority (NAA).

Evidenced by:

3.2.3 Is there evidence to show that the voting members from participating Primes or type certificate holders are NDT level 3 personnel? YES NO

Compliance Assessment Guidance: There may be co-opted members who are allowed to vote however the deciding entity shall be level 3 personnel from participating prime contractors or type certificate holders.

Evidenced by:

3.2.4 Is there evidence to show that the National Regulatory agencies for civilian and / or defense are included as observer members? YES NO

Evidenced by:

3.2.5 Does the NANDTB have a website (webpage) where it is able to disclose information? YES NO

Compliance Assessment Guidance: Information such as written constitution, terms of reference, recognition by authority, NANDTB members, approved training and examination bodies, published procedures and specifications and requirements for qualification certificates.

Evidenced by:

3.2.6 Is the audit of examination bodies performed by the NANDTB? YES NO NA

Compliance Assessment Guidance: NA is applicable if the audit is performed by a national NDT society.

Evidenced by:

3.2.7 Is the audit of examination bodies performed by a national NDT society? YES NO NA

Compliance Assessment Guidance: NA is applicable if the audit is performed by the NANDTB.

Evidenced by:

3.2.8 Does the NANDTB employ the services of an auditor to audit examination bodies? YES NO NA

Compliance Assessment Guidance: NA is applicable when a national NDT society performs the audit.

Evidenced by:

3.2.9 Does the national NDT society employ the services of an auditor to audit examination bodies? YES NO NA

Compliance Assessment Guidance: NA is applicable when the NANDTB performs the audit.

Evidenced by:

3.2.10 Is there evidence to show that the auditor satisfies the requirements of EN4179 / NAS410? YES NO

Compliance Assessment Guidance: Personnel performing technical NDT audits shall have the training, skills and knowledge to understand the processes and procedures utilised in the application of NDT processes.

Evidenced by:

3.2.11 Does the NANDTB have access to the audits conducted by the national NDT society? YES NO NA

Compliance Assessment Guidance: NA is applicable when audits are performed by the NANDTB.

Evidenced by:

4.0 QUALITY REQUIREMENTS (PROCEDURES)

4.1 Has the NANDTB published a constitution, terms of reference and methods of the working of the Board? YES NO

Evidenced by:

4.2 Has the NANDTB published its aims and objectives? YES NO

Evidenced by:

4.3 Has the NANDTB published its rules of procedure for voting and agreeing resolutions? YES NO

Evidenced by:

4.4 Has the NANDTB published its criteria to be met by member organizations? YES NO

Evidenced by:

4.5 Has the NANDTB published a procedure for applying for membership and election of member organizations? YES NO

Evidenced by:

4.6 Has the NANDTB published a procedure for termination of membership? YES NO

Evidenced by:

4.7 Has the NANDTB published the names and status of organizations presently in membership of the Board? YES NO

Compliance Assessment Guidance: This shall include prime contractors, national NDT society, competent or national aviation authority, operators, maintenance organizations, etc.

Evidenced by:

4.8	Has the NANDTB published the duties, responsibilities and tenure of appointed offices?	YES	NO	
<i>Compliance Assessment Guidance: This should include chairman, secretary, convener of working groups.</i>				
Evidenced by:				
4.9	Has the NANDTB published the method(s) by which it controls qualification examinations administered by internal and external examination bodies?	YES	NO	
Evidenced by:				
4.10	Has the NANDTB published criteria for examination bodies including how these bodies are to be audited and approved?	YES	NO	
Evidenced by:				
4.11	Has the NANDTB published guidance to examination bodies on the content of certificates of qualification (training and examinations)?	YES	NO	
Evidenced by:				
4.12	Has the NANDTB published a policy on the recognition of examination body approvals issued under the control of other National Boards?	YES	NO	
Evidenced by:				
4.13	Does the NANDTB have a process for qualifying a Level 3 in a new or emerging method?	YES	NO	NA
<i>Compliance Assessment Guidance: NA is applicable where the NANDTB has elected to follow the default requirements for emerging NDT methods per EN4179 / NAS410.</i>				
Evidenced by:				

