

NANDTB 09.B / AUDIT CRITERIA TO BE USED ON AUDITS OF TRAINING AND EXAMINATION CENTERS

The Board (NANDTB-TR) aims that all Training and Examination Centers activities shall be subject to periodic audit as part of an initial and continuous improvement strategy.

1. INTRODUCTION

Training and Examination Center has obligations under the recognition by Turkish CAA and Turkish National Aerospace NDT Board (NANDTB-TR). This scope of audit is to monitor and report the requirements of The Training and Examination Centers described in SHT-NDT and the Board documentation. This procedure describes the Board's audit of the Training and Examination Centers processes.

2. AUDITORS

The Chairman will appoint a competent Board member(s) as auditor, or use an external auditor if appropriate. The audit is both administrative and technical. Accordingly, it needs be undertaken by a NDT Level 3.

3. AUDIT REPORT

The Auditor(s) will provide a written audit report of findings and observations to the Board as soon as practicable after its completion, not later than 30 days. The audit report shall identify each element of the audit guide below.

- a. Findings of non-compliance and root cause,
- b. Observations of potential non-compliance,
- c. Opportunities for improvement.

The final audit report is sent to the Training and Examination Center.

4. REMEDIAL, CORRECTIVE and PREVENTATIVE ACTIONS

The Training and Examination Center's Coordinator will prepare a preliminary response for remedial, corrective and preventative actions for non-compliance(s), and any actions to be taken on observations. The Secretary's final audit report is presented to the Board at the next scheduled meeting, and retained along with the audit report as part of the agenda documents.

5. RESPONSIBILITIES

a. Chairman appoints the auditor(s), reviews the Training and Examination Center's response for corrective and preventative actions.

b. Auditor(s) conducts the audit in accordance with these guidelines (Part 6 Audit Guide) and reports to the Chairman within 30 days of completion. Auditor(s) also reviews the Training and Examination Center's response for corrective and preventative actions.

c. Secretary receives copies of the audit, remedial, corrective and preventative action confirmation and audit response for tabling at the next Board meeting, and retains on file as part of the meeting agenda documents.

6. AUDIT GUIDE

Audit date	
Audit number	
Organization Name	
Interviewees in the Organization	1.
	2.
	3.
Audit Team	1.
	2.
	3.

6.1. Part A

The auditor(s) will assess and provide a written report on each of the following organizational elements required by EN 4179, SHT-NDT and the Board documentation.

6.1.1. Type of Audit

6.1.1.1. Scheduled initial or review audit.

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6.1.1.2. Follow up audit.

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6.1.2. Organizational Structure, Quality and Documentation System

6.1.2.1. Does the organization have any Turkish CAA or EASA certificate(s) for Design, Production, and Maintenance or Training and Examination Center approval? YES NO

Evidenced by: _____

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|----------|--|-----|----|
| 6.1.2.2. | Does the organization have a written practice covering the minimum requirements of EN 4179 and Board Manual?
Evidenced by: _____ | YES | NO |
| 6.1.2.3. | Is the written practice stating standards to which it is compliant?
Evidenced by: _____ | YES | NO |
| 6.1.2.4. | Is the written practice covering the methods and each method related technique?
Evidenced by: _____ | YES | NO |
| 6.1.2.5 | Is the written practice covering the levels of qualification?
Evidenced by: _____ | YES | NO |
| 6.1.2.6 | Is the written practice covering personnel duties and responsibilities in the related methods?
Evidenced by: _____ | YES | NO |
| 6.1.2.7 | Is the written practice covering the minimum requirements for training?
Evidenced by: _____ | YES | NO |
| 6.1.2.8 | Is the written practice covering the minimum requirements related to experience?
Evidenced by: _____ | YES | NO |
| 6.1.2.9 | Is the written practice covering the minimum requirements for examination?
Evidenced by: _____ | YES | NO |
| 6.1.2.10 | Is the written practice covering the minimum requirements for keeping the records?
Evidenced by: _____ | YES | NO |
| 6.1.2.11 | Is the written practice covering the minimum requirements for expiration, suspension and revocation of approvals?
Evidenced by: _____ | YES | NO |
| 6.1.2.12 | Is the written practice covering the minimum requirements for certification and recertification requirements?
Evidenced by: _____ | YES | NO |

