
	<p>Non-Destructive Testing Society (Singapore)/National Aerospace NDT Board 9, Jurong Town Hall Road, #02-21, Singapore – 609431</p>	
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## **Control of Qualification Examinations and Certification**

Effective Date: 23 Oct 2023

### **1 Purpose**

This procedure describes:

- a) the method by which NDTSS/NANDTB controls the qualification examinations administered by approved agencies; and
- b) the contents of certificates issued for training and examinations complying with the requirements of EN4179/NAS 410, CAAS AC 145-12, ANDTBF 08 and ANDTBF 10.

### **2 Introduction**

NDTSS/NANDTB undertakes the responsibility for the general control of the qualification of aerospace NDT personnel in Singapore.



This procedure specifies the roles of NDTSS/NANDTB, NDTSS, approved agencies, employers of NDT personnel, Responsible Level 3 in the control of the qualification examinations and certification of qualification.

### **3 Definitions**

**Authorisation:** A written statement by the employer, based upon the scope of certification, authorising the individual to carry out defined tasks.

**Outside agency:** An independent company or organisation outside the employer who provides NDT services to implement the requirements of the EN 4179, such as training and / or examination of NDT personnel.

**Internal agency:** An employer conducting NDT training and / or examination of its NDT personnel for the company addresses as detailed in its internal agency approval certificate.

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Examination centre: A centre accepted or approved by NDTSS/NANDTB where qualification examinations are administered.

Instructor: An individual approved by the Responsible Level 3 or examiner to provide training for NDT personnel.

Re-examination: Repeat examination that is taken again after a failed examination and an extra training.

Examiner: A Level 3 person approved by NDTSS/NANDTB and appointed by an outside or internal agency. An examiner can prepare, administer, and grade NDT specific or practical examination in the method in which he / she is certified. NDTSS/NANDTB shall maintain a list of approved examiners.

Approved agency: An outside or internal agency (OA/IA) that has been audited and approved by NDTSS/NANDTB to provide examination services for Specific and Practical examinations and training conforming to the requirements of written practices and specifications.


Techniques: A category within a method used by the employer and shall be defined in the written practice.

Test Sample: A part or image containing one or more known and documented natural or artificial discontinuities, flaws or conditions used in the practical examination to demonstrate the candidate's proficiency in an NDT method. Test samples can refer to actual hardware, fabricated test parts, or, when applicable, images of actual hardware such as radiographs.

#### 4 **Responsibility**

##### **NDTSS/NANDTB:**

- Approving outside and internal agencies (According to NDTSS/NANDTB/PM/008),
- Reviewing qualifications and experience and approving examiners,
- Maintaining the records of its approved agencies, approved examiners and list of NDT Level 3s that it has qualified, and
- Appointing certified EN 4179 NDT Level 3 to review and endorse certification and re-certification of NDT Level 3s according to NDTSS/NANDTB/L3/01.
- Active participation in the NDT Board Forum

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### **NDTSS:**

- Providing secretariat support including scheduling of OA/IA Audits for NANDTB activities
- Maintaining the records of its approved agencies, approved examiners and list of NDT Level 3s that it has qualified through recertification
- Manage review and endorse certification and re-certification of NDT Level 3s according to NDTSS/NANDTB/L3/01 from the approved list of examiners.
- Manage complaints & Appeals

### **Employer or its Responsible Level 3:**

- Developing and maintaining its Written Practice,
- Providing the appropriate information (specifications, codes, standards, procedures and materials) necessary for the OA or IA to develop the training and qualification examinations,
- Designate qualified Examiner, Instructor and outside agencies,
- Verifying that the training and / or examinations meet the employer's requirements,
- Validating the qualification certificate issued by the OA or IA,
- Administering supplemental examination representative of the employer's processes that the OA specific and practical examinations have not covered,
- Authorising its NDT personnel, and
- Maintaining the training and examination records of its NDT staff.

### **Outside and internal agencies:**

- Nominating their examiners for NDTSS/NANDTB approval,
- Nominating instructor for the training and qualification assignment,
- Obtaining the necessary information from the employer and ensuring that the information it received are used solely for training and examination purposes,
- Developing the training programme for the candidate in accordance with the employer's requirements,
- Administering and grading NDT examinations with questions and marking scheme,
- Developing questions, administering and grading examination for NDT methods,

- Developing questions and checklists for the specific and practical examinations for a candidate in accordance with the employer’s requirements,
- Grading and scoring the examinations,
- Issuing the qualification and training certificates to the NDT candidate’s employer,
- Ensuring that the training and qualification certificates include all the information specified in this procedure,
- Preparing the qualification certificates and submitting with summary and transcripts to NDTSS/NANDTB for Level 3 NDT candidate for endorsement,
- Reviewing Level 3 recertification application documents, preparing qualification certificate, and submitting the documents to NDTSS/NANDTB for endorsement.
- Retaining the examination scripts.