4.14 Where the NANDTB is required to provide services to a Responsible Level 3, is there evidence that the board has developed processes and procedures that ensures full compliance with the requirements of EN4179 / NAS410? YES NO NA

Compliance Assessment Guidance: The Responsible 3 may use an NANDTB to:

- *Develop training course outlines and training material*
- *Create examination questions and administer examinations*
- *Approve outside and/or internal organisations providing training and or examination services*
- *Define requirements for qualification of NDT personnel in emerging NDT methods*
- *Retain written and practical examinations*
- *Designate Examiners and/or instructors at outside or internal organisations providing training and examination services.*

NA is applicable when the NANDTB does not provide any of the above services.

Evidenced by:

4.15 Does the NANDTB have a procedure detailing the actions necessary in the event that a finding had implications for safety or product integrity? YES NO

Compliance Assessment Guidance: The auditor should notify the NANDTB of the finding and the corrective action taken?

Evidenced by:

5.0 COMPLIANCE

The NANDTB and/or the national NDT society shall make available three representative audit reports conducted at approved Outside / Inside Agencies which have been approved by the NANDTB. These audit reports shall be evaluated to determine compliance with EN4179 and ANDTBF/08

These audit reports should be selected to represent a variety of Outside /Inside Agencies and should also represent different methods and levels used by the Outside / Inside Agency.

The NANDTB or national NDT society must provide objective evidence that all non-conformances have been successfully closed.

It is expected that the auditor shall review:

1. Root cause analysis.
2. Immediate corrective action to resolve the discrepancy.
3. Actions taken to preclude recurrence.
4. Any relevant documentation to support the close out of the non-conformance.

5.1 Review of Audit Packages

5.1.A.1 Name of Outside/Inside Agency:

5.1.A.2 Name of Auditor:

5.1.A.3 Date of Audit:

5.1.A.4 Initial or Re-approval:

5.1.A.5 Methods: _____ Levels:

5.1.B.1 Name of Outside/Inside Agency:

5.1.B.2 Name of Auditor:

5.1.B.3 Date of Audit:

5.1.B.4 Initial or Re-approval:

5.1.B.5 Methods: _____ Levels:

5.1.C.1 Name of Outside/Inside Agency:

5.1.C.2 Name of Auditor:

5.1.C.3 Date of Audit:

5.1.C.4 Initial or Re-approval:

5.1.C.5 Methods: _____ Levels:

5.2 If the audit is performed by a national NDT society, is there evidence to show that the audit activity is overseen by the NANDTB? YES NO NA

Compliance Assessment Guidance: NA should be used when the NANDTB performs the audits.

Evidenced by:

5.3 Does the audit criteria include a review of the Outside/Inside Agency's quality system documents and procedures as defined by the NANDTB? YES NO

Evidenced by:

5.4 Does the audit verify that the Outside/Inside Agency had a written practice based upon EN4179 and was approved by the Outside/Inside Agency's Responsible Level 3? YES NO

Evidenced by:

5.4.1 Does the audit verify that the written practice has identified the standard(s) to which it is compliant? YES NO

Evidenced by:

5.4.2 Does the audit verify that the written practice has identified each method and each specific technique within the method(s) used by the Outside/Inside Agency? YES NO

Evidenced by:

5.4.3 Does the audit verify that the written practice has addressed the levels of qualification and certification as used by the Outside/Inside Agency? YES NO

Evidenced by:

5.4.4 Does the audit verify that the written practice has addressed personnel duties and responsibilities in the applicable levels / methods used by the Outside/Inside Agency? YES NO

Evidenced by:

