



WELLINGTON NEW ZEALAND

PURSUANT to Section 28 of the Civil Aviation Act 1990

I, JENNIFER MARY SHIPLEY, Minister of Transport,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

This *18* day of *Nov* 1997

by **JENNIFER MARY SHIPLEY**

A handwritten signature in black ink, appearing to read 'Jennifer Mary Shipley', written over a horizontal line.

Minister of Transport

Civil Aviation Rules

Part 145, Amendment 6

Docket Nr. 1259 & 1253

Civil Aviation Rules
Part 145, Amendment 6

RULE OBJECTIVE, EXTENT OF CONSULTATION AND COMMENCEMENT

The objective of Part 145, Amendment 6 is to correct the format and content of existing airworthiness rules as a result of industry consultation and Civil Aviation Authority analysis and to bring into force the necessary changes that result from the coming into force of Parts 21, Amendment 5, 43, Amendment 3, and 148, Amendment 1, of the Civil Aviation Rules. Consultation regarding this amendment was conducted as part of the consultation process under those Parts and the consultation details are contained in the summary of consultation details attached to Part 21, Amendment 5 that was signed by the Minister.

The objective of the general airworthiness amendment, and a petition for rulemaking submitted in accordance with Part 11 in relation to Part 21.

In May 1990 the Air Transport Division of the Ministry of Transport published a notice of intention to carry out a complete review of the aviation regulatory system. As of 1 April 1997 the reviewed rules, the Civil Aviation Rules, came into force. Due to the application of some transitional provisions not all of these new rules were immediately applicable.

Prior to 1 April 1997 the Rules and Standards Group of the Civil Aviation Authority identified a requirement to continue to monitor the effectiveness and adequacy of the regulatory boundary and to amend the rules defining this boundary where necessary.

The general airworthiness amendments were developed by the Rules and Standards Group from comments received since the associated rules came into force, consultation with industry representatives, and a petition for rulemaking submitted in accordance with Part 11. The information received by the Rules and Standards Group culminating in the issue of two Notices of Proposed Rulemaking; NPRM 97-2 under Docket 1259 on 5 March 1997 that addressed the general amendments and NPRM 97-5 under Docket 1253 on 9 July 1997 that addressed the petition for rulemaking.

The publication of these notices was advertised in the daily newspapers in the five main provincial centres on 5 March 1997 and 9 July 1997 respectively. The notice was mailed to interested parties, including overseas Aviation Authorities and organisations, who were considered likely to have an interest in the proposal.

A period of 37 days was allowed for comment on the proposed amendments. Thirty written responses were received in response to this notice. There were 16 specific issues raised but no significant disagreements with the rule. The majority of the changes requested by the commenters were included.

A period of 51 days was allowed for comment on the petition for rulemaking Part 21 proposal. Eight written responses were received in response to this notice. There were no significant disagreements with the rule.

The submissions and verbal comments were considered and the specific issues discussed with the commenters during a series of meetings around New Zealand, where appropriate amending the proposed rules to take account of the comments made.

The rules as amended were then referred to and signed by the Minister of Transport.

Part 145, Amendment 6 comes into force 28 days after its notification in the *Gazette*.

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Part 145 Amendments

Part 145 is revoked and the following new Part 145 inserted:

“Subpart A - General

145.1 Applicability

This Part prescribes rules governing the certification and operation of aircraft maintenance organisations.

145.3 Definitions

[Reserved]

145.5 Requirement for certificate

No person shall exercise the privileges in 145.11 except under the authority of and in accordance with the provisions of a maintenance organisation certificate issued under this Part.

145.7 Application for certificate

Each applicant for the grant of a maintenance organisation certificate shall complete form CAA 24145/01, which shall require—

- (1) the name and address for service in New Zealand of the applicant; and
- (2) such further particulars relating to the applicant as may be required by the Director as indicated on the form—

and submit it to the Director with a payment of the appropriate application fee prescribed by regulations made under the Act.

145.9 Issue of certificate

An applicant is entitled to a maintenance organisation certificate if the Director is satisfied that—

- (1) the applicant meets the requirements of Subpart B; and
- (2) the applicant's senior person or persons required by 145.51(a) are fit and proper persons; and

- (3) the granting of the certificate is not contrary to the interests of aviation safety.