**5 Nondestructive testing methods**

The NDT methods covered in this procedure are:

Eddy Current Testing	ET
Magnetic Particle Testing	MT
Penetrant Testing	PT
Radiography Testing	RT
Ultrasonic Testing	UT
Thermographic Testing	TT

Emerging methods are addressed in NDTSS/NANDTB/PM – 011.

**6 Training and Experience Requirements for Candidates**

**6.1 *General***

The 4 (four) basic levels of certification as defined in EN4179 and NAS410 are Level 1-limited, Level 1, Level 2 and Level 3. Where other variations or subdivisions are implemented, the requirements and responsibilities must be detailed in the employer’s written practice.

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## 6.2 *Training*

Candidates seeking qualification and certification for Level 1-Limited, Level 1, Level 2 or Level 3 shall complete sufficient formal training to be proficient with the principles and practices of the applicable test method and techniques and be capable of carrying out the duties specified in EN4179/NAS410.

Formal training shall be conducted prior to or in conjunction with, on-the-job training.

The minimum training hours specified in EN4179/NAS410 for Level 1-Limited, Level 1 and Level 2 for the specific NDT methods and techniques shall be achieved.

The training outlines shall at least cover those specified in EN4179/NAS410.

Credit from the candidate's previous training and equivalent training may be considered. It shall be determined and documented by the Responsible Level 3 according to EN4179/NAS410.



Candidates shall complete Health and Safety training and be knowledgeable of National Environment Agency (NEA) regulations and laws.

## 6.3 *Experience*

Candidates for certification to Level 1-Limited, Level 1, Level 2 or Level 3 shall have sufficient practical experience to ensure that they are capable of performing the duties of the level for which the certification is sought.

The minimum experience requirements are provided in EN4179/NAS410.

The candidate's Responsible Level 3 shall ensure that the training and experience records are maintained for review by the employer's customers, NDTSS/NANDTB or the regulatory body.

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## **7 Examination Requirements for Candidates:**

Examinations to verify the technical qualifications of candidates shall consist of a general, specific and practical examination for each method in which the candidate is to be certified.

As specified in EN4179/NAS410, specific examinations shall be administered after a minimum of 75 % of the minimum experience requirements have been completed. The minimum experience requirements shall be completed prior to the administration of the practical examination.

It is the responsibility of the examination providers (OA, IA) to maintain the questions or question database current. These shall be available for review by the employer's customers, NDTSS/NANDTB or the regulatory body.

Examinations and test samples shall be made available to the candidates only during administration of the examinations.

Examination providers (OA, IA) must ensure candidate meet the vision examination requirements as specified in EN4179/NAS410 Vision requirement do not apply to instructors or auditors.

### **7.1 *Examination – General***



The general examination for all levels shall be a closed book examination covering the cross section of the applicable method at the appropriate level.

A minimum number of 40 questions shall be administered.

General examinations (PT, MT, ET, UT, RT, TT) for NDT Level 1, 2 & 3 qualifications are administered by OA.

Note:

Note: Candidates who passed ASNT NDT Level 3, NANDTB or ISO 9712 General Examination meets the equivalent requirement of the Level 3 General Examination. A score of 80% shall be allocated for the scoring for the general theory. To use scores from ASNT, ISO9712 or NANDTB the existing certification must be current for all Levels

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## 7.2 *Examinations – Basic*

The Level 3 Basic Examination gives the candidate a general familiarity of other NDT methods as it is their responsibility to acquire knowledge beyond the technical scope of any specific NDT method.

A 'one-time examination shall be administered by approved Outside Agency or Internal Agency. The examination shall comprise general knowledge questions covering at least four NDT methods as required for Level 2 and chosen by the candidate from the list of common methods per EN 4179. These four methods shall include at least one volumetric method (UT or RT).

Each NDT method shall be addressed by a minimum of 15 closed book questions, minimum total number of 60 questions.

The pass mark is 80%. The examination / score is not to be used as part of the composite score.

Passing a Basic Exam for an initial Level 3 can be demonstrated by ASNT or ISO9713 Level 3 or a previous NANTTB Level 3 qualification.

The candidate must pass the Level 3 Basic Examination before proceeding to attempt the method examinations.

## 7.3 *Examinations – Specific*

Specific examinations for NDT Level 1, 2 & 3 qualifications are administered by approved Outside Agency or Internal Agency.

The questions may be prepared by the examiners or selected from the agency's question bank that is maintained by the approved examiner(s).

It shall be an open book examination covering the requirements and the use of the specifications, codes, standards, equipment, operating procedures, product knowledge and test techniques the candidate may use in the performance of his/her duties with the employer.

