
	<p>Non-Destructive Testing Society (Singapore)/National Aerospace NDT Board 9, Jurong Town Hall Road, #02-21, Singapore – 609431</p>	
---	--	---

NDTSS/NANDTB/PM/008 (Issue 3) – Approval of Internal and Outside Agencies

1. Purpose

This procedure provides guidance:

- i. To applicant who intend to seek NDTSS/NANDTB’s approval as an Internal Agency or Outside Agency.
- ii. On minimum requirements for obtaining an Internal Agency or Outside Agency approval for conducting and administering qualification examinations for NDT inspectors in compliance with EN 4179 and NAS 410 standards.
- iii. On the procedure in approving Internal and Outside Agencies.

2 Definitions: None

3 Application Procedures

3.1 An organisation seeking approval to provide training and examinations services shall complete the application form NDTSS/NANDTB/OA/02 or NDTSS/NANDTB/IA/02, and send it to NDTSS/NANDTB Secretary, together with the list of supporting documents.

3.2 NDTSS/NANDTB will review the received form and documents and schedule an assessment audit in the event that the information in application form is complete and the documents are acceptable.



4 The Quality Manual:

The Agency’s quality manual shall include the following information as a minimum:

4.1 Management and Personnel –



4.1.1 Description of the organisation, its organisational structure and identification of its management personnel and responsibilities

4.1.2 It shall identify a Training Co-ordinator for the conduct, supervision and administration of the NDT training courses and continue education in NDT. The training co-ordinator shall be the point of contact for the NDTSS/NANDTB, and have the overall



	<p>Non-Destructive Testing Society (Singapore)/National Aerospace NDT Board 9, Jurong Town Hall Road, #02-21, Singapore – 609431</p>	
---	--	---

responsibility for ensuring compliance with NDTSS/NANDTB requirements.

- 4.1.3 It shall identify a Responsible Level 3 for the qualification and re-qualification of NDT personnel. Such as person shall have an appropriate level of knowledge of the inspection techniques, materials, types of construction, manufacturing processes, products specific to the aerospace sector used by the employer which is using the agency's services. The Responsible Level 3 may also be the Training Co-ordinator.
- 4.1.4 The qualifications and experience of instructors shall be specified. An instructor can be an individual designated or approved by the Responsible Level 3 or Examiner to provide training for NDT personnel.
The personnel giving practical instruction shall have experience of testing in the aerospace industry and be well informed of technical progress in the field. The list of instructors shall be provided to the NDTSS/NANDTB and examiners shall be approved by the NDTSS/NANDTB.
- 4.1.5 The Training Co-ordinator is responsible for the system for continuing education for instructors and examiners that they maintain current on the knowledge of NDT methods and the relevant techniques in their respective fields, and obtaining codes and specifications for aviation products used by the employer which is using the agency's services
- 4.1.6 For an Outside Agency, it shall have a system to record and resolve complaints.
- 4.2 Scope of the Training -
- 4.2.1 The scope of training shall be defined. It includes general, specific and practical instruction in the methods and procedures for which the approval is granted.
- 4.2.2 Specific training may be provided by the employer or the agency. The training shall include the relevant inspection procedures, instruction sheets, specifications, standards etc. The depth of knowledge shall be appropriate for the level of personnel and conform to the syllabus that is defined.

	<p>Non-Destructive Testing Society (Singapore)/National Aerospace NDT Board 9, Jurong Town Hall Road, #02-21, Singapore – 609431</p>	
---	--	---

- 4.2.3 The syllabus on which each course is based shall be documented and regularly reviewed with respect to the developments in the relevant NDT methods, and international and aerospace standards and specifications of aeronautical manufacturers.
- 4.3 Control of Training and Examinations -
- 4.3.1 Training course documents shall be controlled and kept current by continually updated with new developments and the changes in the training curriculum.
- 4.3.2 The source of examination questions shall be identified. General examination questions shall be administered by NDTSS/NANDTB-approved Outside Agencies. Question banks (Specific) that are possessed by the organisation shall be control and revised taking into account the development in the NDT techniques and technology and changes in standards and specifications related to the NDT methods.
- 4.3.3 Prepared examinations shall be securely stored before use and candidates shall not be allowed to review the examination questions before and after the examination. Practical samples used during training shall not be used for examination.
- 4.3.4 There shall be procedures to address the following:
- i. Conduct of examinations,
 - ii. Measures taken to prevent cheating.
 - iii. System of examination results notification.
 - iv. System for candidates who need to retake the examinations
 - v. Retention period, responsible party and storage type (digital/hard) copies of examination related package..