- | | | | |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|
| 5.4.5 | Does the audit verify that the written practice has addressed the required training requirements? | YES | NO |
| | Evidenced by: | | |
| 5.4.6 | Does the audit verify that the written practice addressed the experience requirements? | YES | NO |
| | Evidenced by: | | |
| 5.4.7 | Does the audit verify that the written practice addressed the examination requirements? | YES | NO |
| | Evidenced by: | | |
| 5.4.8 | Does the audit verify that the written practice addressed the required records to be maintained? | YES | NO |
| | Evidenced by: | | |
| 5.4.9 | Does the audit verify that the written practice addressed expiration, suspension and revocation of approvals? | YES | NO |
| | Evidenced by: | | |
| 5.4.10 | Does the audit verify that the written practice addressed certification and recertification requirements? | YES | NO |
| | Evidenced by: | | |
| 5.4.11 | Does the audit verify that written practice addressed the re-certification option to be used for the Level 3, whether it was by examination and/or by a credit system? | YES | NO |
| | Evidenced by: | | |
| 5.5 | Does the audit verify that the Outside/Inside Agency had designated a Responsible Level 3? | YES | NO |
| | Evidenced by: | | |

5.6 Does the audit verify that any instructors and/or examiners employed by the Outside/Inside Agency were designated and approved by the Responsible Level 3 or NANDTB? YES NO

Evidenced by:

5.7 Does the audit verify that the examiners used by the Outside/Inside Agency were Level 3 approved in the method(s)? YES NO

Compliance Assessment Guidance: NA should be used were there are no exams administered.

Evidenced by:

5.8 Does the audit verify that the Outside/Inside Agency had sufficient instructors and/or examiners to cover all methods employed by the agency? YES NO

Evidenced by:

5.9 Does the audit verify that instructors and/or examiners were approved in writing by the Responsible Level 3 or the NANDTB? YES NO

Evidenced by:

5.10 Does the audit criteria ensure that the relevant codes, standards and specifications were available? YES NO

Evidenced by:

5.11 Does the audit criteria include an evaluation of contract review to ensure that clients' requirements were fully specified, recorded and understood by the examination body? YES NO

Evidenced by:

5.12 Does the audit criteria include an evaluation that the examination body had appointed appropriately qualified and experienced examination staff? YES NO

Evidenced by:

5.13 Does the audit criteria include an evaluation that the Outside/Inside Agency ensured confidentiality, impartiality and security? YES NO

Evidenced by:

5.14 Formal Training

5.14.1 Does the audit verify that training facilities and classrooms provided an environment that was conducive to learning? YES NO

Evidenced by:

5.14.2 Does the audit verify that training facilities and classrooms were sufficiently well equipped with equipment and training aids, models, samples etc? YES NO

Evidenced by:

5.14.3 Does the audit verify that sufficient number of representative test samples containing natural or artificial features and / or flaws were available to cover the range of testing to be conducted by the candidate? YES NO

Compliance Assessment Guidance: Test samples used for training practical examinations shall not be used for training purposes.

Evidenced by:

5.14.4 Does the audit verify that the equipment used for practical training purposes was sufficiently compatible to that which the candidate would use in the performance of their job? YES NO

Compliance Assessment Guidance: NDT techniques within the method used for training are the similar techniques to those used by the candidates employer.

Evidenced by:

5.14.5 Does the audit verify that where appropriate safety related training was provided? YES NO

Evidenced by:

5.14.6 Is there evidence to show that all required records of training, qualification and certification were available during the audit? YES NO

Evidenced by:

5.15 Administration of Examinations

5.15.1 Does the audit criteria include the compilation of written specific and practical examinations which were appropriate to scope? YES NO

Compliance Assessment Guidance: These examinations shall be relevant to products, NDT procedures and processes.

Evidenced by:

5.15.2 Does the audit verify that the examinations were checked and verified against a client's requirements? YES NO

Evidenced by:

5.15.3 Does the audit verify that the content of the examinations were balanced and appropriate to the approval level? YES NO

Evidenced by:

5.15.4 Does the audit verify that the marks awarded to a successful candidate achieved a minimum of 70% for each examination and 80% overall for each method? YES NO

Evidenced by:

5.15.5 Does the audit verify that latest results for written and practical examinations are on file? YES NO

Compliance Assessment Guidance: The Outside Agency shall maintain the results of all qualification examinations.