145.11 Privileges of certificate holder

(a) The maintenance organisation certificate specifies one or more of the following maintenance ratings for which the certificate is issued:

- (1) A1 for the maintenance of aircraft with a MCTOW of more than 13 610 kg as defined in the organisation's exposition:
- (2) A2 for the maintenance of aircraft with a MCTOW of more than 5700 kg but not exceeding 13610 kg as defined in the organisation's exposition:
- (3) A3 for the maintenance of aircraft not included in A1 or A2, with a maximum certificated passenger seating configuration, excluding any required crew member seat, of 10 seats or more:
- (4) A4 for the maintenance of aircraft with—
 - (i) a MCTOW of 5700 kg or less; or
 - (ii) a maximum certificated passenger seating configuration, excluding any required crew member seat, of nine seats or less:
- (5) C1 for the maintenance of aircraft engines and propellers as defined in the organisation's exposition:
- (6) C2 for the maintenance of components as defined in the organisation's exposition:
- (7) C3 for the maintenance of aircraft electrical equipment as defined in the organisation's exposition:
- (8) C4 for the maintenance of aircraft instrument equipment as defined in the organisation's exposition:
- (9) C5 for the maintenance of aircraft radio equipment as defined in the organisation's exposition:

(10) P1 for the maintenance of aircraft and components involving processing not otherwise included in one of the above ratings and as defined in the organisation's exposition.

(b) The holder of a maintenance organisation certificate may maintain any aircraft or component for which the holder is certificated.

(c) A certificate holder may certify for release to service any aircraft or component for which the holder is certificated.

145.13 Duration of certificate

(a) A maintenance organisation certificate may be granted or renewed for a period of up to five years.

(b) A maintenance organisation certificate remains in force until it expires or is suspended or revoked by the Director.

(c) The holder of a maintenance organisation certificate that expires or is revoked shall forthwith surrender the certificate to the Director.

(d) The holder of a maintenance organisation certificate that is suspended shall forthwith produce the certificate to the Director for appropriate endorsement.

145.15 Notification of ceasing maintenance

(a) Each holder of a maintenance organisation certificate that ceases to offer maintenance services shall notify the Director in writing within 30 days of the date of cessation.

(b) The notification required by paragraph (a) shall include a request for revocation of the maintenance organisation certificate.

145.17 Renewal of certificate

(a) An application for the renewal of a maintenance organisation certificate shall be made by the holder of a maintenance organisation certificate on form CAA 24145/01.

(b) The application shall be submitted to the Director by the application renewal date specified in the certificate or, if no such date is specified, not less than 30 days before the certificate expires.

Subpart B - Certification Requirements

145.51 Personnel requirements

- (a) Each applicant for the grant of a maintenance organisation certificate shall engage, employ, or contract—
- (1) a senior person identified as the Chief Executive who has the authority within the applicant's organisation to ensure that all activities undertaken by the organisation can be financed and carried out in accordance with the requirements prescribed by this Part; and
 - (2) a senior person or group of senior persons who is or are responsible for ensuring that the applicant's organisation complies with the requirements of this Part. Such nominated person or persons shall be ultimately responsible to the Chief Executive for the following functions:
 - (i) maintenance control:
 - (ii) personnel authorisations:
 - (iii) internal quality assurance; and
 - (3) sufficient personnel to plan, perform, supervise, inspect, and certify the maintenance activities listed in the applicant's exposition.
- (b) The applicant shall—
- (1) establish a procedure to initially assess, and a procedure for maintaining, the competence of those personnel involved in planning, performing, supervising, inspecting, or certifying the maintenance activities performed by the applicant's organisation; and
 - (2) provide those personnel with written evidence of the scope of their authorisation.

145.53 Facility requirements

(a) Each applicant for the grant of a maintenance organisation certificate shall provide facilities appropriate for all maintenance activities performed by the applicant's organisation.

(b) The applicant shall provide—

- (1) office accommodation for the administration of its maintenance activities; and
- (2) maintenance facilities that include—
 - (i) protection from the weather; and
 - (ii) appropriate segregation of specialised work areas to prevent environmental and work area contamination; and
- (3) storage facilities for equipment, tools, parts, and material that include—
 - (i) security for serviceable items; and
 - (ii) segregation of serviceable from unserviceable items; and
 - (iii) controls to prevent deterioration of, and damage to, stored items.

(c) The applicant shall ensure that the environment it provides is appropriate for the tasks to be performed and, in particular, meets any special requirements specified in the applicable airworthiness data.

145.55 Equipment, tools, and material

Each applicant for the grant of a maintenance organisation certificate shall—

- (1) have access to the equipment, tools, and material necessary for all maintenance activities performed by the applicant's organisation; and
- (2) establish a procedure to control the equipment, tools, and material including, at a frequency and to a standard acceptable

to the Director, the calibration of precision tooling and equipment.