	<p>Non-Destructive Testing Society (Singapore)/National Aerospace NDT Board 9, Jurong Town Hall Road, #02-21, Singapore – 609431</p>	
---	--	---

4.4 Facilities –

4.4.1 Suitable training environment, training aids and equipment shall be available. Training may be conducted at the organisation’s building or at a customer’s facility. If the Outside Agency does not have its own equipment, an agreement between the Outside Agency and the customer must always be valid and available (example: regulatory/customer/SNANDTB audits).



4.4.2 NDT plant and equipment shall be available, including instruments and accessories and reference pieces to cover the range of inspection techniques within the procedures taught. The plant and equipment provided shall reflect those used by the candidates in their normal work.

4.4.3 Test samples and specimen shall be available in sufficient number and complexity to cover the whole range of applications within the curriculum. There shall be sufficient number of representative test samples specific to the aerospace industry and containing natural or artificial faults to cover the whole range of testing. These shall be controlled and securely stored.

4.5 Certification of Participation -

4.5.1 Candidates who have successfully achieved the minimum qualification requirements shall be issued with a certificate confirming that they have completed their NDT training successfully. The content of the certificate shall include as a minimum :

- Name of candidate
- Date and place of birth of the candidate
- Name of the Approved Maintenance Organisation
- Reference to the Approved Maintenance Organisation NDT written practice and training course outlines
- Place where the training took place
- Method(s) with technique
- Level
- Period of training course and required training hours
- Date of examination
- Name of instructor, examiner and coordinator
- Standards and customer specification

	<p>Non-Destructive Testing Society (Singapore)/National Aerospace NDT Board 9, Jurong Town Hall Road, #02-21, Singapore – 609431</p>	
---	--	---

4.6 Records -

4.6.1 Procedures on maintaining records of every participant in the training course. The information shall include:

- Date(s) of NDT training and completion of training
- Name of the course
- Instructors and examiners involved
- Results achieved in the final examination and the examination documents
- Details of the test specimen, the premises and equipment used in the examination.

4.6.2 Procedures on maintaining the records of instructors, which include:

- Experience
- Qualifications
- Approvals
- Special training and continuing education.

4.6.3 Procedures on test samples / training specimen documentation which include:

- Those for training and examinations (Segregation system for samples and specimens)
- Data on sample / specimen defects and their locations
- An unique identification system for each sample and specimen.

5 **Assessment of Application**

5.1 NDTSS/NANDTB will assess the information in the application form and the submitted documents and forward to NDTSS.

5.2 An auditor(s) will be assigned by NDTSS on behalf of NDTSS/NANDTB, who will arrange with the applicant for an on-site audit.

Note: If the organisation is not ISO 9001 certified, an additional audit covering the elements of ISO 9001 will be required. The auditor shall have the training , knowledge, and skills in understanding the codes, standards, process and procedures utilized in the NDT processes in the company that is audited. As a minimum, the auditors shall have a lead auditor qualification and certified in at least 1 method.

	<p>Non-Destructive Testing Society (Singapore)/National Aerospace NDT Board 9, Jurong Town Hall Road, #02-21, Singapore – 609431</p>	
---	--	---

- 5.3 The audit will be in accordance with QMP/006, NDTSS/NANDTB/IA/03 for internal agency and NDTSS/NANDTB/OA/01 for outside agency.
- 5.4 In the event that significant findings are found in the audit, the organisation has up to three months to identify the root cause and implement corrective and preventive actions. For findings that may have significant product impact, shall be reported to NDTSS/NANDTB. In the event of such findings, the company shall take immediate containment actions and submit a preliminary report within 3 days and a final report within 7 days.
- 5.5 The organisation may also appeal against the audit report and findings. Refer to Section 6 for the appeal process details.
- 5.6 The secretary will assign a reviewer of the report (member of the Board) and when it is satisfactory, endorse the report. NDTSS on behalf of NDTSS/NANDTB will then issue the approval certificate to the training provider
- 5.7 A sample of the Approval (Outside Agency) is in appendices 1 and 2.
- 5.8 A sample of the Approval (Internal Agency) is in appendices 3 and 4.

