

NATIONAL AEROSPACE COMMITTEE FOR NON-DESTRUCTIVE CONTROLS

ITALIAN AEROSPACE NON DESTRUCTIVE TESTING BOARD



ITANDTB 05

AUDIT AND APPROVAL OF TRAINING AND EXAMINATION CENTERS FOR LEVELS 1 AND 2 NDT QUALIFICATIONS

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STATUS OF REVISIONS

Date		Issue	
March 15, 2018	March 15, 2018		ITANDTB 05
Revision	Paragraph and revised page number		synthetic description changes
Rev. 1 April 2006 ITA-NG-003-A2	P. 2; 4; 6; 7; 8; 9; 10 and Annex	0; 14; 15; 16; 17;	Insertion of the initials ITA-NG-001-B e Annex
Rev. 2 July 2014 ITA-NG-003-A2	Where mentione Par. 1.3; 3.1.8 a) Par. 3 Par. 3.1.8 Par. 5.2 Par. 6		Last abbreviation deleted "B"; Deleted reference to the UNI 30012-1 standard; Requirements update The obligation to send the Qualification Report has been inserted
Rev. 3 December 2015	Check-list		Revised Checklist for the evaluation of the CAE approval
Rev. 0 October 30, 2017 prITANDTB 05	Where mentione Updated reference New Coding Check-list		Deleted reference to ITA-NG- 001; EN 4179 / NAS410 inserted ITANDTB 05 Updated
Rev. 0 11 December 2017 ITANDTB 05	Approval of the F (CP) ITANDTB o November 16, 20		Eliminated abbreviation "pr" Approval of the standard by the ITANDTB CP
Rev. 1 February 13, 2018	Completely revis	ed document	Completely revised document
Rev. 2 March 15, 2018	Completely revis	ed document	Completely revised document
Rev. 3 January 17, 2019	Page 1, par 5.6 c par. 9, par. 10.6. Check-List 6, 63 Attachment C Attachment D		Updates
Rev. 4 December 4, 2020		, 10.3, 10.6.2, 11.2,	Updates





	CONTENT INDEX		
Status of	of revisions	page	2
Conten	t index	page	3
0.	Definitions	page	4
1.	Generality	page	5
2	Purpose	page	5
3	References	page	5
4	Requirements	page	5
5	Documentation and Procedures	page	5
5.1	Operative manual	page	5
5.2	Organizational Document	page	6
5.3	Technical Documentation	page	6
5.4	Training Procedures	page	7
5.5	Syllabus	page	7
5.6	Exam Procedures	page	7
5.7	Questionnaires	page	7
6	Environment Requirements	page	8
7	Equipment and Equipment	page	8
8	Training and Exam Samples	page	9
9	Methods for Approval	page	9
10	Validity	page	10
10.1	Period	page	10
10.2	Renewal of Approval	page	10
10.3	Variation of validity for NDT methods	page	10
10.4	Revocation	page	10
10.5	List of CAEs	page	10
10.6	Obligations of the CAE	page	10
10.6.1	External Agencies	page	11
10.6.2	External and Internal Agencies	page	11
11	Auditing activities	page	11
11.1	Auditor	page	11
11.2	Auditing Team	page	11
11.3	Guideline for Auditors	page	11
то	Attachment A: Check List for CAE approval assessment	page	13
В.	Annex B: Purpose of Approval	page	23
C.	Annex C: ITANDTB Qualification Report	page	24
D.	Annex D: Requirements for questionnaire preparation	page	25
IS	Annex E: Audit report	page	26





AUDIT AND APPROVAL OF TRAINING AND EXAMINATION CENTERS FOR LEVELS 1 AND 2 NDT QUALIFICATIONS

0. DEFINITIONS /ACRONYMS

0.1	External Agencies	A company or an organization external to the Company (employer) which, when approved, can train and qualify internal and external NDT personnel of the Company.	
0.2	Internal Agencies	An organization within the Company (employer) which, when approved, can train and qualify NDT personnel within the Company.	
0.3	Approval	Act by which the ITANDTB recognizes an Agency as an CAE.	
0.4	Auditor	Par 5.1.6 Auditor EN4179 / NAS410.	
0.5	Company	Employer	
0.6	CAE – Training and Exam Center	ITANDTB approved center for training and administration of exams for NDT Level 1 and 2. It includes both External Agencies and Internal Agencies.	
0.7	NDT	Non-destructive testing	
0.8	Examiner	A Level 3 approved in accordance with the requirements of the EN4179 / NAS410 and designated by Level 3 Responsible for the administration of all or part of the qualification process in the NDT methods for which the examiner is approved	
0.9	ITANDTB	Italian Aerospace Committee for Non- Destructive Testing	
10	OJT	On Job Training	

For other definitions not shown in the above table, refer to EN4179 / NAS410 latest published revision, paragraph 3 and its sub-paragraphs.



1. GENERALITY

The ITANDTB, among the various missions, controls the training and examination of Level 1 and 2 NDT personnel through the approval, renewal and audit of CAE's. This document defines the requirements for the CAE's approval, renewal and surveillance.

2. PURPOSE

This document defines the minimum requirements that a CAE shall apply in order to carry out the training and qualification examinations of the NDT personnel assigned to Level 1 and 2 according to the requirements of the EN4179 / NAS410 standard as well as the procedures for its approval, renewal, surveillance and revocation / expiration done by ITANDTB.