A minimum of 30 questions corresponding to the required qualification level is administered. The appointed examiner will administer and grade the examination.

On average, 2 minutes is given per question subjected to the mixture of multiple-choice and essay questions.

Reference material, as determined by the examiner, such as specifications, tables, formulas etc shall be provided.

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#### 7.4 *Practical Examinations*

Practical examinations for NDT Level 1, 2 & 3 qualifications are administered by approved Outside Agency or Internal Agency.

The practical examination shall consist of a demonstration of proficiency in performing tasks that are typical of those to be accomplished in the performance of the candidate's duties (activities and qualification level).

If the candidate is required to demonstrate proficiency in the application of the process as well as the interpretation of results, hardware test samples shall be used. The candidate shall not be familiar with the test sample and the location of the discontinuities located therein.

If the candidate is only required to interpret the results and not perform the process of gathering the image, the test samples may be images, such as radiographs or other resultant test data.

A written checklist covering the topics shall be developed and completed by the examiner to assure adequate coverage and to assist in the administration and grading of the examination.

In addition to using the checklist, the examiner shall determine and document how the examination results obtained by the candidate are to be documented (eg part maps, drawings, sketches, written descriptions etc.). All such documentation shall become part of the examination and filed accordingly.



Practical examinations for NDT Level 1, 2 & 3 qualifications are prepared by the appointed examiner who will administer and grade the test.

##### 7.4.1 Level 1-Limited Proficiency Demonstration

The candidate shall demonstrate proficiency by using a work instruction to process at least 1 test sample for each technique and part configuration for which certification is sought. The test samples shall meet the criteria defined above and shall be representative of the products to be encountered by the candidate in the performance of his/her duties with the employer.

If the approval to accept or reject hardware is to be granted by the Responsible Level 3, the candidate shall interpret and document the results of the inspection of the test samples.



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The checklist shall include proficiency in:

- the use and setting of the equipment and its accessories
- strict adherence to written instructions and, if applicable
- interpretation and evaluation of indications and documentation of the results.

#### 7.4.2 Level 1 Proficiency Demonstration

The candidate shall demonstrate proficiency by using a work instruction to process at least 2 test samples of differing configurations for each method, with at least one test sample for each technique for which certification is sought. When only one configuration of hardware is to be inspected upon certification, both test samples may be of the same configuration. The test samples shall meet the criteria defined above and shall be representative of the products to be encountered by the candidate in the performance of his/her duties with the employer.

If the approval to accept or reject hardware is to be granted by the Responsible Level 3, the candidate shall interpret and document the results of the inspection of the test samples.

The checklist shall include proficiency in:

- the use and setting of the equipment and its accessories
- strict adherence to written instructions and, if applicable
- interpretation and evaluation of indications and
- documentation of the results.

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#### 7.4.3 Level 2 Proficiency Demonstration

The candidate shall demonstrate proficiency by inspecting at least 2 test samples of differing configurations for each method, with at least one test sample for each technique for which certification is sought. When only one configuration of hardware is to be inspected upon certification, both test samples may be of the same configuration. The test samples shall meet the criteria defined above and shall be representative of the products to be encountered by the candidate in the performance of his/her duties with the employer.

In addition to the two minimum known and documented test samples with discontinuities, specimens without discontinuities may be included. The candidate shall document the NDT results in accordance with the applicable acceptance criteria.


The checklist shall include proficiency in the use and standardization of equipment and materials, adherence to procedural details, the accuracy and completeness of interpretation and evaluation of Indication.

#### 7.4.4 Level 3 Proficiency Demonstration

The candidate shall demonstrate proficiency by preparing an NDT procedure or work instruction or work data sheet appropriate to the employer's current requirements for the method. The procedure or work instruction shall be developed in conjunction with the general and/or specific examination(s) required for certification or recertification, as applicable.

The results of the practical examination shall be documented, and a checklist shall be used to address the technical accuracy, technical content, and clarity of the procedures or written instructions prepared by the candidate.

When the candidate's duties will include processing and/or acceptance or rejection of products, proficiency in performing such task shall be demonstrated by a hands-on practical examination equivalent to Level 2 in accordance with 7.4.3.

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## 8 Administration of Examinations

The General Examinations are prepared by and administered by an OA.

The Outside or Internal Agency shall assign an approved Examiner who is responsible to prepare, administer and grade all examinations.

### 8.1 Qualification Criteria

A candidate for certification must achieve a minimum score of 70% on each individual examination.

In addition, the Level 1 or 2 candidate must detect all discontinuities, flaws or conditions specified by the Examiner during the practical examination and achieve a minimum score of 70%.

The candidate must have an average score of no less than 80% in order to be eligible for certification. If only specific and practical examinations are administered for recertification, only those scores shall be factored into the average score.