Evidenced by:

5.16 General Examinations

5.16.1 Does the audit verify that General examinations were closed book? YES NO

Evidenced by:

5.16.2 Does the audit verify the minimum numbers of questions were administered? YES NO

Compliance Assessment Guidance: Minimum of 10 questions for level 1 limited and 40 questions for level 1, 2 and 3

Evidenced by:

5.17 Specific Examinations

5.17.1 Does the audit verify that Specific examinations were open book? YES NO

Evidenced by:

5.17.2 Does the audit verify the minimum numbers of questions were administered? YES NO

Compliance Assessment Guidance: Minimum of 8 questions for level 1 limited and 30 questions for level 1, 2 and 3.

Evidenced by:

5.17.3 Does the audit verify what reference material was made available to the candidate? YES NO

Compliance Assessment Guidance: reference material can be specifications, tables formulas etc.

Evidenced by:

5.17.4 Does the audit verify that answers to specific examination questions demonstrated the candidates understanding of information contained within the reference documents rather than merely its location? YES NO

Evidenced by:

5.17.5 Does the audit verify were the specific examination covered a wider scope within the method used? YES NO NA

Compliance Assessment Guidance: NA is to be used were wider scope examinations are not used.

Evidenced by:

5.18 Practical Examinations

5.18.1 Does the audit verify that test samples used for the practical examination contained known discontinuities or conditions? YES NO

Evidenced by:

5.18.2 Does the audit verify that a written checklist had been developed for the practical examination? YES NO

Compliance Assessment Guidance: The checklist shall be developed by the Outside Agency to assure adequate coverage and assist in the administration and grading of the examination?

Evidenced by:

5.18.3 Does the audit verify that in addition to a written checklist, the Outside Agency had determined how the examination results obtained by the candidate were to be documented? YES NO

Compliance Assessment Guidance: This can be part maps, drawings, sketches, written descriptions etc.

Evidenced by:

5.18.4 Does the audit verify were the practical examination covered a wider scope within the method? YES NO NA

Compliance Assessment Guidance: NA is to be used were wider scope examinations are not used.

Evidenced by:

5.18.5 Does the audit verify that all discontinuities, flaws or conditions as specified were detected? YES NO

Evidenced by:

5.18.6 Does the audit verify that test pieces, used for practical examinations, were identified, documented and held securely? YES NO

Evidenced by:

5.18.7 Does the audit verify that for level 3 candidates the practical examination involved the preparation of a NDT procedure or work instruction appropriate to the client's current requirements for the method? YES NO

Evidenced by:

5.18.8 Does the audit verify that the NDT procedure or work instruction was developed in conjunction with the general and/or specific examination(s)? YES NO

Evidenced by:

5.19 Training Outlines and Material

5.19.1 Does the audit verify that all training was conducted in accordance with a detailed course outline? YES NO

Evidenced by:

5.19.2 Does the audit verify that, as a minimum, training included: YES NO

- Basic theory
- Test principles, including choice of NDT methods, relevance to different materials and part and test variables
- Product forms and materials: defect formation and characterization
- Equipment operation and standardization
- The importance of appropriate processing steps and parameters
- Safety
- Applicable techniques and the advantages and disadvantages of each method and technique
- Limitations and capabilities of each method and technique
- Applicable specifications, codes, operating procedures and work instructions
- If applicable, evaluation, interpretation and documentation of inspection results

Evidenced by:

5.19.3 Does the audit verify that the Outside Agencies Responsible Level 3 had verified that all training met the client's requirements? YES NO

Evidenced by:

AUDIT SUMMARY

Audit Date		
Audit Scope		
Audit Number		
Auditor Team of DGCA	1.	
	2.	
	3.	
	4.	
Auditee Team of NANDTB-TR	1.	
	2.	
	3.	
	4.	

AUDIT RESULTS

Total Findings			
Finding No	Related Question	Finding Description	Finding Level