3. **REFERENCES**

3.1 EN 4179	Aerospace Series - Qualification and approval of personnel for Non Destructive Testing		
3.2 NAS410	NAS Certification & Qualification of Nondestructive Test Personnel		
3.3 AS / EN 9100	Quality Systems Aerospace Model for Quality Assurance in Design Development Production Installation and Servicing		
3.4 EN 9110	Quality Management Systems Model for Quality Assurance for Aerospace Maintenance Organization		
3.5 EN ISO 19011	Guidelines for auditing management systems		
3.6 ISO 17025	General Requirements for the Competence of Testing and Calibration Laboratories		

4. **REQUIREMENTS**

4.1 CAE shall have an organization which have specific NDT skills, operating through detailed procedures

It must be able to manage training and to administer qualification exams for at least two of the common methods recognized by EN4179 / NAS410.

- **4.2** If the resources, such as NDT equipment, exam samples, training and exam facilities are not located at the CAE site but at another CAE or at the employer site on behalf of which it trains and administers qualification exams, CAE must firstly declare it to ITANDTB.
- **4.3** CAE shall have an adequate collection of laws, specifications, procedures, codes and regulations necessary for carrying out both training and qualification.
- **4.4** CAE shall operate in compliance with ISO 9001, AS / ISO 9100 or ISO 17025 certified Quality Management System or, alternatively, for Part 145 Companies, to be in possession of the Certificate of Approval of the Maintenance Company issued by National Aviation Authority.

5. DOCUMENTATION AND PROCEDURES

5.1 OPERATIVE MANUAL / WRITTEN PRACTICE

CAE shall have an Operational Manual which, in accordance with the requirements of EN4179 / NAS410, contains all the procedural steps necessary for both development and implementation of the NDT qualification and approval process (if applicable) of the NDT personnel. In particular, CAE will have to detail:



- 1. the list of procedures for carrying out training and examinations
- 2. the procedures for conducting classroom and practical training
- 3. the evaluation of the employer written practice before training / qualification of NDT personnel
- 4. the reference to the signed contracts. These contracts shall specify the operating procedures, process specifications, codes, standards, product technology, for the NDT method for which CAE has been appointed
- 5. the assessment of the product technology requirements within employer of the NDT personnel to be trained / qualified
- 6. the assessment of the suitability of training samples and practical tests
- 7. the NDT methods for which the personnel shall be trained, qualified and / or approved (if applicable)
- 8. the qualification levels
- 9. the requirements, for each method and level, in terms of OJT hours (experience), classroom training hours, Vision tests requirements
- 10. for each level, duties and responsibilities
- 11. requirements for qualification / approval and re-qualification / re-approval of NDT personnel
- 12. requirements for renewal of the NDT qualification of all levels and requirements for annual verification
- 13. Requirements for the renewal of the Level 3 qualification (for exam or with the credit system)
- 14. requirements for expiration, suspension, revocation and reinstatement
- 15. procedures for recording and maintaining documentation
- 16. the detailed procedures for conducting and for evaluating NDT exams
- 17. when applicable, declaration to use NDT equipment, examination samples, training and examination facilities external to the CAE. In this case, the CAE must give evidence of the contractual agreement.
- 18. Examination score must meet at least the requirements of par. 7.2.2 of EN4179 / NAS 410.

The Operative Manual must be approved by the applicable Responsible Level 3.

5.2 ORGANIZATIONAL DOCUMENT

CAE shall have an organizational document in which, as a minimum, is reported:

a) Organization chart and complete organizational scheme that explains and describes the responsibilities and duties of each employee who carries out technical and / or managerial activities relevant for training and qualification purposes, indicating the Responsible Level 3.

Responsible Level 3 shall be ITANDTB Level 3 qualified. He may use further examiner/s (ITANDTB Level 3) if he/she is not approved for all methods for which the CAE is approved.

- b) Limited to the NDT methods for which CAE is approved and for each method / level:
 - 1. the list of syllabi,
 - 2. the list of teaching material,
 - 3. the list of questionnaires (General and Specific). The questionnaires for the specific exam shall be developed in accordance with the requirements of the Employer / Client specifications (employer-based exam),
 - 4. the list of checklists used for the practical exam evaluation and, where applicable, the recordings (ultrasonic maps, radiographic records, thermographic and shearographic maps.)
 - 5. the list of samples used for training,
 - 6. the list of test samples (with indication of the characterization sheet) signed by the Responsible Level 3 or by the Level 3 Examiner (*),
 - 7. the list of equipment (in line with the state of the art technology) used for the practical examination (*),



- 8. for each device, evidence of efficiency (periodic calibration),
- 9. the list of Levels 2 and 3 personnel and of the Responsible Level 3. In the event that CAE uses Level 2, Level 3 and/or Responsible Level 3 taken outside its Organization, This CAE shall provide clear evidence of the persons involved with related contractual evidence,
- 10. the general description of the facilities identified for both training and examinations,
- 11. "forms" used,
- 12. Training and examination samples must be suitable and representative of the configurations for which the qualification is awarded.

(*) In the case of self-employed or CAE who are not in possession of their own equipment and test samples suitable and representative of the configurations for which the qualification is issued, they can use (and therefore list them) those of the companies for which they work provided that these samples have not been known by the candidate.

In this case, the CAE must notify ITANDTB before carrying out the exams and must be recorded in the examination reports.

<u>Note</u>: The Operative Manual (par. 5.1) and the Organizational Document (par. 5.2) can be a single document.

5.3 TECHNICAL DOCUMENTATION

CAE shall have an adequate collection of codes, standards, specifications, procedures necessary for carrying out both training and qualification. Depending on the specific needs/contractual requirements of each individual Company, CAE may collaborate with the companies themselves, giving evidence in the training and examination records.

5.4 TRAINING PROCEDURES

Training plan for each candidate shall be available and approved by the applicable Responsible Level 3 appointed by the employer.