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|----------|---|-----|----|
| 6.1.2.13 | Is the written practice covering the minimum requirements for the re-certification option to be used for the Level 3, whether it was by examination and/or by a credit system?
Evidenced by: _____ | YES | NO |
| 6.1.2.14 | Does the organization have Training and Examination Center NDT Manual?
Evidenced by: _____ | YES | NO |
| 6.1.2.15 | Does the organization have organizational chart that shows the position of Training and Examination Center and is it appropriate?
Evidenced by: _____ | YES | NO |
| 6.1.2.16 | Are the responsibilities of nominated people who are Quality Manager and Responsible Level 3 described clearly in the Training and Examination Center NDT Manual?
Evidenced by: _____ | YES | NO |
| 6.1.2.17 | Does the Training and Examination Center NDT Manual contain a responsible person list for theory and practical exams?
Evidenced by: _____ | YES | NO |
| 6.1.2.18 | Does the Training and Examination Center have adequate training personnel for planning and conducting training and exams according to its scope of work?
Evidenced by: _____ | YES | NO |
| 6.1.2.19 | Does the Training and Examination Center NDT Manual have general information for places where the training and examination activities take place?
Evidenced by: _____ | YES | NO |
| 6.1.2.20 | Does the Training and Examination Center NDT Manual have any control procedure for conducting trainings at the places not approved by the Turkish CAA and the Board?
Evidenced by: _____ | YES | NO |
| 6.1.2.21 | Does the Training and Examination Center NDT Manual have revision record page and is it properly recorded?
Evidenced by: _____ | YES | NO |

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|----------|---|-----|----|
| 6.1.2.22 | Has the Training and Examination Center been audited for security of theory and practical exams and competency of training processes that is described in the scope of work by a Quality System with Independent auditing procedure?
Evidenced by: _____ | YES | NO |
| 6.1.2.23 | Is there any revision on the Training and Examination Center NDT Manual since last audit?
Evidenced by: _____ | YES | NO |
| 6.1.2.24 | Do the contracts between the clients and the center cover the clients' requirements for training an examination concept?
Evidenced by: _____ | YES | NO |
| 6.1.2.25 | Is there a policy to protect the clients' confidentiality and security?
Evidenced by: _____ | YES | NO |

6.2. Part B

The auditor(s) will assess and provide a written report on each of the following qualification elements required by EN 4179, SHT-NDT and the Board documentation.

6.2.1. Training Personnel

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|----------|--|-----|----|
| 6.2.1.1. | Does the Responsible Level 3 have EN 4179 Level 3 certificates for the methods that is mentioned in Training and Examination Center scope of work and other required qualification that is described in EN 4179, SHT-NDT and the Board documentation?
Evidenced by: _____ | YES | NO |
| 6.2.1.2. | Does the Responsible Level 3 who will approve the training activities have ten years practical experience in aerospace industry?
Evidenced by: _____ | YES | NO |
| 6.2.1.3. | Do the training personnel have required qualification that is described in EN 4179, SHT-NDT and the Board documentation?
Evidenced by: _____ | YES | NO |
| 6.2.1.4. | Do the Level 2 and 3 training personnel who are designated by Responsible Level 3 have five years aerospace practical experience within the past ten years?
Evidenced by: _____ | YES | NO |