### 8.2 Re-examination

A candidate must receive additional training before attempting re-examination of the failed examination.

Re-examination must be made on the part which the result was under 70%. Re-examination may be made on the part which the result was under 80%, in the situation where the three examinations results are above 70%.

The examination shall not use the same written tests or test samples that were used in the failed examination. Re-examination test must contain a minimum of 25% new questions.

If an overall result of at least 80% has not been achieved within a year of the end of the course or after 2 repetitions of the examination, the whole training and all the examinations must be repeated.

### 8.3 Certification on a new technique

The candidate shall attempt a practical examination addressing the new technique in accordance with 7.4 above.

He/she shall comply with the qualification criteria according to 8.1 above with the scores he/she obtained in the last general and specific examinations. If he/she succeeds, the certification will be extended to the technique for the remaining validity period of the certification.

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## 9 Certification Process

9.1 For Level 1-Limited, 1, 2 and 3 certification, upon the candidate's successful completion of the qualification examinations:

- a) OA/IA shall issue the results transcript to the candidate (Appendix D).
- b) The OA / IA will summarise the scores for each of the examination (specific and practical) with the results of the general examination in a form (Appendix D).
- c) For Levels 1-Limited, 1 & 2 certifications, the Examiner of the OA / IA shall review the summary and the transcripts before a digital copy of the Qualification Certificate (Appendix A) is generated, endorsed and issued to the candidate's employer.

9.2 For Level 3 certifications, upon the candidate's successful completion of the qualification examinations:

The Examiner of the OA / IA shall review the summary and transcripts and generate a soft copy of the Qualification Certificate (Appendices D and E). These are then submitted to NDTSS/NANDTB for endorsement.

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## 10 Recertification Process

### 10.1 Level 1-Limited

Level 1-Limited personnel shall be recertified at intervals not to exceed 2 years by successful completion of practical and specific examinations.

### 10.2 Level 1 and Level 2

Level 1 and Level 2 personnel shall be recertified at intervals not to exceed 5 years by successful completion of practical and specific examinations.

### 10.3 Level 3 re-certification:



Level 3 personnel shall be recertified at intervals not to exceed 5 years by:

#### 10.3.1 Credit System

- 1) Examiner of the OA / IA shall review the candidate's records. A copy of the summary, records and prepared soft copy of Qualification Certificate (Appendices D and E) is then submitted NDTSS/NANDTB for endorsement.
- 2) A NDTSS/NANDTB shall assign its EN 4179 Level 3 to review records and endorse the Qualification Certificate-Appendices D and E. (Refer to NDTSS/NANDTB/L3/01)
- 3) If accepting products is required as part of Level 3's duties, and additional hands-on practical examination equivalent to Level 2 is required.

#### 10.3.2 Examination

- 1) Successful completion of practical and specific examinations.
- 2) If accepting products is required as part of Level 3's duties, and additional hands-on practical examination equivalent to Level 2 is required.

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## 11 Employer Authorization

11.1 Employer may issue its authorisation certificate upon candidate's:

- Having the Qualification Certificate for the appropriate Level and method from IA or OA,
- Assessed that the experience requirements specified in the above paragraph are fulfilled,
- Having valid vision examination certificate, and
- Having assessed and completed any additional training and examination (such as specific techniques) that the Responsible Level 3 identified for the candidate.

11.2 The authorisation process shall comply with the procedure in the employer's Written Practice.

## 12 Records Management

12.1 Employer



The employer is responsible in maintaining the personal certification records of its NDT personnel as long as the certification is in effect. The minimum records are specified in EN4179/NAS410.

The scores for the latest written and practical examinations shall be kept by the employer but the actual examination scripts should be kept by the examination provider (OA, IA or NDTSS).

12.2 All records, except for the actual examination scripts, shall be made available to the applicable employee upon request or upon leaving the company for any reason.

12.3 Approved Outside Agency or Internal Agency shall retain the examination scripts for the written and practical examinations for a period more than 5 years from the date of certification.

All these records shall be made available for auditor by the regulatory body, NDTSS/NANDTB, or the employer's customers.

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### 13 References

- 13.1 NDTSS Examination procedure (NDTSS-QMP009)
- 13.2 Current revision of BS EN 4179 Aerospace series — Qualification and approval of personnel for non-destructive testing
- 13.3 Current revision of NAS410 —National Aerospace Standard
- 13.4 AFNDTB/08- Organisation, Duties and Responsibilities of NANDTB’s as Members of ANDTBF
- 13.5 AFNDTB/10-General Knowledge of Other Methods as required by EN4179.
- 13.6 EASA User Guide: UG.CAO.00161-001