The training procedures shall comply with the requirements of EN4179 / NAS410 and contain details on:

- a) organization/management of training courses,
- b) bibliographic reference to books, manuals, handbooks, etc.,
- c) code, standards and technical documentation,
- d) how to choose and to manage training samples,
- e) preparation of classes and equipment for classroom training,
- f) preparation of laboratories, instrumentation and equipment for practical training,
- g) how to keep the training course register. The course register shall contain at least the name and signature of the instructor, the names and signatures of the students, detailed topics of the training course referring to the syllabi and time dedicated for each topic, presence or absence of students at classroom training for the entire duration of the course,
- h) the instructor shall be designated by the Responsible Level 3,
- i) how to record the training course register and to archive the recordings,
- j) safety requirements for each method.

5.5 SYLLABUS

CAE shall have its own syllabi that detail the topics for conducting the classroom training, including safety aspects in line with NDT methods in use. In addition, the bibliography used for the development of the teaching material shall be identified.

These syllabi shall contain at least the provisions of EN4179 / NAS410, par. 6.1.1.

The Responsible Level 3 shall ensure that what is used for training meets the Client requirements.





5.6 EXAMINATION PROCEDURES

The examination procedures shall comply with EN4179 / NAS410 requirements and contain the following details:

- a) confidentiality requirements, security of examination materials and questionnaires,
- b) reference to the examination questionnaires and methods of selecting the questions,
- c) approval of examination questions by the Responsible Level 3 or Level 3 Examiner appointed by the Responsible Level 3,
- d) technical documentation,
- e) list of examination samples with evidence of similarity/equivalence to the parts / configurations of the Company for which the NDT personnel is being examined
- f) list of the instrumentation and equipment for the practical hands-on examination with evidence of similarity/equivalence to the parts / configurations of the Company for which the NDT personnel is being examined,
- g) how to conduct and evaluate examinations,
- h) methods of recording (registration report) examinations results and archiving them,
- i) Practical Examination Report shall highlight that all discontinuities have been detected and adequately recorded (position, type and size of the discontinuity).

As a prerequisite, the examination procedure shall also detail how CAE verifies the experience of the candidates in accordance with the requirements of EN4179 / NAS410, par. 6.3. Evidence of practical training shall contain at least:

- 1. day the activity was performed,
- 2. recording of hours of practical training,
- 3. component on which the activity was performed,
- 4. signature of Level 2 or Level 3 who directly supervised the activity.

5.7 QUESTIONNAIRES

CAE shall have an adequate collection of questions for general and specific aerospace applications, specifically and exclusively reserved for written qualification exams. The collection of these questions shall be kept in archives designed to guarantee confidentiality and security.

The questionnaires for the specific exam (open book) shall refer to the process specifications as required by the Employer / Client.

"Wider scope" specific and practical examinations are not allowed for Level 1 and 2 candidates.

During the specific exam, specifications, standards, tables, formula and anything else suitable for its correct execution shall be made available to the candidate as necessary.

The difficulty of the general (closed book) and specific (open book) questionnaires shall be adequate to the level of qualification required.

The Database of questions shall have a minimum of 80 questions for General exam, while 60 for the specific exam. The minimum number of questions, both for the general and for the specific, is intended for each single method.

Questionnaires shall be available in Italian, except when required contractually by Client in a different language.

Questions shall at least meet the requirements of EN4179 / NAS410 and those indicated in Annex D.

The number of questions for general and specific exam shall at least meet the requirements of the EN4179 / NAS410 par. 7.1.2 and 7.1.3.

6. FACILITY REQUIREMENTS

CAE classrooms dedicated to theoretical training and exams shall be separated from other rooms not used for this purpose and shall be adequately maintained at a level of light, noise, temperature and humidity such that people in training or in examination do not suffer distractions or discomfort.





The dimensions of the rooms shall be adequate in such a way that:

- the maximum number of candidates participating in each written exam session must be such that a minimum distance of at least 1.5m is guaranteed between the candidates to be supervised by a sufficient number of invigilators/examiners to carry out the exam correctly.
- the maximum number of candidates participating in each practical exam session must be such that a minimum distance of at least 1.5m between each exam station is guaranteed.

Each class shall have sufficient teaching equipment to allow trainees to easily read texts, drawings, diagrams and figures from any position in the class. The teaching aids shall include audio-video systems such as PC's, video projectors, microfilm readers, overhead projectors, etc., components and / or materials conducive to learning the course topics.

A technical library, updated to recent technological developments, shall be available on the NDT methods for which CAE asks for approval or is already approved and shall contain all the bibliographic training and examination material.

Archives shall be available to ensure the confidentiality, security and integrity of both questionnaires and documentation related to training, examinations and test samples, with attached characterization sheets.

When both training and/or practical exam is carried out at Company premises, it must be properly registered.

7. INSTRUMENT AND EQUIPMENT

CAE shall have all the necessary instrument and equipment in relation to the NDT methods for which CAE asks for approval or renewal. These equipments shall be at the state of the art technological and appropriate to the topic of the training course and the required qualification exams.

Each equipment, in CAE or at Client premises, shall be:

- a) accompanied by documentation showing its functional characteristics and instructions for use,
- b) calibrated in accordance with applicable procedures and must be identifiable so that the calibration due date can be traced.

Note: In case of self-employed or CAE who do not have their own equipment suitable for inspecting the part configurations for which the qualification is issued, they can use (and therefore record in the Exam Report) those of the Companies for which they work upon communication to ITANDTB before the exam session.

8. TRAINING AND EXAMINATION SAMPLES

For training purposes, CAE shall have aircraft parts, engines and / or components, necessary for the application of the NDT methods and which are similar/equivalent with the parts / configurations of the Employer / Client.