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|----------|--|-----|----|
| 6.2.1.5. | Is the scope of work for Trainers described clearly?
Evidenced by: _____ | YES | NO |
| 6.2.1.6. | Are the trainers, theory and practical exam personnel able to reach the documents that describe Training and Examination Center scope of works?
Evidenced by: _____ | YES | NO |
| 6.2.1.7. | Does the Quality System Manager have at least two years' experience in aerospace industry?
Evidenced by: _____ | YES | NO |
| 6.2.1.8. | Does the Quality System Manager have trainings about Quality Systems, Non Destructive Testing Familiarization and Human Factors?
Evidenced by: _____ | YES | NO |
| 6.2.1.9. | Do the Trainers and Examiners; | | |
| | a. Have the skills and knowledge to interpret codes, standards, and specifications aerospace industry?
Evidenced by: _____ | YES | NO |
| | b. Have the skills and knowledge to selecting the method and technique for a specific inspection;
Evidenced by: _____ | YES | NO |
| | c. Have the skills and knowledge to verify the adequacy of procedures and work instructions;
Evidenced by: _____ | YES | NO |
| | d. Have a general knowledge of other NDT methods and product manufacturing and inspection technologies used by aerospace industry?
Evidenced by: _____ | YES | NO |
| | e. Have a basic knowledge of aircraft maintenance?
Evidenced by: _____ | YES | NO |
| | f. Have the skills and knowledge to provide or direct training, and examination?
Evidenced by: _____ | YES | NO |

6.3. Part C

The auditor(s) will assess and provide a written report on each of the following theory training materials elements required by EN 4179, SHT-NDT and the Board documentation.

6.3.1. Training Books and Auxiliary Training Materials

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|----------|--|-----|----|
| 6.3.1.1. | Have the training books been prepared to contain minimum requirements that are given by the Board approved syllabus?
Evidenced by: _____ | YES | NO |
| 6.3.1.2. | Have the training books been prepared to meet the aviation industry requirements?
Evidenced by: _____ | YES | NO |
| 6.3.1.3. | Have the training books been prepared well organized to facilitate learning of candidates?
Evidenced by: _____ | YES | NO |
| 6.3.1.4. | Do the training books have simple language and colored figures to facilitate the learning?
Evidenced by: _____ | YES | NO |
| 6.3.1.5. | Does the Training and Examination Center have enough number of books to conduct the trainings described in organization scope of work?
Evidenced by: _____ | YES | NO |
| 6.3.1.6. | Are the auxiliary training documents that are aircraft, engine, component manufacturer's manuals and national/international standards, codes and specifications adequate to cover related training?
Evidenced by: _____ | YES | NO |
| 6.3.1.7. | Are the visual and aural training materials that are presentations, films, video, figures, graphics, tables etc. adequate to cover related training and to facilitate the learning?
Evidenced by: _____ | YES | NO |
| 6.3.1.8. | Are the auxiliary training materials that are computers, projectors, blackboards adequate to cover related training and positioned properly in the classroom?
Evidenced by: _____ | YES | NO |

6.4. Part D

The auditor(s) will assess and provide a written report on each of the following practical training materials elements required by EN 4179, SHT-NDT and the Board documentation.

6.4.1. Tool, Equipment and test pieces

Does the Training and Examination Center have adequate number of test pieces with natural or artificial discontinuities that is used for practical trainings to cover related training? YES NO
Evidenced by: _____

6.4.1.1. Liquid Penetrant Testing (PT)

6.4.1.1.1. Does the Training and Examination Center have adequate number of Liquid Penetrant Testing tool, equipment, consumable and test pieces with natural or artificial discontinuities that is used for Liquid Penetrant Testing practical trainings? YES NO
Evidenced by: _____

6.4.1.1.2. Does the Training and Examination Center have auxiliary materials (Magnifiers, lens etc.)? YES NO
Evidenced by: _____

6.4.1.1.3. Does the Training and Examination Center have tool and equipment that is capable of performing process controls that is described in ASTM E 1417? YES NO
Evidenced by: _____

6.4.1.2. Magnetic Particle Testing (MT)

6.4.1.2.1. Does the Training and Examination Center have adequate number of Magnetic Particle Testing tool, equipment, consumable and test pieces with natural or artificial discontinuities that is used for Magnetic Particle Testing practical trainings? YES NO
Evidenced by: _____