### 14 Appendices

- Appendix A: Sample of Examination Results Notice Template (For Levels 1, 2 and 3) (For Outside and Inside Agency’s use only)
- Appendix B: Essential Information in a Qualification Certificates
- Appendix C: Test Methods and Techniques
- Appendix D: NDTSS/NANDTB EN4179 Qualification Certificate Template (Level 3 – Recertification by renewal point system)
- Appendix E: NDTSS/NANDTB NAS410 Qualification Certificate Template (Level 3 Recertification by renewal point system)
- Appendix F: NDTSS/NANDTB EN4179 Examination Results Notification Certificate Template (For NDTSS use only)
- Appendix G: Flow Chart of EN4179/NAS410 Level 1, 2 and 3 initial and recertification by examinations
- Appendix H: Flow Chart of EN4179/NAS410 Level 3 recertification by credit points system

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Signed for the Board



23 Oct 2023

Grace Liang Sook Fun

Chairman of the SNANDTB



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## Appendix A

Example of an Examination Results Notice Template  
(For Outside and Inside Agency's use only)  
Form number: NDTSS-QMS-FM-023/002

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**Appendix B**  
Required Information in a Qualification and Training Certificates

Qualification Certificate	Training Certificate
OA / IA name and address	OA / IA name and address
OA / IA approval number	OA / IA approval number
Candidate's full name	Trainee's full name
Employer's name	Employer's name
Examination Location	Trainee's place and date of birth
NDT method	Training location
NDT Level	NDT method
Specific NDT Technique(s) used in practical examination(s)	NDT Level
Employer's Written Practice reference	Duration of training in hours
Applicable standards(s) eg EN4179/NAS410.	Employer's Written Practice reference
Certificate number	
Date of issue	Date of issue
Date of completion of examination	Date of completion of training course
Reference to specifications covered by specific examinations	Reference to specifications covered by specific examinations
Examination part(s)	
Individual grades obtained (General, Specific & Practical)	
Overall grade awarded, including Pass or Fail	
Statement of limitations (where appropriate)	
Name of examiner	Name of instructor
Signature of examiner	Signature of instructor

**Appendix C**  
Test methods and techniques

Methods	Techniques
Penetrant Testing (PT)	Water wash
	Solvent-Removable
	Post emulsified (Hydrophilic).
Magnetic Testing (MT)	Fixed Bench
	Portable system
Ultrasonic Testing (UT)	Flaw detection through immersion
	Flaw detection through contact
	Flaw detection through transmission
Radiography Testing (RT)	X-ray using film
	Gamma ray using film
	Digital radiography (filmless)
	Computerised radiography (filmless)
Eddy Current Testing (ET)	High Frequency
	Low Frequency
	Dual Frequency
	Dynamic (rotating)
Thermographic Testing (TT)	Passive
	Active

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**Appendix D:**  
NDTSS/NANDTB EN4179 Level 3 Qualification Certificate Template  
(Reference: NDTSS-QMS-FM-027)

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### **Appendix E**

NDTSS/NANDTB NAS410 Level 3 Qualification Certificate Template  
(Reference: NDTSS-QMS-FM-028)