Training samples cannot be used for practical qualification exams. In addition, a sufficient number of representative samples containing natural and/or artificial discontinuities shall be available to cover the entire test field.

CAE shall have an adequate number of identified test samples, specifically and exclusively reserved for examinations, complete with maps and discontinuities.

The difficulty of test samples shall be appropriate to the Qualification Level for which the candidate is being trained / qualified.

TODTE



In the case of self-employed or CAE who are not in possession of their own suitable test samples representative of the configurations for which the qualification is issued, they can use (and therefore record in Exam report) those of the Companies for which they work upon communication to ITANDTB before the exam session.

Test samples shall have a characterization sheet approved by Responsible Level 3 or Level 3 Examiner appointed by the Responsible Level 3, detailing the type of discontinuity, material, configuration and inspection technique. Test samples shall be kept under conditions of confidentiality, security and integrity.

9. METHOD FOR APPROVAL (First request)

Before submitting to ITANDTB the request for approval, each "CAE" candidate organization shall carry out a self-audit using the checklist attached to this document (Annex A).

The approval process will take place according to the following steps:

- 1- Receipt of a specific application: Mod: "ITANDTB-M-001", completed self-audit check list, Operative Manual and Organizational Document.
- 2- Check by ITANDTB of documents completeness and adequacy.
- 3- Agreement on the date of the official audit.
- 4- ITANDTB performs the audit of the "CAE" candidate with respect to the requirements of this document using the check list and the audit report form attached to this document.
- 5- The Auditor Team Leader sends to ITANDTB the audit report fully completed, any found non-conformance and potential recommendations.
- 6- ITANDTB provide official feedback to the "CAE" candidate on the outcome of the audit within 15 days.

In the event of an audit report without any non-conformance, ITANDTB issue approval with the relative ITANDTB Certificate.

To be valid, the ITANDTB certificate of approval shall include:

- ITANDTB logo
- Number of approval Certificate
- Company Name
- Office / Location / Address
- NDT methods
- Date of issue
- Expiration
- Name / surname and signature of the ITANDTB Technical Head
- Name / surname and signature of the ITANDTB Chairman
- UNAVIA logo.

In the event of non-conformities equal to or less than no.3 Major (whatever the number of Minors), ITANDTB shall inform "CAE" candidate that, within 15 calendar days from the communication, shall address the Non-Conformities according to the following process:

- A. Analysis of the root cause of each Non-Conformity
- B. Immediate corrective actions
- C. Reason why the Non-Conformity was not detected in the provided self-audit
- D. Actions to prevent the recurrence of similar cases.





ITANDTB shall answer within 15 days if the previous process was exhaustive by issuing the relative approval Certificate.

If it is not exhaustive, ITANDTB repeats the process above with same time and methods.

This process will be allowed for a maximum of 3 times after which the CAE candidate's application will be rejected.

In case of Non-Conformity equal to or greater than no.4 Major, the application of the CAE candidate is to be considered rejected as is and a new application shall be resubmitted no earlier than 6 months, starting the process from the first step.

10. VALIDITY

10.1 Period

The period of validity of CAE approval is three years, provided that there are no:

- a) changes in organizational structures, equipment, relevant personnel or conditions not agreed with ITANDTB in any case such that, at the sole discretion of ITANDTB, they may invalidate the compliance of the Center. CAE is required to communicate such changes within one month and in any case before the next training and exam session; failure to communicate may constitute reason for temporary suspension or, in the most serious cases, revocation,
- b) decay of CAE performance that does not meet more ITANDTB requirements,
- c) inadequate ethical behavior.

10.2 Renewal of approval

At the end of the validity period, CAE renewal is issued after a verification audit. The renewal application shall be sent to ITANDTB no later than three months before the expiration date. The renewal audit will take place as indicated in par. 9 (Method of approval).

10.3 Variation of validity for NDT methods

In the event that CAE intends to extend the number of NDT methods for which it is approved, CAE shall submit an appropriate request to ITANDTB according to the requirements of this document and the ITANDTB audit is limited to the NDT method for which the extension was requested. Upon successful audit, ITANDTB approval certificate will be updated with the date of the last audit. The expiration of the CAE approval remains unchanged as the original certificate.

10.4 Revocation

If CAE fails to meet the requirements indicated in this document or omits the obligations hereafter included (10.6) or if the audit shows serious non-conformities, CAE approval shall be revoked by ITANDTB when necessary even before the expiration date.

10.5 List of Training and Exam Centers

The list of ITANDTB approved CAE's is available on the UNAVIA website, area dedicated to ITANDTB.

10.6 CAE Obligations

10.6.1 External Agencies

Before each exam session, approved External Agencies shall communicate to ITANDTB, at least 20 days in advance, the date of the exam. Failure to notify involves non-recognition of the qualification carried out and CAE suspension for a period established by ITANDTB.

ITANDTB reserves the right to attend/witness the qualification exams at its discretion.

10.6.2 External and Internal Agencies

At the end of the exams and no later than 30 days after, the Responsible Level 3 or his delegate shall send to ITANDTB for each candidate the Qualification Report (Annex C page 25), which, once verified, ITANDTB validates issuing a specific sequential



identification and later the Level 1 or 2 qualification will be confirmed by ITANDTB issuing the relevant ITANDTB Certificate of Qualification, reporting:

- ITANDTB logo
- Certificate numbering
- Name and surname
- Level
- NDT method (abbreviation)
- ITANDTB CAE (company name and CAE certificate numbering)
- Reference to the number of the ITANDTB Qualification Report (assigned by ITANDTB)
- Date of issue
- Expiration
- Name / surname and signature of the ITANDTB Technical Head
- Name / surname and signature of the ITANDTB Chairman
- UNAVIA logo.