145.57

[Reserved]

145.59 Maintenance control procedures

(a) Each applicant for the grant of a maintenance organisation certificate shall hold copies of maintenance procedures manuals, facility manuals, engineering drawings, specifications, technical standards and practices, and any other documentation that is necessary for the provision of the maintenance activities listed in its exposition.

(b) Each applicant for the grant of a maintenance organisation certificate shall establish procedures for—

- (1) the inspection of raw materials, parts, and assemblies purchased or maintained by subsidiary maintenance organisations, including methods to ensure the acceptable quality of parts and assemblies that cannot be completely inspected upon delivery to the organisation; and
- (2) dealing with materials, parts, and assemblies not conforming to the type design or specifications, including the recording of decisions and the disposing of rejected materials, parts, and assemblies; and
- (3) the performance of the maintenance activities listed in the applicant's exposition, including methods to ensure—
 - (i) the use of acceptable maintenance techniques and practices; and
 - (ii) the compliance with contractual maintenance obligations with air transport operators; and
 - (iii) maintenance at locations other than those specified in the applicant's exposition is limited to scheduled maintenance specifically identified in the applicant's exposition or maintenance arising solely from unserviceability of the aircraft; and

- (4) ensuring that each maintenance activity to be performed on behalf of the applicant's organisation by a subcontractor—
 - (i) is identified in the applicant's exposition; and
 - (ii) complies with the systems, procedures, and specifications detailed in the applicant's exposition; and
- (5) the identification, handling, storage, and packing of materials, parts, and assemblies; and
- (6) the certification of any applicable release to service and the maintenance of the list of staff with authority to certify a release to service; and
- (7) the issue of authorised release certificates and the maintenance of the list of staff with authority to certify an authorised release certificates; and
- (8) controlling the documentation required by paragraph (a) to ensure—
 - (i) the documentation is reviewed and authorised by appropriate personnel before issue; and
 - (ii) current issues of relevant documentation are available to personnel at all locations where they need access to such documentation for the provision of the maintenance activities listed in the applicant's exposition; and
 - (iii) obsolete documentation is promptly removed from all points of issue or use; and
 - (iv) changes to documentation are reviewed and authorised by appropriate personnel; and
 - (v) the current version of each item of documentation can be identified to ensure out-of-date documentation is not used; and

- (9) make maintenance information, engineering drawings, technical standards and practices, and inspection records available to the Director, upon the Director's request.

145.60 Authorisation procedures

(a) Each applicant for the grant of a maintenance organisation certificate shall establish procedures for the issue of authorisations that authorise persons to—

- (1) perform and supervise maintenance on the aircraft or components specified in the authorisation; and
- (2) certify the aircraft or components specified in the authorisation for release to service after maintenance has been performed; and
- (3) certify the conformity of major modifications and major repairs to aircraft and components to acceptable technical data.

(b) Except as provided in paragraph (c), the procedures shall ensure that no person is authorised to release an aircraft or component to service after maintenance unless that person is the holder of an aircraft maintenance engineer licence in an appropriate category issued under Part 66, and—

- (1) holds an appropriate rating issued under Part 66; or
- (2) meets a standard at least equal to that required by Part 66, Subpart C for the grant of an aircraft maintenance engineer rating.

(c) The procedures may authorise a person to release a component to service after maintenance if—

- (1) that person has—
 - (i) successfully completed a course of training relevant to the type of components for which the authorisation is sought; or
 - (ii) passed an examination acceptable to the Director; and
- (2) that person has 36 months of practical aviation related experience with the procedures, practices, materials, tools,

machine tools, and equipment generally used in constructing, maintaining, or modifying airframes, powerplants, or avionic equipment; and

- (3) that person has 6 months supervised experience directly applicable to the type of components for which authorisation is sought; and
 - (4) for authorisation to release a component to service after the performance of NDT, that person has passed an applicable examination conducted by the CBIP or other organisation acceptable to the Director; and
 - (5) for authorisation to release a component to service after the performance of welding, that person demonstrates competence in welding to a standard acceptable to the Director.
- (d) The course of training specified in paragraph (c)(1)(i) shall be—
- (1) conducted by the holder of a maintenance organisation certificate issued under Part 145 for the training of that organisation's staff; or
 - (2) conducted by the holder of an aviation training organisation certificate issued under Part 141 that authorises such a course; or
 - (3) conducted by the manufacturer of the applicable component; or
 - (4) approved by the aviation authority of a foreign contracting State.
- (e) The procedures shall ensure that no person is authorised to release an aircraft or component to service after maintenance, unless that person has been examined by the appropriate senior person for—
- (1) familiarity with the maintenance procedures required by 145.59(a); and
 - (2) technical competence in respect of the authorisation to be held.
- (f) The procedures shall ensure that no person is authorised to certify the conformity of major modifications and major repairs to aircraft and components to acceptable technical data unless that person—

- (1) is the holder of the maintenance organisation's authorisation for the aircraft or component to be certified; and
- (2) has completed a course of training relevant to modification and repair conformity; and
- (3) has passed an examination acceptable to the Director.

