I, mark alan skidmore, Director of Aviation Safety, on behalf of CASA, make this instrument under regulations 5 and 33B and subregulation 42ZC (6) of the *Civil Aviation Regulations 1988*, subsection 98 (5A) of the *Civil Aviation Act 1988* and subsection 33 (3) of the *Acts Interpretation Act 1901*.

**[Signed M. Skidmore]**

Mark Skidmore AM  
Director of Aviation Safety

22 April 2015

Civil Aviation Order 100.27 (Non-destructive testing authorities) Instrument 2015

1 Name of instrument

This instrument is the Civil Aviation Order 100.27 (Non-destructive testing authorities) Instrument 2015.

2 Repeal

*Civil Aviation Order 100.27 Instrument 2007* as amended from time to time (***CAO 100.27***) is repealed.

3 Commencement

This Order commences on the day of registration.

4 Transitional

4.1 The repeal of CAO 100.27 does not affect the validity of a non-destructive testing authority issued under that Order.

4.2 An application for renewal of a non-destructive testing authority issued under CAO 100.27 must be made in accordance with Civil Aviation Order 100.27 (Non‑destructive testing authorities) Instrument 2015.

5 Definitions

In this Order:

***AS*** means Australian Standard.

***COA holder*** means a person who holds a certificate of approval under regulation 30 of the *Civil Aviation Regulations 1988* (***CAR 1988***) for maintenance of aircraft, aircraft components or aircraft materials.

***NANDTB*** means National Airworthiness Non-Destructive Testing Board.

***NDT*** means non-destructive testing.

***recognised foreign NANDTB*** means a NANDTB recognised in writing by CASA on the recommendation of the National Aerospace Non-Destructive Testing Board of Australia (***NANDTB Aust.***), being a foreign NANDTB whose standard for NDT is NAS 410, EN 4179 or another standard approved by CASA under subparagraph 6.1 (d).

***recognised*** ***standard*** means a standard referred to in subparagraph 6.1 (b), (c) or (d).

***relevant NDT method*** or ***relevant method*** includes, when applicable, the techniques within the method.

***responsible level 3 person*** means a level 3 qualified person as described in paragraph 6.2 who has been designated by the COA holder with the responsibility and authority to ensure that the requirements of the standard are met and to certify qualified individuals.

***visual acuity*** means a person’s near vision and colour perception, confirmed in accordance with paragraph 6.3.

6 Requirements for issuing NDT authorities

6.1 For issuing an NDT authority under regulation 33B of CAR 1988, CASA recognises level 1 “limited”, level 1 and level 2 NDT qualifications contained in the following standards, as in force from time to time:

1. AS 3669, the Australian standard;
2. NAS 410, the U.S.A. standard;
3. EN 4179, the European standard;
4. any other standard that CASA, on the recommendation of NANDTB Aust., approves for that purpose.

6.2Assessment of NDT qualifications must be managed by a responsible level 3 person who:

(a) has been designated as such by the COA holder; and

(b) has been recognised by NANDTB Aust. as meeting the requirements of AS 3669 or a recognised standard for level 3 qualification.

6.3 An examination to confirm that an applicant’s visual acuity meets the requirements of AS 3669, or a recognised standard, must be conducted by a qualified optometrist or another person holding a qualification recognised by CASA for that purpose.

7 Requirements for NDT authority

7.1 In order to obtain an NDT authority, an applicant is required, in accordance with AS 3669 or a recognised standard:

(a) to have gained practical experience, to an appropriate level of qualification, in the relevant NDT method, being a method referred to in AS 3669 or a recognised standard; and

(b) to have passed any required written examination (as required under AS 3669 or a recognised standard) in the relevant method to an appropriate level of qualification; and

(c) to have performed practical tests which demonstrate proficiency in the relevant method to an appropriate level of qualification; and

(d) to have met the required standard of visual acuity as mentioned in AS 3669.

*Note*For colour perception, NDT personnel must be capable of adequately distinguishing and differentiating the colours used in the NDT process involved. Any limitation in colour perception must be evaluated and documented by the responsible level 3 person to determine its significance to the person’s work before issuing an approval.

7.2 Assessments must be conducted in accordance with the requirements set out in AS 3669 and paragraph 7.3.

7.3 Any written examination, and any practical test, required under paragraph 7.2 to satisfy the requirements of a standard must be managed by:

(a) a responsible level 3 qualified person, as described in paragraph 6.2, who is recognised by NANDTB Aust. as qualified to do so; or

(b) a recognised foreign NANDTB.

8 Evidence of appropriate level of qualification

CASA will accept as evidence that an applicant for an NDT authority has reached an appropriate level of qualification in an NDT method:

(a) written certification that the applicant has done so, issued by an employer who has complied with paragraph 7.2; or

(b) verification that an applicant’s NDT technical qualification is one that is:

(i) published from time to time by the NANDTB as meeting the requirements of AS 3669 or a recognised standard; and

(ii) recognised by CASA.

9 Term and scope of NDT authority

9.1An NDT authority must be issued for a period not exceeding 5 years to an applicant who satisfies the requirements of paragraph 8.1. It must be endorsed for the relevant NDT method with such limitations as are appropriate, having regard to the applicant’s examination, training and experience.

9.2An NDT authority must be issued to the appropriate level of qualification, being level 1 “limited”, level 1, or level 2 as specified in AS 3669.

10 Visual acuity requirements

The holder of an NDT authority must at all times when conducting NDT comply with the visual acuity requirements of AS 3669.

11 Renewal of NDT authority

11.1 An NDT authority may be renewed by application on the approved CASA form. In accordance with paragraphs 11.2 and 11.3, the holder must produce evidence to CASA that he or she has maintained proficiency for the relevant NDT method for which the authority was issued, continues to satisfy the applicable visual acuity requirements and has undergone the practical assessment requirements of AS 3669 for reapproval at the specific NDT qualification level.

11.2 Evidence referred to in paragraph 11.1 must be issued in a statement by a responsible level 3 person nominated by the applicant’s employer and must include details of:

(a) the applicant’s practical experience in the relevant NDT method for which the authority was issued; and

(b) relevant NDT training received by the applicant; and

(c) specific examinations (as required under AS 3669) passed by the applicant; and

(d) practical assessments (as required under AS 3669) of the applicant’s work that were carried out.

*Note*To assist the responsible level 3 person’s assessment of proficiency for renewal of an NDT authority, an applicant should keep a record of evidence of their work experience.

11.3 An application for renewal must also be accompanied by the results of the most recent near vision test conducted within the last 12 months, being a test conducted in accordance with AS 3669 and paragraph 6.3 to show that the applicant meets the required standard of visual acuity.

12 Authority to carry out inspection using an NDT method

For subregulation 42ZC (5) of CAR 1988, the holder of a valid airworthiness authority (***AA***) issued under regulation 33B of CAR 1988 to conduct NDT of aircraft and aircraft components is authorised to carry out on an aircraft component or aircraft material, that is covered by the AA, maintenance in the form of an inspection using an NDT method.

*Note*For the exercise of his or her privilege under section 12, the holder of an AA must comply with paragraph 42ZC (5) (a) of CAR 1988 and do so only when he or she is employed by, or working under an arrangement with, the holder of a certificate of approval that covers maintenance in the form of an inspection using an NDT method.