(An NDT certificate numbering is assigned exclusive to each NDT operator).

CAE shall keep stored in security and confidentiality all training and qualification documentation of NDT qualified personnel for the entire period of validity of the qualification. The records must contain:

- Name of qualified personnel,
- The last written and practical exam,
- Methods, techniques and level of qualification,
- Reference to all technical documentation/specification of the specific exam,
- Scoring of the exam,
- Expiration date of the qualification,
- Training records,
- Experience records,
- Results of the latest vision acuity and color perception tests,
- Candidate's employer.

11. AUDITING ACTIVITIES

11.1 Auditor

In addition to the provisions of the EN4179 / NAS410 standards at Par 5.1.6 - Auditor, the Auditors shall be ITANDTB Level 3 and have been qualified since at least five years in one of the NDT methods.

11.2 Auditing Team

The Team shall consist of at least two Level 3, one of them is the Team Leader, to be selected among the Level 3 belonging to ITANDTB founding companies or to the Ministry of Defense. The Auditing Team shall cover all NDT methods for which CAE is audited.

The presence of the Secretariat is expected.

11.3 Guidelines for Auditors

CAE shall make available all documentation subject to audit including training and qualification records.

During the audit, the auditor has to answer with a "YES" or "NO" to declare compliance or not with each requirement.





For all negative answers (NO), the auditor shall clearly indicate the non-conformity found in the Audit Report. If the Non-Conformity is such that it may have an impact on the parts inspected, it must be indicated as Major and promptly notified to ITANDTB. In the event that a serious deficiency occurs in the exercise of CAE, the non-compliance will be classified as a Major.

All negative answers (NO) require a non-compliance report (NCR).

The non-compliance management process requires that the following are specifically indicated:

- The requirement not met
- The verified lack
- The objective evidence of non-conformance

If containment actions and immediate corrections are to be implemented, these will be explicitly indicated.

Before to define the corrective actions to be activated to resolve the "finding", it is necessary to identify the root cause, through specific assessments (root cause analysis) and to implement the necessary "follow up" which has the purpose of verifying the closure of the agreed corrective actions and their effectiveness.

Non-Applicable answers (NA) do not require explanation. There is only one plausible reason for an NA, which is that a particular operation or activity is not being used. There are no NA due to a lack of found requirement.

If an operation or activity is in use, all questions relating to it are applicable.

If verification of results requires evidence of appropriate documentation, it must be indicated in the checklist.



Drganization / Location:	Audit no.:	
	Date:	
Contact		
Address		
Phone		
 E-mail		
Auditor Team Leader		
First Approval - Renewal - Audit (specify)		
		
Methods		

Rev. 04 December 2020





	REQUIREMENTS	To insert YES / NO / NA	Reference: ITANDTB 05, EN4179 / NAS410 and any notes
	ORGANIZATION		
1.	The organization's quality management system is certified according to ISO 9001 / AS9100 / ISO 17025 / ISO9110, or, alternatively for Part 145 Companies, they are in possession of the Maintenance Company Approval Certificate issued by National Aviation Authority?	Yes No NA	The currently valid Certificate requested covers the name of the company, the site address, the activity at the time of the audit
2.	Has the organization formally designated a Responsible Level 3? NAME:	Yes No NA	ITANDTB 05 Par. 5
3.	Is the Responsible Level 3 ITANDTB qualified?	Yes No NA	ITANDTB 05 Par. 5
4.	The organization has all the necessary instrument and equipment in relation to the NDT methods and applications for which it requests or for which it has been approved by ITANDTB	Yes No NA	ITANDTB 05 Par. 7
	NOTE:		
5.	Does the organization provide training and / or exams also at the Client's facilities? NOTE:	Yes No NA	ITANDTB 05 Par. 5 and 7
6.	Have sufficient examiners and instructors been appointed by the Responsible Level 3 in writing to cover all NDT methods for which CAE is approved?	Yes No NA	ITANDTB 05 Par. 5
7.	Are there controls in place to ensure that NDT qualification exams (written/practical) are made available only during exam administration? NOTE	Yes No NA	EN4179 / NAS410
8.	Are scoring minimum 70% for each single part of exam with a total average of minimum 80% for each method?	Yes No NA	ITANDTB Par. 5.1 (#18) EN4179 / NAS410 Par. 7.2.2
9.	Is the exam scoring correct?	Yes No NA	EN4179 / NAS410





	REQUIREMENTS	To insert YES / NO / NA	Reference: ITANDTB 05, EN4179 / NAS410 and any notes
	OPERATING MANUAL (WRITTEN PRACTIC	CE)	
10.	Does the organization have the Operative Manual referring to EN4179 / NAS410? NOTE	Yes No NA	ITANDTB 05 Par. 5
11.	Does the Operative Manual list the NDT Methods / Techniques?	Yes No NA	Annex B Must be completed and attached. This is the essential element for the audit. Page 20
12.	Does the Operative Manual list the Qualification Levels, the corresponding duties, responsibilities and hours of experience?	Yes No NA	ITANDTB 05 Par. 5.1 (#8, #9)
13.	Is the Operative Manual approved by the Responsible Level 3?	Yes No NA	ITANDTB 05 Par. 5
14.	Does the Operative Manual indicate the correct training and examination requirements for each candidate? NOTE	Yes No NA	ITANDTB 05 Par. 5
15.	Does the Operative Manual indicate the list of codes and procedures for carrying out training and examinations? NOTE	Yes No NA	ITANDTB 05 Par. 5
16.	Does the Operative Manual indicate the procedures for conducting classroom and practical training? NOTE	Yes No NA	ITANDTB 05 Par. 5
17.	Does the Operative Manual require evaluation of employers' written practice? NOTE	Yes No NA	ITANDTB 05 Par. 5