(g) The procedures shall ensure that an authorised person shall not exercise the privileges of the maintenance organisation's authorisation unless that person satisfies the recent experience requirements prescribed in 66.57 irrespective of whether that person holds an aircraft maintenance engineer licence issued under Part 66.

(h) An authorisation issued to a person who meets the requirements of paragraph (b) or (d) may confer equal or lesser privileges than those conferred by an equivalent rating issued under Part 66, Subpart C.

145.61 Continued airworthiness

(a) Each applicant for the grant of a maintenance organisation certificate shall establish procedures for—

- (1) collecting, investigating, and analysing information relating to defects in the aircraft or component maintained by the applicant and distributing that information to—
 - (i) the applicable design organisation; and
 - (ii) the owner or operator of that aircraft or component; and
- (2) providing defect incident information to the Authority in accordance with Part 12.

(b) Each applicant for the grant of a maintenance organisation certificate shall establish procedures to inform each owner of an aircraft or component that it maintains of the details of the procedures required in paragraph (a).

145.63 Records

(a) Each applicant for the grant of a maintenance organisation certificate shall establish procedures to identify, collect, index, store, maintain, and

dispose of the records that are necessary to ensure that each aircraft or component is fit for release to service.

(b) Each applicant for the grant of a maintenance organisation certificate shall establish procedures to—

- (1) record details of the experience, qualifications, training, and current authorisations of each person who exercises certification privileges on the certificate holder's behalf; and
- (2) record all aircraft and components that are maintained by the holder including a description of the work performed; and
- (3) record the date, and person certifying, that each aircraft or component is released to service; and
- (4) record all calibrations on equipment, tools, and materials specified in 146.55 and the standards used; and
- (5) ensure that—
 - (i) all records are legible and of a permanent nature; and
 - (ii) all records for an aircraft are available to the operator of that aircraft; and
 - (iii) the records required by paragraphs (b)(1) to (4) are retained for a period of two years after the work is released to service; and
- (6) make records required by paragraphs (b)(1) to (4) available to the Director, upon the Director's request.

145.65 Internal quality assurance

- (a) Each applicant for the grant of a maintenance organisation certificate shall establish an internal quality assurance system to ensure compliance with, and the adequacy of, the procedures required by this Part.
- (b) The internal quality assurance system shall include—

- (1) a safety policy and safety policy procedures that are relevant to the applicant's organisational goals and the expectations and needs of its customers; and
 - (2) a procedure to ensure quality indicators, including defect and incident reports, and personnel and customer feedback, are monitored to identify existing problems or potential causes of problems within the system; and
 - (3) a procedure for corrective action to ensure that existing problems that have been identified within the system are corrected; and
 - (4) a procedure for preventive action to ensure that potential causes of problems that have been identified within the system are remedied; and
 - (5) an internal audit programme to audit the applicant's organisation for conformity with its safety policy; and
 - (6) management review procedures to ensure the continuing suitability and effectiveness of the internal quality assurance system in satisfying the requirements of this Part.
- (c) The safety policy procedures shall ensure that the safety policy is understood, implemented, and maintained at all levels of the organisation.
- (d) The procedure for corrective action shall specify how—
- (1) existing problems are corrected; and
 - (2) corrective action is followed up to ensure the action is effective; and
 - (3) any procedure required for this Part is amended as a result of corrective action; and
 - (4) management will review the effectiveness of any corrective action taken.
- (e) The procedure for preventive action shall specify how—

- (1) potential problems are corrected; and
 - (2) preventive action is followed up to ensure the action is effective; and
 - (3) any procedure required for this Part is amended as a result of preventive action; and
 - (4) management will review the effectiveness of any preventive action taken.
- (f) The internal quality audit programme shall—
- (1) specify the frequency and location of the audits taking into account the nature of the activity to be audited; and
 - (2) ensure audits are performed by trained auditing personnel who are independent of those having direct responsibility for the activity being audited; and
 - (3) ensure the results of audits are reported to the personnel responsible for the activity being audited and the manager responsible for internal audits; and
 - (4) require preventive or corrective action to be taken by the personnel responsible for the activity being audited if problems are found by the audit; and
 - (5) ensure follow up audits to review the effectiveness of any preventive or corrective action taken.
- (g) The procedure for management review shall—
- (1) specify the frequency of management reviews of the quality assurance system taking into account the need for the continuing effectiveness of the system; and
 - (2) identify the responsible manager who shall review the quality assurance system; and
 - (3) ensure the results of the review are evaluated and recorded.