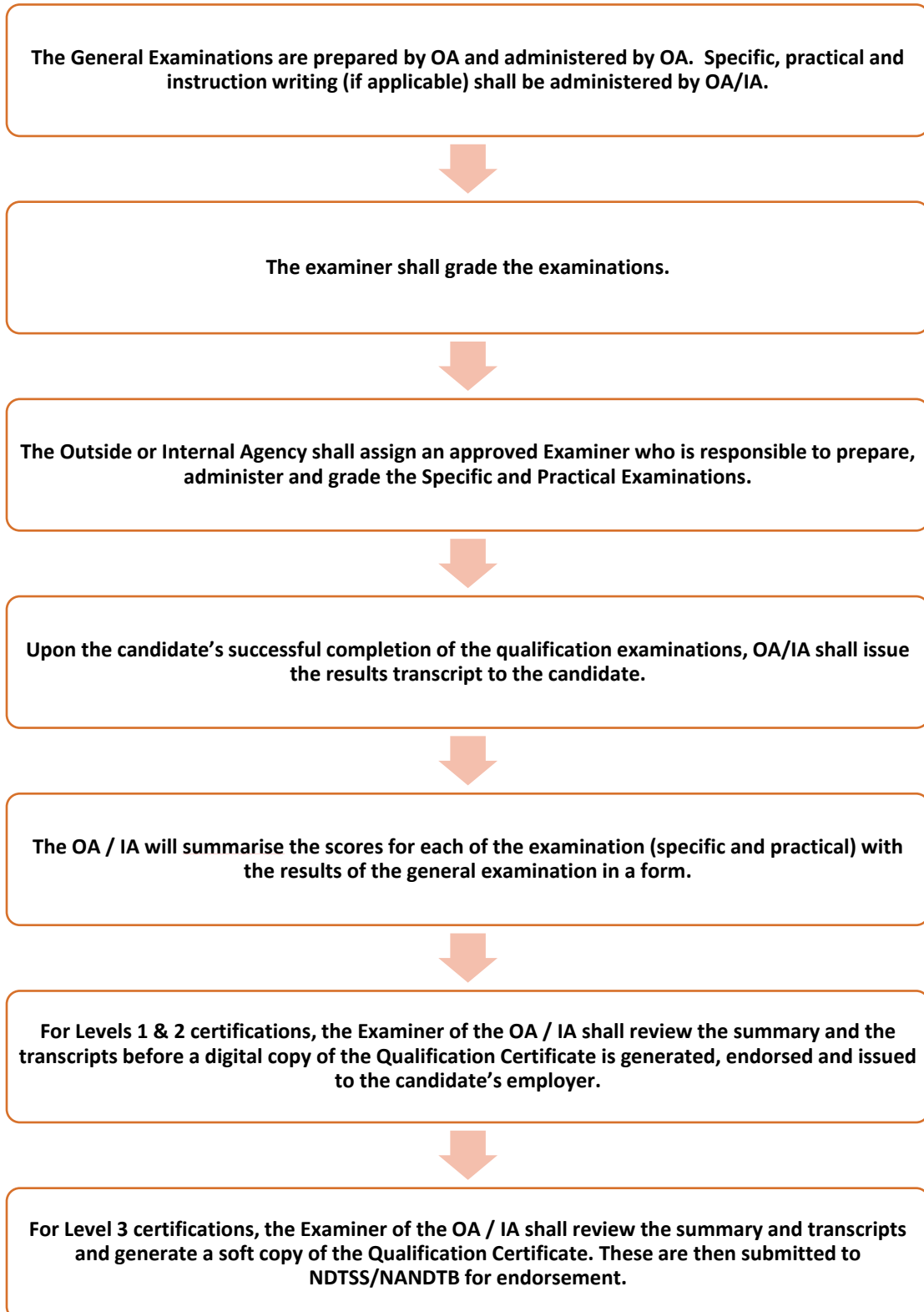
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**Appendix F**

NDTSS/NANDTB EN4179 Examination Results Notification Certificate Template  
(Reference: NDTSS-QMS-FM-022/003).