	REQUIREMENTS	To insert YES / NO / NA	Reference: ITANDTB 05, EN4179 / NAS410 and any notes
18.	Does the Operative Manual require evaluation of employers' process specifications and / or procedures, including client specifications and / or procedures, where applicable? NOTE	Yes No NA	ITANDTB 05 Par. 5
19.	Does the Operative Manual require assessment of the employer's product technology requirements? NOTE	Yes No NA	ITANDTB 05 Par. 5
20.	The Operative Manual requires evaluation of appropriate training samples and test samples? NOTE	Yes No NA	ITANDTB 05 Par. 5
21.	Does the Operative Manual identify the expiration, suspension and revocation of the NDT personnel? NOTE	Yes No NA	ITANDTB 05 Par. 5.1.14
22.	Does the Operative Manual describe the requirements for the qualification and requalification of NDT personnel? NOTE	Yes No NA	ITANDTB 05 Par. 5.1 (#11)
23.	Does the Operative Manual identify the procedures for renewal Levels 3 certification? NOTE	Yes No NA	ITANDTB 05 Par. 5.1 (#13)
24.	Is there evidence that all qualification exams are not performed by himself or a subordinate?	Yes No NA	EN4179 / NAS410
25.	(Sample checks of contracts with customers at the discretion of the Auditors) Are operating procedures, process specifications, codes, standards, product technology for the NDT method under examination clearly specified and recorded in the stipulated contracts in accordance with the requirements and the product of the Employer / Client?	Yes No NA	ITANDTB 05 Par. 5.1





	REQUIREMENTS	To insert YES / NO / NA	Reference: ITANDTB 05, EN4179 / NAS410 and any notes
26.	How are the exam results documented (general, specific and practical)? NOTE	Yes No NA	ITANDTB 05 par. 5.6.g., 5.6.h
	TRAINING		
27.	Have the training courses been conducted consistently with the contents of the syllabi/outlines and adequately recorded? NOTE	Yes No NA	ITANDTB 05 Par. 5.4.g
28.	The contents of the syllabi/outlines are in line with the provisions of EN4179 / NAS410 par. 6.1.1?	Yes No NA	ITANDTB 05 Par. 5.5
29.	(*) Has the Responsible Level 3 verified that the training material meets the requirements of the Employer / Client? (*) applicable only to External Agencies	Yes No NA	ITANDTB 05 Par.
30.	Is registration kept if training and/or practical examination activities are carried out at the Company premises for which CAE provide the tasks? NOTE	Yes No NA	ITANDTB 05 Par. 5 and 6
31.	Are the training/examination facilities appropriate for the number of students and conducive to learning? NOTE	Yes No NA	ITANDTB 05 Par. 6
32.	Do the classrooms have appropriate teaching aids? NOTE	Yes No NA	ITANDTB 05 Par. 6
33.	Has the training plan been approved by the Responsible Level 3?	Yes No NA	ITANDTB 05 Par. 5





	REQUIREMENTS	To insert YES / NO / NA	Reference: ITANDTB 05, EN4179 / NAS410 and any notes
34.	Does the training plan include a list of references from which the training material is derived? NOTE	Yes No NA	ITANDTB 05 Par. 5
35.	Are the examiners ITANDTB Level 3?	Yes No NA	ITANDTB 05 Par. 5
36.	Are instruments, equipments and systems used for practical training sufficiently adequate for the technique that the candidate uses at the Employer / Client?	Yes No NA	ITANDTB 05 Par. 7
37.	Does the material used for theoretical training include, for each method, the safety topics (Safety)?	Yes No NA	ITANDTB 05 Par. 5.4.j
38.	Is all documentation and records available for the training and examination for the qualification and certification of NDT personnel? NOTE	Yes No NA	ITANDTB 05 Par. 10.6.2 EN4179 / NAS410 Par. 8.2
	GENERAL EXAMINATION	L	
39.	Does the general exam consist of at least 40 multiple choice questions?	Yes No NA	ITANDTB 05 Par. 5.7 EN4179 / NAS410
40.	Does the General Exam for Level 1 Limited consist of at least 10 multiple choice questions?	Yes No NA	Par. 7.1.2 ITANDTB 05 Par. 5.7
			EN4179 / NAS410 Par. 7.1.2





	REQUIREMENTS	To insert YES / NO / NA	Reference: ITANDTB 05, EN4179 / NAS410 and any notes
41.	Does the general examination contain the basic principles of the NDT method under examination? NOTE	Yes No NA	EN4179 / NAS410
42.	Does the general exam contain only multi-choice questions?	Yes No NA	EN4179 / NAS410
43.	Are the questions for the general exam of adequate complexity for the required Qualification Level? NOTE	Yes No NA	ITANDTB 05 par. 5.7
44.	Are general exam questions closed book?	Yes No NA	ITANDTB 05 par. 5.7
	SPECIFIC EXAMINATION		
45.	Are the specific exam questions related to the Client's process specifications? NOTE	Yes No NA	ITANDTB 05 par. 5.2.b.3
46.	Does the specific exam consist of at least 30 questions written according to the requirements reported in Annex D.1? NOTE	Yes No NA	ITANDTB 05 Par. 5.7 EN4179 / NAS410 Par. 7.1.3
47.	Does the specific exam for level 1 Limited consist of at least 8 multiple choice questions?	Yes No NA	ITANDTB 05 Par. 5.7 EN4179 / NAS410 Par. 7.1.3
48.	Are the questions for the specific exam of adequate complexity for the required Qualification Level? NOTE	Yes No NA	ITANDTB 05 par. 5.7
49.	Are the specific questions open book?	Yes No NA	ITANDTB 05 par. 5.7