6 Appeal Process

- 6.1 If the organisation wishes to appeal against the audit report and findings, the Organisation shall write in officially to the Chair of NDTSS/SNANDTB stating the areas of contention, the clauses against EN4179/NAS410, etc details within 2 weeks upon receipt of the audit report.
- 6.2 The Chair of NDTSS/SNANDTB will then review the appeal documentation, check for its validity and call for an internal Board management discussion with Vice Chair of NDTSS/SNANDTB. The regulator may sit in as an observer. The organisation will be notified of all decisions within 3 weeks upon receipt of the appeal documentation.

	<p>Non-Destructive Testing Society (Singapore)/National Aerospace NDT Board 9, Jurong Town Hall Road, #02-21, Singapore – 609431</p>	
---	--	---

- 6.3 Should the organisation upon receipt of the appeal documentation still wishes to seek a final appeal route, the organisation representative shall write in officially to the Chair of NDTSS/SNANDTB stating the reasons for appeal, the clauses against EN4179/NAS410, proposed corrective/preventive actions etc details within 1 week upon receipt of the appeal documentation.
- 6.4 The Chair of NDTSS/SNANDTB will then appoint at least 3 Board members to form a Final Appeal Committee. All details of the audit reports, first appeal package documentation, etc will be made available. The Final Appeal Committee will deliberate and inform the Chair of NDTSS/SNANDTB of their final decisions within 3 weeks of the Committee formation in a report.
- 6.5 The Chair of NDTSS/SNANDTB will review the report and inform the Organisation of the final decision.
- 6.6 The Organisation will have to comply with the decision and prepare the necessary corrective/preventive actions (if required) to close the gap(s) identified. The Organisation will inform the Chair of NDTSS/SNANDTB the status within 1 week of receipt.
- 6.7 The Chair of NDTSS/SNANDTB will request the Final Appeal Committee to review the outstanding gaps. The Final Appeal Committee will inform the Chair of NDTSS/SNANDTB their decision.
- 6.8 The Chair of NDTSS/SNANDTB will inform the Organisation the decision status.
- 6.9 Upon closing all the significant findings, the auditor(s) will submit an audit report to NANTDB's secretary (NDTSS).

7 Approval

- 7.1 The approval is valid for a period of 1 year. It remains valid as long as the organisation maintains compliance with all the requirements of the assessment.
- 7.2 The responsible person of the organisation shall notify the NDTSS/NANDTB through the secretary (NDTSS) of any changes in personnel or other aspects of the organisation which could impact the scope of the approval.

- 7.3 It is the responsibility of the organization to apply for renewal assessment before the expiry of the approval.
- 7.4 Approval may be withdrawn if the NDTSS/NANDTB becomes aware that:
- The conditions on which approval was granted are no longer fulfilled
 - Changes to the organisation as noted above have not been conveyed to the NDTSS/NANDTB
 - The organisation has acted unethically.

The organisation is allowed to explain the case before the NDTSS/NANDTB prior to the withdrawal action.

- 7.5 The organisation may seek to vary the scope of its approval, such as additional courses or training locations. The same procedure as the first application will be used, but reduced to the scale of the variation. The request shall include a copy of the syllabus and description of the course documents, a list of equipment, test specimens and qualification of instructors and training and examinations facilities.
- 7.6 A listing of current approved training organisations is available on NDTSS website <<http://www.ndtss.org.sg>>

8. References

Current revision of BS EN 4179 Aerospace series — Qualification and approval of personnel for non-destructive testing

Current revision of EASA User Guide UG.CAO.00161-001.