6.4.1.2.2. Does the Training and Examination Center have auxiliary materials (Magnifiers, lens etc.)? YES NO
Evidenced by: _____

6.4.1.2.3. Does the Training and Examination Center have tool and equipment that is capable of performing process controls that is described in ASTM E 1444? YES NO
Evidenced by: _____

6.4.1.3. Eddy Current Testing (ET)

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|------------|---|-----|----|
| 6.4.1.3.1. | Does the Training and Examination Center have adequate number of Eddy Current Testing tool, equipment, consumable and test pieces with natural or artificial discontinuities that are used for Eddy Current Testing practical trainings?
Evidenced by: _____ | YES | NO |
| 6.4.1.3.2. | Does the Training and Examination Center have auxiliary materials (Magnifiers, lens etc.)?
Evidenced by: _____ | YES | NO |
| 6.4.1.3.3. | Does the Training and Examination Center have tool and equipment that is capable of performing process controls that is described in related standards and manufacturer's instructions?
Evidenced by: _____ | YES | NO |

6.4.1.4. Ultrasonic Testing (UT)

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|------------|--|-----|----|
| 6.4.1.4.1. | Does the Training and Examination Center have adequate number of Ultrasonic Testing tool, equipment, consumable and test pieces with natural or artificial discontinuities that is used for Ultrasonic Testing practical trainings?
Evidenced by: _____ | YES | NO |
| 6.4.1.4.2. | Does the Training and Examination Center have auxiliary materials (Calibration blocks, reference blocks etc.)?
Evidenced by: _____ | YES | NO |
| 6.4.1.4.3. | Does the Training and Examination Center have tool and equipment that is capable of performing process controls that is described in related standards and manufacturer's instructions?
Evidenced by: _____ | YES | NO |

6.4.1.5. Radiographic Testing (RT)

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| 6.4.1.5.1. | Does the Training and Examination Center have adequate number of Radiographic Testing tool, equipment, consumable and test pieces with natural or artificial discontinuities that is used for Radiographic Testing practical trainings?
Evidenced by: _____ | YES | NO |
| 6.4.1.5.2. | Does the Training and Examination Center have auxiliary materials (Lead screens, marking letters, step wedges, densitometers, IQIs, film viewers, magnifiers, lens etc.)?
Evidenced by: _____ | YES | NO |

- 6.4.1.5.3. Does the Training and Examination Center have tool and equipment that is capable of performing process controls that is described in related standards and manufacturer's instructions (Ref.: ASTM E 1742)? YES NO
Evidenced by: _____
- 6.4.1.5.4. Has the Radiographic Testing facility been established according to national regulations? YES NO
Evidenced by: _____
- 6.4.1.5.5. Has the Radiographic Testing Equipment (X-Ray Machine, Gamma Ray Sources) been licensed by Turkish Atomic Energy Authority (TAEA)? YES NO
Evidenced by: _____
- 6.4.1.5.6. Does the Training and Examination Center have radiometer, survey meter that is used for measuring ionizing radiation level? YES NO
Evidenced by: _____
- 6.4.1.5.7. Does the radiometer or survey meter that is used for measuring ionizing radiation level have calibration tag that is current? YES NO
Evidenced by: _____
- 6.4.1.5.8. Does the Training and Examination Center have dangerous and emergency situation action plan? YES NO
Evidenced by: _____
- 6.4.1.5.9. Does the Training and Examination Center appointed a Radiation Protection Officer? YES NO
Evidenced by: _____
- 6.4.1.5.10. Does the Radiation Protection Officer get Radiation Protection Training for Industrial Radiography and its certificate from TAEA? YES NO
Evidenced by: _____
- 6.4.1.5.11. Does the Radiographic Testing Trainers and Examiners get Radiation Protection Training for Industrial Radiography and its certificate from TAEA? YES NO
Evidenced by: _____
- 6.4.1.5.12. Does the Training and Examination Center have a dark room that is furnished properly? YES NO
Evidenced by: _____