	REQUIREMENTS	To insert YES / NO / NA	Reference: ITANDTB 05, EN4179 / NAS410 and any notes
50.	Does the specific exam aim to determine the candidate's understanding of operating procedures, codes, standards, product technology, examination techniques, equipment and specifications for the NDT method under consideration in accordance with the requirements and product of the Employer / Client?	Yes No NA	ITANDTB 05 par. 5.7
51.	Do specific questions require understanding the reference material provided and not simply finding the location of the answer?	Yes No NA	ITANDTB 05 Annex D.1, Par. D.1.2.e
52.	For the administration of the specific exam, have the specifications, standards, tables, formulas and anything else necessary for the correct execution of the same been made available to the candidate? Has the reference material been approved by the Responsible Level 3 or by examiner?	Yes No NA	ITANDTB 05 Par. 5.7
	PRACTICAL EXAM		
53.	Are the instruments, equipments and facilities used for the examination fit for purpose and verified for calibration? NOTE	Yes No NA	ITANDTB 05 Par. 7
54.	Are the training and test samples in sufficient numbers and do they contain artificial or natural discontinuities adequate for the purpose of the inspections that the candidate has to encounter at the Employer / Client? NOTE	Yes No NA	ITANDTB 05 par. 5.2.b.13
55.	Are procedures available for the confidential and secure storage of training samples, test samples, exam records and, in general, all documentation relating to exam administration? NOTE	Yes No NA	ITANDTB 05 Par. 5.7,6
56.	Are the test samples of adequate complexity for the required qualification level?	Yes No NA	ITANDTB 05 Par. 8
57.	Does the practical exam involve the inspection of at least two test samples of different configuration?	Yes No NA	EN4179 / NAS410
58.	Does the practical examination involve the inspection of at least one test sample for each technique?	Yes No NA	EN4179 / NAS410





	REQUIREMENTS	To insert YES / NO / NA	Reference: ITANDTB 05, EN4179 / NAS410 and any notes				
59.	Does the Limited Level 1 Practical Exam involve the inspection of at least one test sample for each technique?	Yes No NA	EN4179 / NAS410				
60.	Are the test samples used in the practical examination representative of the Employer / Client product? NOTE	Yes No NA	ITANDTB 05 par. 8 EN4179 / NAS410 Par. 7.1.4				
61.	Do the test samples contain known natural or artificial discontinuities?	Yes No NA	ITANDTB 05 par. 8				
62.	Has a practical exam checklist been developed for each method?	Yes No NA	ITANDTB 05 par. 5.2.b.4				
63.	Are test samples accompanied by Responsible Level 3 or Level 3 Examiner approved characterization sheet?	Yes No NA	ITANDTB 05 par. 8				
64.	Is there evidence that the location and severity of the discontinuities are not apparent to the candidate prior to the inspection?	Yes No NA	EN4179 / NAS410				
65.	Does the Practical Examination Report show that all discontinuities have been detected and adequately recorded? NOTE	Yes No NA	ITANDTB 05 Par. 5.6.i				
66.	Are the test samples kept in conditions of confidentiality, security and integrity? Note: Indicate the storage address of the exam samples	Yes No NA	ITANDTB 05 Par. 8				
	REPEAT EXAMS						
67.	In case of repetition of a previously failed exam, does the general and / or specific exam questionnaire contain at least 25% of new questions?	Yes No NA	EN4179 / NAS410				
68.	In the case of repeating a previously failed practical exam, is there evidence that different test samples were used?	Yes No NA	EN4179 / NAS410				





	REQUIREMENTS	To insert YES / NO / NA	Reference: ITANDTB 05, EN4179 / NAS410 and any notes
69.	In case a candidate has failed the General and / or Specific and / or Practical exam has he/she received additional training on the topics for which he/she was found deficient? NOTE	Yes No NA	Evidence of additional training must be documented.
70.	In the event that a candidate has failed the General and / or Specific and / or Practical exam is there evidence that the Responsible Level 3 or the Level 3 Examiner has documented the candidate's areas of deficiency?	Yes No NA	EN4179 / NAS410
71.	Does the Qualification Report comply with Annex C?	Yes No NA	ITANDTB 05 Par. 5





ITANDTB 05	ANNEX B	date			
CAE - SCOPE OF APPROVAL					
ORGANIZATION:					
NOTES: Date					
1. It must be completed by the approved	CAEs and / or to be approved				
2. It must be used for subsequent verific					
NDT methods	Techniques	Technique details	Metals (Y / N)	Composites (Y / N)	
Penetrant Testing (PT)	Type 1 Water Washable or solvent removable	uctans	(1710)	(1719	
	Type 1 Post Emulsifiable				
	Others				
Magnetic Particle Testing (MT)	Wet Horizontal Bench systems				
	Portable Systems				
	Others				
Ultrasonic Testing (UT)	Pulse Echo				
	Through Transmission				
	Immersion				
	Phased Array				
	Others				
	Unicis				
Eddy Current (ET)					
	ET Impedance Plane				
	Eddy Current Array				
	Others				
Radiography	Film Radiography				
	Non-Film Radiography				
	Others				
	Active and Passive				
Thermography (IRT)	Thermography. Standalone camera applications				
	Lock-in Thermography				
	Pulse Thermography				
	Others				
	Veeuum Charactica				
Shearography Testing (ST)	Vacuum Stressing Thermal Stressing Pressure Stressing Acoustic Vibration Stressing Mechanical Vibration Testing				
	Others				