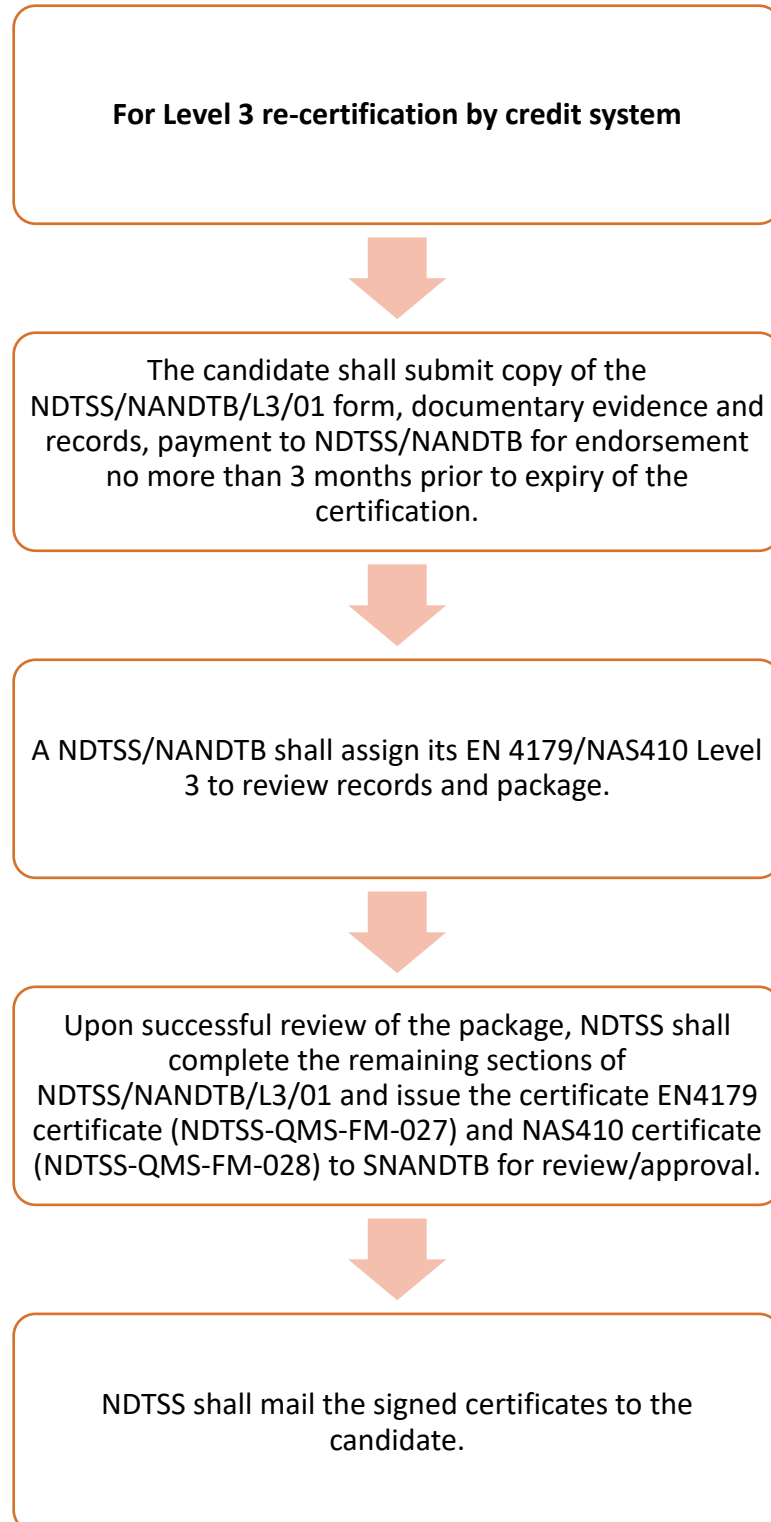
### Appendix G

#### Flow Chart of EN4179/NAS410 Level 1, 2 and 3 initial and recertification by examinations



### Appendix H

#### Flow Chart of EN4179/NAS410 Level 3 recertification by credit points system





### Change history

Change history	
Issue 0	Initial issue
Issue 1	<ul style="list-style-type: none"> <li>i. Amended section 3 Deleted “A person approved by NDTSS/NANDTB and appointed by an Outside or Internal Agency to conduct the NDT Specific or Practical examination” Reference: EN4179: 2017 Clause 3.10.</li> <li>ii. Added in “(For NDT Levels 1, 2 and 3)” for Appendices 1 and 2.</li> </ul>
Issue 2	<ul style="list-style-type: none"> <li>i. Added ‘Certification’ in the title of this procedure</li> <li>ii. Changed ‘Purpose’ of this procedure as NDTSS/NANDTB controlling the examinations and added the certification of qualification and the compliance of this procedure with EN 4179 / NAS 410 and ANDTBF 08.</li> <li>iii. Added the ‘Objectives’ of this procedure</li> <li>iv. Expanded the list of definitions</li> <li>v. Added paragraph on Responsibilities of the entities involved in the qualification and certification</li> <li>vi. Added the list of NDT methods covered in this procedure</li> <li>vii. Added the paragraph on training and experience requirements</li> <li>viii. Expanded the paragraph on examination requirements</li> <li>ix. Revised the paragraph on Administration of Examinations</li> <li>x. Added paragraphs on Certification and Authorisation</li> <li>xi. Added paragraph on Records Maintenance</li> <li>xii. Section 7.1: Prior arrangement must be made between the NANDTB-approved OA and NDTSS should NANDTB-approved OA wishes to administer General examinations.</li> </ul>
Issue 3	<ul style="list-style-type: none"> <li>i. Section 4- Employer or its Responsible Level 3: Added “Designate qualified Examiner, Instructor and outside agencies”</li> <li>ii. Section 7-Added “Examination providers (OA, IA and NDTSS) must ensure candidate meet the vision examination requirements as specified in EN 4179 and NAS 410. Vision requirement do not apply to instructors or auditors.</li> </ul>

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	<ul style="list-style-type: none"> <li>iii. All: Added Level 1-Limited.</li> <li>iv. Amended Section 9.2.</li> <li>v. Amended Section 10.3.</li> <li>vi. Section 13-Added “Current revision of NAS410 — National Aerospace Standard” and AFNDTB/08 and AFNDTB/010.</li> <li>vii. Added in Appendices G and H.</li> <li>viii. Section 3: Updated definition of internal agency.</li> </ul>
<p>Issue 4</p>	<p>5. Deleted “Sherography” as it is not one of the 6 EN4179/NAS410 NDT methods.</p> <p>1. Section 4- Outside and Internal Agencies: Amended “Administering and grading NDT general examinations with questions and marking scheme provided by NDTSS” to “Administering and grading NDT general examinations with questions and marking scheme”. Reason: NDTSS does not conduct general examinations.</p> <p>Amended “Developing questions, administering and grading general examination for IRT and ST methods” to “Developing questions, administering and grading general examination for IRT methods”. Reason: Shearography is no longer part of the 6 EN4179/NAS410 methods.</p> <p>Section 7- “Examination providers (OA, IA and NDTSS) must ensure candidate meet the vision examination requirements as specified in EN4179 and NAS 410. Vision requirement do not apply to instructors or auditors. “ to: “Examination providers (OA, IA) must ensure candidate meet the vision examination requirements as specified in EN 4179 and NAS 410. Vision requirement do not apply to instructors or auditors. “</p> <p>Amended: “It is the responsibility of the examination providers (OA, IA and NDTSS) to maintain the questions or question database current. These shall be available for review by the employer’s customers, NDTSS/NANDTB or the regulatory body.” To “It is the responsibility of the examination providers (OA, IA) to maintain the questions or question database current. These shall be available for review by the employer’s customers, NDTSS/NANDTB or the regulatory body.”</p>
<p>Issue 4 (Continued)</p>	<p>Section 7.1-</p>