6.4.1.6. Thermographic Testing (TT)

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|------------|--|-----|----|
| 6.4.1.6.1. | Does the Training and Examination Center have adequate number of Thermographic Testing tool, equipment, consumable and test pieces with natural or artificial discontinuities that is used for Thermographic Testing practical trainings?
Evidenced by: _____ | YES | NO |
| 6.4.1.6.2. | Does the Training and Examination Center have auxiliary materials (Heaters, Refrigerators, Viewers, Magnifiers, lens etc.)?
Evidenced by: _____ | YES | NO |
| 6.4.1.6.3. | Does the Training and Examination Center have tool and equipment that is capable of performing process controls that is described in related standards and manufacturer's instructions?
Evidenced by: _____ | YES | NO |

6.5. Part E

The auditor(s) will assess and provide a written report on each of the following classroom and laboratories elements required by EN 4179, SHT-NDT and the Board documentation.

6.5.1. Training Environment (classroom, laboratory etc.)

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|----------|--|-----|----|
| 6.5.1.1. | Is the theoretical training area located within the facility appropriate?
Evidenced by: _____ | YES | NO |
| 6.5.1.2. | Can theoretical training area provide enough space for the participants?
Evidenced by: _____ | YES | NO |
| 6.5.1.3. | Is the condition; "Classroom size cannot exceed 15 trainees for each teacher/instructor/assessor", met for each individual class?
Evidenced by: _____ | YES | NO |
| 6.5.1.4. | Does the theoretical training area have sufficient lighting?
Evidenced by: _____ | YES | NO |
| 6.5.1.5. | Does the theoretical training area have sufficient air conditioning?
Evidenced by: _____ | YES | NO |
| 6.5.1.6. | Does the theoretical training area have sufficient sound isolation?
Evidenced by: _____ | YES | NO |

6.5.1.7. Does theoretical training area has suitable/adequate training equipment (such as desks, chairs etc.)? YES NO
Evidenced by: _____

6.5.1.8. Does the Practical Training tool and environment (such as shops, laboratories, furnishings, etc.) have suitable/adequate for the training? YES NO
Evidenced by: _____

6.5.1.9. Does the Training and Examination Center provide a workable and comfortable office/working area for the training instructors and practical examiners? YES NO
Evidenced by: _____

6.5.1.10 Does the the Training and Examination Center provide adequate safety instructions for the training? YES NO
Evidenced by: _____

6.6. Part F

The auditor(s) will assess and provide a written report on each of the following Privacy, Objectivity and Security elements required by EN 4179, SHT-NDT and the Board documentation.

6.6.1. Privacy, Objectivity and Security

6.6.1.1. Are the test pieces and exam questions kept in a secured area via controlled access? YES NO
Evidenced by: _____

6.6.1.2. Are the sample parts that used for practical training and test pieces that used for the exam kept in separated areas? YES NO
Evidenced by: _____

6.6.1.3. Are the training and examination processes objectively and confidentially carried out by the Training and Examination Center? YES NO
Evidenced by: _____

6.7. Part G

The auditor(s) will assess and provide a written report on each of the following Examination elements required by EN 4179, SHT-NDT and the Board documentation.

6.7.1. Examinations

6.7.1.1. Does the Training and Examination Center request Eye Examination Reports according to EN 4179 from each examinee? YES NO
Evidenced by: _____

6.7.1.2. Does the Training and Examination Center prepare Level 1 and Level 2 General, Specific, and Practical exams and also Level 3 Basic, Method, and Specific examinations according to EN 4179? YES NO
Evidenced by: _____

6.7.1.3. Are the exam questions approved by the Responsible Level 3? YES NO
Evidenced by: _____

6.7.1.4. Is the number of questions to be asked in the exams enough to meet the requirements of the EN 4179 and company written practice? YES NO
Evidenced by: _____