Rev. 04 December 2020



CAE name + Logo



ITANDTB QUALIFICATION REPORT

	ITA-RQ-	
Mr /Mrs		
of the Company on/ passed	the exam□ qualification □ requali	fication in accordance with
	For Level 1 2	
	Method (I.e.: PT – Penetrant Testing)	
Technique/s:		
NDT Process Specifications:		
Specific Acceptance criteria:		
reporting the following evaluation	:	I
General:%	no. Questions	date
Specific:%	no. Questions	date
Practical:%		date
Average:%		
Development of work instruction:	(Yes No)	
Date		
Level 3 examiner:		
ITANDTB	05 Annex C - Qualification Report for Lev. 1	and 2

Rev. 04 December 2020

Page 25 of 30



ITANDTB 05 Rev. 04 December 2020

ANNEX D: Requirements for questionnaire preparation

D.1. General

Exam questions must meet the requirements listed below:

- 1. General exam questions must be multiple choice with at least 4 alternative answers
- 2. Specific exam questions can be:
 - a. With multiple choice answer with at least 4 alternative answers
 - b. With True / False, Acceptable / Unacceptable answers (no more than 20% of questions)
 - c. With a complete answer (no more than 20% of the questions)
 - d. The combination 2.a + 2.b + 2.c is allowed.
 - e. The questions must be articulated in such a way the candidate must provide a reason in formulating the answer. Questions that involve the simple identification of the answer in the aid material provided to the candidate for carrying out the specific exam are not allowed.
- 3. Questions must not contain double negatives.
- 4. Questions shall always refer to the training syllabi or process specification for the specific part.
- 5. 2.5 minutes should be enough to answer a question.

D.2. Format of the questionnaires

- 1. Figures and Tables must be attached at the end of the questionnaire
- 2. The Candidate must indicate the correct answer on the answer grid where, in correspondence with the identification number of the question, he/she must cross the identification letter of the answer considered correct.
- 3. If the candidate intends to modify an answer, he/she must use the appropriate white box reporting in it the letter corresponding to the answer considered correct. A signature is required at the modified response.
- 3. The questions must be indicated with a unique progressive number for all exam questionnaire.

Attachment E AUDIT REPORT	Doc. N ° ITANDTB CAE		
Audit Date:	Page 1 of 4		



ITANDTB 05 Rev. 04 December 2020



CAE:							
Type of Aud	it: QUALIFIC	ATION 🗆 I		SURVEILL			
			Ν	DT			
PT D	MT □	ET D	UT □	RT Film □	RT Non Film □	IRT □	ST □
Signatures o	of approval o	f the minu	ıtes	1			
Team	Leader		Auditor		Auditor	Audite	d CAE
Name and surname:		Name an	d surname:	Name a	and surname:	Name and	surname:
Note: The signed original is filed at the ITANDTB office and a copy is sent to the CAE.							





1. Participants

Verification Group	
Name surname	Membership body
Team Leader:	
2nd Auditor:	
3rd Auditor (if any):	
Verified Group:	
Name surname	
Responsible Level 3	

2. References

- 2.1. *Standards* EN4179 / NAS410
- 2.2. **ITANDTB procedures** ITANDTB 05
- 2.3. Specifications

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2.3.1.Check List

Attachment A: Check-list for CAE approval assessment

3. Summary of the Audit

The visit involved all aspects relating to

QUALIFICATION

RENEWAL
SURVEILLANCE

Audit results:

□ NO Non-Conformities □ YES Non-Conformity Found

Summary of the NC found

3.1. Non-compliance

Example: X Major NCs (relating to), and Y minor NCs (relating to work documentation,) have been identified. Details are given in the forms in section 7 of this document. The verified unit must respond within ten (10) days.





4. NCR

NON-CONFO	RMITY REPORT (NCR)	N	° NCR:			
SECTION 1-DETAILS ON THE NON-COMPLIANCE (S)						
CAE						
Paragraph Standard		_	Non-conformity			
EN4179 / NAS410	Paragraph Procedure ITANDTB ()5	classification			
			Major or Minor			
1) Description Non-conf	ormity					
Objective evidence:						
Insert the normative reference	ces related to the discrepancy found	1				
			•			
2) Description Non-confe	ormity					
Objective evidence:	ces related to the discrepancy found	4				
	is to related to the discrepancy rearies	•				
Auditor	CAE representative:					
	Signature for acceptance					
Name:	Name: Si	gnature				
Signature						
		Deadling	e for reply:			
	- SheetBeetSee of the east one of the sectors	2 suumit				
	The audited CAE will complete this NCR with the identification of the root cause of the non-compliance, the definition of the containment action (s), the correction (s), the corrective action (s) (e), of the preventive action (s) and the preventive action (s) are preventive action (s) and the preventive action (s) are preventive action (s) and the preventive action (s) are preventive action (s) and the preventive action (s) are preven					
,		date:				





SECTION 2 - PLANNED ACTIONS	
Corrective Action (s) Detailed description of how the NC is to be healed	Expected date of completion of corrective action:
	Effective date of completion of corrective action:
CAE representative:	Date:
Cause of non-compliance (NC)	
Detailed description of the causes that determined the NC	
Acceptance of identified Auditor signature corrective actions	Date:

SECTION 3 - AUDITOR VE	RIFICATION AND CLOSUF	RENCR	
Objective evidence of Co	rrective Action (s)	Date:	
Objective evidence Corre	ctive action (s)		
Auditor Name:	Signature	Date:	