



Department of Civil Aviation – Sri Lanka .
Aviation Safety Notice

Subject : Personnel Certification for Non Destructive Testing of Aircraft, Engines, Components and materials

Nature : Advisory

Status : New

Issue No. : 01

Date of Issue : 25.03 2002

Objective : To inform Approved Maintenance Organizations procedures to be adopted in Personnel Certification for NDT

Background : Approved Maintenance Organization Certificate holders have no published information on Certification of NDT Personnel.

Recipients : All AMO Certificate Holders

Effective Date : 01. 04.2002

Validity : Until further notice

Contact person : Airworthiness Division of the Department of Civil Aviation

Availability : A copy of this document is available for reference at the Communication Centre, Department of Civil Aviation, 64, Galle Road, Colombo 3.



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Concept:

1. General

- 1.1. This Aviation Safety Notice advises the Department Of Civil Aviation requirements for the qualification of Non-Destructive Testing (NDT) personnel, which shall be in accordance with European Standards EN473¹ or EN4179², and the Approved Organisation's Approved Maintenance Control Manual (MCM) for the authorization of NDT personnel.
- 1.2. This Aviation Safety Notice clarifies the Department Of Civil Aviation policy relating to the acceptability of organization-based schemes for the qualification of NDT personnel in accordance with European NDT personnel requirements, and is intended to recognize the competence of level 3 qualified personnel.
- 1.3. The term NDT is used throughout this Notice to include, but not be limited to, liquid penetrant, magnetic particle, eddy current, ultrasonic, radiographic and other recognized methods as identified in the above referenced standards and shall be applicable to all NDT methods used by Approved Organisations. Other methods and their associated procedures will be subject to approval by the Authority under the applicable airworthiness approval standard (JAR-21, JAR-145.BCAR).

¹EN473 – General Principle for Qualification and Certification of NDT Personnel

²EN4179 – Qualification and approval of personnel for non-destructive testing.

2. Procedures for the Qualification of NDT personnel

- 2.1. All Approved Organisations involved in any aspect of NDT shall develop and maintain procedures for the qualification and authorisation of their NDT personnel in accordance with either EN473 for a central personnel Certification scheme (see Section 2.2) or EN4179 for an organization-based Personnel Certification scheme. In either case, the organisation's procedures and/or written practice as defined by EN4179 shall be approved by the Nominated Level 3 (see section 3).
- 2.2. The Director-General of Civil Aviation currently recognizes the national scheme for Personnel Certification in Non-Destructive Testing (PCN) administered by the British Institute of Non-Destructive Testing as meeting the requirements of EN473.



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3. Qualified Staff

- 3.1. Department Of Civil Aviation Approved Organisations undertaking NDT in accordance with BCAR or JAR must satisfy the Department Of Civil Aviation that they have adequate numbers of suitable qualified staff to discharge the responsibilities of the approval.
- 3.2. Organisations shall nominate in writing, supported with evidence of certification, an individual responsible to the Chief Executive/Accountable Manager, for the technical supervision of NDT. This individual will hold independent central certification at Level 3 in the appropriate Industry Sector and will be referred to as the ‘Nominated Level 3’. This position shall be identified within the Organisation MCM, and any change in this position advised to the Authority.
- 3.3. The DGCA recognizes PCN Level 3 certified personnel under EN473 and independently centrally certified American Society for Non-Destructive Testing (ASNT) level 3 personnel suitably experienced in aerospace under EN4179, as qualified for the position of Nominated Level 3.
- 3.4. Where the Nominated Level 3 is not qualified in all methods used by the Organisation, then the additional Level 3s necessary to provide coverage shall be independently centrally certified.
- 3.5. Additional Level 3 Certification holders shall be listed in the Organisation MCM or reference made in the MCM to other documents containing the list of Level 3 holders. Any changes to this list are to be notified to the Authority through appropriate amendments.
- 3.6. The DGCA may accept persons external to the Organisation as the Nominated Level 3, provided written agreement exists between the individual and the Organisation setting out the individual’s responsibilities within the Organisation.

4. Inspections and Certification of Inspections

- 4.1. NDT inspections shall be carried out by personnel approved in accordance with the Organisation’s MCM. Where NDT procedures are specified by the organization responsible for the design and/or manufacture of the aircraft, material, structure or component, then these must be used, except where change is permitted and authorized as defined in paragraph 5 of this Notice. Where non-mandatory inspections are to be undertaken, for which the responsible design/manufacturing organization has not specified NDT procedures, then the NDT method, technique, procedure and instruction shall be prepared in accordance with paragraph 5 of this Notice and approved by a Level 3 holder qualified in the applicable method.



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- 4.2. Normally, certification of inspections will be made by persons who hold Level 2 or above authorizations. However, where an inspection task is determined by the Nominated Level 3 to have clearly defined acceptability and rejection criteria requiring no interpretation, then certification may be carried out by an authorized Level 1, as detailed within the written practice.
- 4.3. Where a Level 3 is required to carry out and certify an NDT inspection then this person must either hold current Level 2 certification in those methods, or be able to provide evidence that they have successfully completed an appropriate Level 2 practical examination and maintained continuity in the application of practical testing as defined in the referenced standards and detailed in the MCM.

5. NDT Techniques and Instructions and their approval

- 5.1. NDT techniques, procedures and instructions, published and specified by the Type Certificate holder in NDT Manuals, Service Bulletins, Approved Drawings etc. constitute airworthiness data.
- 5.2. Where the Airworthiness data published by the Type Certificate holder permits changes (e.g. selection of equipment model, probe type etc.) then such changes must be authorized in writing by a Level 3 qualified in the appropriate method.
- 5.3. Any other change requires the written agreement of the Type Certificate holder responsible for the design of the product/structure before such a change is implemented.
- 5.4. NDT Instructions prepared by a Level 2 holder shall be approved by a Level 3 holder qualified in the applicable method.
- 5.5. The procedure for the control of all NDT techniques, procedures and instructions, including their preparation and authorisation within any Department Of Civil Aviation Approved organization, shall be detailed in the Organisation's approved Quality procedures.

6. Suppliers and Sub-contractors to Approved Organisations

An Organisation utilizing suppliers and sub-contractors where NDT processes are employed, shall detail within their MCM how the Organisation ensures that training and approval of NDT personnel in such suppliers or sub-contractors is controlled.

Lal Liyanaarachchi
Director-General of Civil Aviation