6.7.1.5. Is the success/ Pass criteria meets requirements of the EN 4179 which is minimum of 70% for each examination and 80% overall for each method
Evidenced by: _____

6.7.1.6. Are the examination and grading processes performed by NDT Level 3 or assigned examiner? YES NO
Evidenced by: _____

General Examination

6.7.1.7. Are the general examinations performed as closed book? YES NO
Evidenced by: _____

6.7.1.8. Are the number of questions in the general examination in lined with EN 4179 which are *Minimum of 10 questions for level 1 limited and 40 questions for level 1, 2 and 3 ?* YES NO
Evidenced by: _____

6.7.1.9. Does the general examination involve basic principles of the related method? YES NO
Evidenced by: _____

6.7.1.10 Are the examination questions prepared complying with the company written practice? YES NO
Evidenced by: _____

Specific Examination

6.7.1.11 Are the Specific Examinations performed as open book? YES NO
Evidenced by: _____

6.7.1.12 Are the questions for Specific Exam prepared according to the company written practice and the related maintenance documents? YES NO
Evidenced by: _____

6.7.1.13 Are the number of questions in the specific examination in lined with EN 4179 which are *Minimum of 8 questions for level 1 limited and 30 questions for level 1, 2 and 3*? YES NO
Evidenced by: _____

6.7.1.14 Is the scope of the specific examination enough to measure the candidates understanding of information contained within the reference documents? YES NO
Evidenced by: _____

6.7.1.15 Are the reference materials available to the candidate during the specific exam? YES NO
Evidenced by: _____

Practical Examination

6.7.1.15 Are the practical exam parts approved by responsible Level 3? YES NO
Evidenced by: _____

6.7.1.16. Do the practical exams contain the description of at least two exam parts, related NDT procedures, the documents that contain inspection steps, and results of the exams? YES NO
Evidenced by: _____

6.7.1.17. Do the parts used in practical exams meet the requirements of the candidates work environment? YES NO
Evidenced by: _____

6.7.1.18. Do the parts used in practical exams contain known artificial defects? YES NO
Evidenced by: _____

6.7.1.19. Do the parts used in practical exams have drawings stating the locations of artificial defects? YES NO
Evidenced by: _____

6.7.1.20. Is there a checklist available to evaluate the practical examination results? YES NO
Evidenced by: _____

6.7.1.21. Do any additional explanations like maps, sketch, descriptions use during practical examination? YES NO
Evidenced by: _____

6.7.1.22. Does the Practical Examination include Work Instruction or Procedure development? YES NO
Evidenced by: _____

6.8. Part H

The auditor(s) will assess and provide a written report on each of the following Record System elements required by EN 4179, SHT-NDT and the Board documentation.

6.8.1. Record System (Training and Examination Records)

6.8.1.1. Does the Training and Examination Center have a specific and reliable system for recording and keeping the training and examination records? YES NO
Evidenced by: _____

6.8.1.2. Does the Training and Examination Center keep the entire records of each individual student's training, examination and evaluation/assessment data, for following 10 years after the training? YES NO
Evidenced by: _____

6.8.1.3. Does the Training and Examination Center keep the entire records of each instructor's personal experiences/qualifications, training-education backgrounds and on-going trainings? YES NO
Evidenced by: _____

6.8.1.4. Are the training and examination records kept in accordance with SHT-NDT and the Board documentation? YES NO
Evidenced by: _____

6.8.1.5. Does the organization have enough space/conditions for keeping the training and examination records? YES NO
Evidenced by: _____

6.8.1.6. Does Quality system manager meet the requirements stated in SHT-NDT? YES NO
Evidenced by: _____

6.8.1.7. Does the Training and Examination Center NDT Manual have internal audit and evaluation procedures? YES NO
Evidenced by: _____

6.8.1.8. Are the audit and evaluation records existed?

YES NO

Evidenced by: _____

Additional questions may be asked by the audit team:

Interviewees in the Organization	1.
	2.
	3.
Audit Team	1.
	2.
	3.