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 Singapore – 609431



	<p>Amended “General examinations for IRT &amp; ST methods for NDT Level 1, 2 &amp; 3 qualifications are provided and administered by OA/IA” to “General examinations for IRT methods for NDT Level 1, 2 &amp; 3 qualifications are provided and administered by OA/IA”.</p> <p>Reason: Shearography is no longer part of the 6 EN4179/NAS410 methods</p> <p>Amended “General examinations (PT, MT, ET, UT, RT) for NDT Level 1, 2 &amp; 3 qualifications are administered by NDTSS or OA.” To “General examinations (PT, MT, ET, UT, RT, IRT) for NDT Level 1, 2 &amp; 3 qualifications are administered by OA.”</p> <p>Deleted “The employer’s Responsible Level 3 may contact the NDTSS office for an examination date for its sponsored candidates, or examination questions and marking scheme.” And      “Prior arrangement must be made between the OA and NDTSS should an OA wishes to administer General examinations. “ and      “General examinations for IRT methods for NDT Level 1, 2 &amp; 3 qualifications are provided and administered by OA/IA.</p> <p>Reason: This is no longer practised.</p> <p>Amended Note.</p>
	<p>Section 7.2:          Added          Passing a Basic Exam for an initial Level 3 can be demonstrated by ASNT or ISO9713 Level 3 or a previous NANDTB Level 3 qualification.          The candidate must pass the Level 3 Basic Examination before proceeding to attempt the method examinations.</p>
	<p>Section 8:          Amended “The General Examinations are prepared by NDTSS and administered by NDTSS or an OA. The examiner shall grade the examination with the scheme provided by NDTSS”.</p> <p>to          “The General Examinations are prepared by NDTSS and administered by NDTSS or an OA. The examiner shall grade the examination with the scheme provided by NDTSS. “</p>

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	<p>Amended: The Outside or Internal Agency shall assign an approved Examiner who is responsible to prepare, administer and grade the Specific and Practical Examinations, and all examinations for IRT and ST methods To: The Outside or Internal Agency shall assign an approved Examiner who is responsible to prepare, administer and grade all examinations.</p>
<p>Issue 4 (Continued)</p>	<p>Section 9: Amended: OA/IA shall issue the results transcript to the OA / IA for the general examinations it administered, except for IRT and ST methods (Appendix D). To: OA/IA shall issue the results transcript to the candidate (Appendix D).</p> <p>Section 12.3 Amended Approved Outside Agency or Internal Agency and NDTSS shall retain the examination scripts for the written and practical examinations. To: Approved Outside Agency or Internal Agency shall retain the examination scripts for the written and practical examinations.</p> <p>Appendix C: Added Infrared testing.</p> <p><b>Section 4:</b> Amended: <b>NDTSS:</b></p> <ul style="list-style-type: none"> <li>• Providing questions for the NDT general examinations for NDT Level 1, 2 and 3 for PT, MT, ET, RT and UT, and</li> <li>• Administering, grading and providing OA / IA with results for NDT general examinations conducted at NDTSS premises.</li> </ul> <p><u>Note:</u> OA may administer the examination with NDTSS providing the questions and marking scheme. To: Providing secretariat support.</p>
<p>Issue 4 (Continued)</p>	<p><b>Appendix B Qualification Certificate</b> Added examination location. <b>Training Certificate:</b></p>

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	<p>Added Trainee's place and date of birth, and Trainee's place and date of birth Reason: EASA User Guide Reference: UG.CAO.00161-001</p> <hr/> <p><b>Section 13:</b> Added 13.6 EASA User Guide: UG.CAO.00161-001</p>
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 The logo for NDTSS (Non-Destructive Testing Society) features a blue map of Singapore with the acronym 'NDTSS' in white text overlaid.	<p>Non-Destructive Testing Society (Singapore)/National Aerospace NDT Board 9, Jurong Town Hall Road, #02-21, Singapore – 609431</p>	 The logo for NDTB (National Aerospace NDT Board) features a stylized 'N' with a signal wave pattern, followed by 'NDTB' in blue and yellow text.
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