



Federal Aviation Administration

Memorandum

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To: All Manufacturing Inspection Office Managers
All Manufacturing Inspection District/Satellite Offices
All Flight Standards District Offices

From: Frank P. Paskiewicz, Manager, Production and Airworthiness Division, AIR-200
David E. Cann, Manager, Aircraft Maintenance Division, AFS-300

Prepared by: Angelia Collier, AIR-220

Subject: INFORMATION: Qualification Standards for Nondestructive Testing

This memo contains information only and as such is not national policy. Questions have been raised by FAA Aviation Safety Inspectors on how to determine if qualified personnel are performing Nondestructive Testing (NDT). AIR-200, AFS-300, the National Resource Specialist for Nondestructive Testing and the Chief Scientific and Technical Advisor for Nondestructive Evaluation, have compiled this information to assist FAA Inspectors in determining that only qualified personnel perform NDT. This memorandum supersedes previous NDT qualification standards memorandum dated June 13, 2007.

In the United States there is no national certification requirement or standard for aviation NDT personnel to determine that individuals are qualified to perform NDT. However, there are several current national and international standards acceptable to the FAA that may be used to determine that only qualified personnel perform NDT. For example:

MIL-STD-410E, Military Standard. Nondestructive Testing Personnel Qualification and Certification. This document has been rescinded by the Department of Defense, but is still considered acceptable to the FAA.

ATA Specification 105, Air Transport Association, Guidelines for Training and Qualifying Personnel in Nondestructive Testing Methods.

AIA-NAS-410, Aerospace Industries Association, National Aerospace Standard-410 Certification & Qualification of Nondestructive Test Personnel. This document has superseded MIL-STD-410E.

Recommended Practice SNT-TC-1A: Personnel Qualification and Certification in Nondestructive Testing (2006). This document provides guidelines for employers to establish in-house certification programs for the qualification and certification of NDT personnel.

Internationally, NDT standards generated by other regulatory agencies and national certification programs have been, and are considered, acceptable to the FAA. For example, individuals considered NDT qualified/certified under EN 4179 Aerospace Series – “Qualification and Approval of Personnel for Nondestructive Testing”, (EN 4179, as published, is technically equivalent to AIA NAS-410) are considered qualified by the FAA.

The following information discusses the generic elements of the standards considered acceptable to the FAA and can be utilized as the basic requirements to determine that only qualified individuals perform NDT inspections. Any organization developing its own procedures to determine that only qualified personnel perform NDT, should minimally address the generic elements.

1. Vision Examinations: NDT personnel shall receive documented vision and color blindness testing at reasonable intervals (one year preferred). The NDT inspector shall have documented evidence of satisfactory vision in accordance with accepted medical standards to be considered a qualified NDT inspector. Vision examinations can either precede or accompany the initial determination of qualification to perform NDT. Vision examinations shall be administered by personnel in accordance with the standard to determine qualification.

(a) Near Distance Vision Requirements:

The NDT inspector shall have natural or corrected near distance acuity in at least one eye capable of 20/25 (Snellen) at 14" to 18" or equivalent.

(b) Color Vision Requirements:

The NDT inspector shall be capable of adequately distinguishing and differentiating colors used in the process involved.

(c) Vision Examination Documentation Requirements:

Following initial qualification, the documented near distance and color vision examinations shall be administered as required above, and records will be retained by the employer.

2. Levels of Qualification: NDT personnel can be categorized at different levels of competence (e.g., Trainee, Limited, Level 1, 2, or 3). They can also be categorized for different functional areas, such as inspector, trainer, or auditor. NDT personnel should perform only at the level(s) or function(s) to which they have been qualified.

3. Training: NDT personnel should receive documented initial and recurrent training in the standards, methods, and levels they utilize. This should be a mix of classroom, practical, and on-the-job training. The frequency and content of recurrent training will be specified by the standard under which the NDT personnel have been qualified.

4. Testing: NDT personnel should demonstrate documented proficiency, both in classroom knowledge and practical application of test method(s). NDT personnel shall have a combination of

education, training, and experience as determined by the specific standard under which they are determined qualified. NDT inspectors must understand the principles and procedures of applicable NDT methods. Personal information including education, training, and experience must be documented and validated against the standard under which the NDT inspector is considered qualified.

5. Experience: NDT personnel require experience in a test method to be considered qualified to perform that test method. Recent (within the last 6-12 months, shorter period preferred) utilization of the inspection method being performed is necessary in order to maintain a qualified NDT inspector status. Inspectors not meeting this recent experience level would need to be requalified.

6. Disqualification: A procedure needs to be in place to allow an organization to disqualify a NDT individual from performing inspections when the inspector doesn't meet current standards.

7. Documentation: Sufficient documentation must be available and retained to demonstrate that only qualified personnel are engaged in the NDT process. Records shall be maintained for each qualified individual, and for each individual who has been disqualified to perform NDT. Records shall include all education, experience, vision examination, and training documentation.

This information has been coordinated with the Flight Standards Service, and a copy of this memorandum has been placed in the AIR-200 Best Practices at:

http://www.faa.gov/aircraft/air_cert/production_approvals/mfg_best_practice/

If there are any questions, please contact a member of the Production and Airworthiness Division at (202) 267-8361.