9. Appendices

Appendix 1	Sample certificate of Outside Agency Approval (EN4179 Scheme)
Appendix 2	Sample certificate of Outside Agency Approval (NAS410 Scheme)
Appendix 3	Sample certificate of Inside Agency Approval (EN4179 Scheme)
Appendix 4	Sample certificate of Inside Agency Approval (NAS410 Scheme)

	<p>Non-Destructive Testing Society (Singapore)/National Aerospace NDT Board 9, Jurong Town Hall Road, #02-21, Singapore – 609431</p>	
---	--	---

Signed for the Board

03 Jan 2023

P.Ratnavelu

Chair of the SNANDTB

	<p>Non-Destructive Testing Society (Singapore)/National Aerospace NDT Board 9, Jurong Town Hall Road, #02-21, Singapore – 609431</p>	
---	--	---


Appendix 1: Sample certificate of Outside Agency Approval (EN4179 Scheme)

		<p>APPROVAL NO: 0AXXXX/IS1</p>
<p>NON-DESTRUCTIVE TESTING SOCIETY (SINGAPORE) CERTIFICATE OF AUTHORIZATION</p>		
<p>This is to certify Name of Company</p>		
<p>has met the published Requirements of certification body as an Outside Agency and accepted by NDTSS/NANDBT in accordance with EN 4179:2017 to Conduct training and qualification examination for</p>		
<p>LEVEL 1,2 & 3 in Aerospace Sectors</p>		
<p>Ultrasonic Testing</p>	<p>Magnetic Particle Testing</p>	
<p>Penetrant Testing</p>	<p>Eddy Current Testing</p>	
<p>Date of issue: DDMMYYYY</p>	<p>Valid till: DDMMYYYY</p>	
<p>_____ AUTHORIZED SIGNATORY -NDTSS</p>	<p>_____ AUTHORIZED SIGNATORY -NDTSS / NANDBT</p>	<p>_____ SCHEME MANAGER SIGNATURE</p>
<p><small>NDTSS is a certification body Accredited by SAC in accordance with ISO IEC 17024 for the published scope—www.ndtss.org.sg The OA is subject to annual audit by NDTSS for continuity</small></p>		

	<p>Non-Destructive Testing Society (Singapore)/National Aerospace NDT Board 9, Jurong Town Hall Road, #02-21, Singapore – 609431</p>	
---	--	---

Appendix 2: Sample certificate of Outside Agency Approval (NAS410 Scheme)

		<p>APPROVAL NO: OAXXX/IS1</p>
<p>NON-DESTRUCTIVE TESTING SOCIETY (SINGAPORE) CERTIFICATE OF AUTHORIZATION</p>		
<p>This is to certify Company name</p>		
<p>has met the published Requirements of certification body as an Outside Agency and accepted by NDTSS/NANDBT in accordance with NAS410 Rev 4 to Conduct training and qualification examination for</p>		
<p>LEVEL 1, 2 & 3 in Aerospace Sectors</p>		
<p>Ultrasonic Testing</p>	<p>Magnetic Particle Testing</p>	
<p>Penetrant Testing</p>	<p>Eddy Current Testing</p>	
<p>Date of Issue: DDMMYYYY</p>	<p>Valid till: DDMMYYYY</p>	
<p>AUTHORIZED SIGNATORY - NDTSS</p>	<p>AUTHORIZED SIGNATORY - NDTSS / NANDBT</p>	<p>SCHEME MANAGER SIGNATURE</p>
<p><small>NDTSS is a certification body Accredited by SAC in accordance with ISO/IEC 17024 for the published scope—www.ndtss.org.sg The OA is subject to annual audit by NDTSS for continuity</small></p>		

	<p>Non-Destructive Testing Society (Singapore)/National Aerospace NDT Board 9, Jurong Town Hall Road, #02-21, Singapore – 609431</p>	
---	--	---



Appendix 3: Sample certificate of Inside Agency Approval
(EN4179 Scheme)

		<p>APPROVAL NO: IAXXXX/IS1</p>	
<p>NON-DESTRUCTIVE TESTING SOCIETY (SINGAPORE) CERTIFICATE OF AUTHORIZATION</p>			
<p>This is to certify Name of Company</p>			
<p>has met the published Requirements of certification body as an Internal Agency and accepted by NDTSS/NANDBT in accordance with EN 4179:2017 to Conduct training and qualification examination for</p>			
<p>LEVEL 1,2 & 3 in Aerospace Sectors</p>			
<p>Ultrasonic Testing</p>	<p>Magnetic Particle Testing</p>		
<p>Penetrant Testing</p>	<p>Eddy Current Testing</p>		
<p>Date of issue: DDMMYYYY</p>	<p>Valid till: DDMMYYYY</p>		
<p>AUTHORIZED SIGNATORY -NDTSS</p>	<p>AUTHORIZED SIGNATORY -NDTSS / NANDBT</p>	<p>SCHEME MANAGER</p>	<p>SIGNATURE</p>
<p><small>NDTSS is a certification body Accredited by SAC in accordance with ISO/IEC 17024 for the published scope—www.ndtss.org.sg The OA is subject to annual audit by NDTSS for continuity</small></p>			

	<p>Non-Destructive Testing Society (Singapore)/National Aerospace NDT Board 9, Jurong Town Hall Road, #02-21, Singapore – 609431</p>	
---	--	---

Appendix 4: Sample certificate of Inside Agency Approval
(NAS410 Scheme)

	<p>APPROVAL NO: IAXXX/IS1</p>	
<p align="center">NON-DESTRUCTIVE TESTING SOCIETY (SINGAPORE) CERTIFICATE OF AUTHORIZATION</p>		
<p align="center">This is to certify Company name</p>		
<p align="center">has met the published Requirements of certification body as an Internal Agency and accepted by NDTSS/NANDBT in accordance with NAS410 Rev 4 to Conduct training and qualification examination for</p>		
<p align="center">LEVEL 1, 2 & 3 in Aerospace Sectors</p>		
<p>Ultrasonic Testing</p>	<p>Magnetic Particle Testing</p>	
<p>Penetrant Testing</p>	<p>Eddy Current Testing</p>	
<p>Date of issue: DDMMYYYY</p>	<p>Valid till: DDMMYYYY</p>	
<p>AUTHORIZED SIGNATORY -NDTSS</p>	<p>AUTHORIZED SIGNATORY -NDTSS / NANDBT</p>	<p>SCHEME MANAGER SIGNATURE</p>
<p align="center"><small>NDTSS is a certification body Accredited by SAC in accordance with ISO /IEC 17024 for the published scope—www.ndtss.org.sg The OA is subject to annual audit by NDTSS for continuity</small></p>		

	<p>Non-Destructive Testing Society (Singapore)/National Aerospace NDT Board 9, Jurong Town Hall Road, #02-21, Singapore – 609431</p>	
---	--	---

Change history	
Issue 0	Initial issue
Issue 1	<p>Amended section 4.1.4 Deleted “As a minimum, they shall be qualified to EN 4179 or NAS 410 requirements at Level 3”. Added “An individual designated or approved by the Responsible Level 3 or Examiner to provide training for NDT personnel.” Reference: EN4179: 2017 Clause 3.16.</p>
Issue 2	<p>Section 4.3.2: Amended the following: “General examination questions may be provided by NDTSS.” To “General examination questions are provided by NDTSS/NANDTB-approved Outside Agencies”.</p> <p>Section 4.4.1: Added “If the Outside Agency does not have its own equipment, an agreement between the Outside Agency and the customer must be valid and available at all times (example: regulatory/customer/SNANDTB audits).”</p> <p>Section 5.2: Added note.</p> <p>Section 5.5: Added “The organisation may also appeal against the audit report and findings. Refer to Section 6 for the appeal process details.</p> <p>Section 6: Added new section on appeal process.</p>
Issue 3	<p>4.3.2 Change ‘ May be provided’ to “shall be administered” 4.3.4 Added requirements for retention of examination packages. 4.5.1 Added additional information to be reflected on certificates 5.2 Added requirements for auditors 5.3 Added NDTSS procedure QMP/006 and OA and IA audit checklist control number 5.4 Added reporting to Board on findings that will affect product impact and timeline for reporting by the company.</p>