(h) The senior person who has the responsibility for internal quality assurance shall have direct access to the Chief Executive on matters affecting safety.

145.67 Maintenance organisation exposition

(a) An applicant for the grant of a maintenance organisation certificate shall provide the Director with an exposition that shall contain—

- (1) a statement signed by the Chief Executive on behalf of the applicant's organisation confirming that the exposition and any included manuals—
 - (i) define the maintenance organisation and demonstrate its means and methods for ensuring ongoing compliance with this Part; and
 - (ii) are required to be complied with by its personnel at all times; and
- (2) the titles and names of the senior person or persons required by 145.51(a)(1) and (2); and
- (3) the duties and responsibilities of the person or persons specified in paragraph (a)(2) including matters for which they have responsibility to deal directly with the Director on behalf of the maintenance organisation; and
- (4) an organisation chart showing lines of responsibility of the senior persons specified in paragraph (a)(2); and
- (5) except as provided in paragraph (b), details of all locations where the applicant conducts maintenance and the facilities at those locations; and
- (6) details of the applicant's staffing structure at each of the locations listed under paragraph (a)(5); and
- (7) a detailed description of the scope of work undertaken by the applicant; and
- (8) details of the applicant's procedures required by—

- (i) 145.51(b) regarding the competence of personnel; and
- (ii) 145.51(b) regarding the on-going training of personnel; and
- (iii) 145.53(b)(3) regarding the provision of satisfactory storage and segregation of parts; and
- (iv) 145.53(c) regarding the provision of satisfactory environmental conditions; and
- (v) 145.55(2) regarding the control and calibration of tools, jigs, maintenance equipment, and test equipment; and
- (vi) 145.59(b)(1) regarding inspections of raw materials, parts, and assemblies; and
- (vii) 145.59(b)(2) regarding non-conforming materials and parts; and
- (viii) 145.59(b)(3) regarding the performance of maintenance; and
- (ix) 145.59(b)(4) regarding the subcontracting of maintenance activities; and
- (x) 145.59(b)(5) regarding the identification, handling, storage, and packing of products; and
- (xi) 145.59(b)(6) regarding the certification of releases to service; and
- (xii) 145.59(b)(7) regarding authorised release certificates; and
- (xiii) 145.59(b)(8) regarding control and distribution of documentation; and
- (xiv) 145.60 regarding the authorisation of personnel; and
- (xv) 145.61 regarding the continued airworthiness of the aircraft and components that it maintains; and

- (xvi) 145.63 regarding the identification, collection, indexing, storage, maintenance, and disposal of records; and
 - (xvii) 145.65 regarding the internal quality assurance of the applicant's organisation; and
- (9) procedures to control, amend and distribute the exposition.
- (b) The applicant's exposition need not contain details of those locations where the applicant conducts maintenance in accordance with procedures required by paragraph 145.59(b)(3)(iii).
- (c) The Director shall not issue the applicant with a maintenance organisation certificate unless the applicant's exposition is acceptable to the Director.

Subpart C - Operating Requirements

145.101 Continued compliance

Each holder of a maintenance organisation certificate shall—

- (1) hold at least one complete and current copy of its exposition at each work location specified in its exposition; and
- (2) comply with all procedures detailed in its exposition; and
- (3) make each applicable part of its exposition available to personnel who require those parts to carry out their duties; and
- (4) continue to meet the standards and comply with the requirements of Subpart B; and
- (5) determine that each aircraft or component released to service by it is in an airworthy condition.

145.103 Privileges and limitations of authorisation holders

(a) A person shall not—

- (1) release an aircraft or component to service after maintenance if that maintenance is required to be performed by an organisation certificated under this Part; or

- (2) certify the conformity of major modifications and major repairs to aircraft and components to acceptable technical data—

unless that person has been authorised in accordance with the certificate holder's exposition.

(b) A person authorised to release an aircraft or component to service after maintenance by the holder of a maintenance organisation certificate is authorised to—

- (1) perform or supervise the maintenance of the aircraft or components specified in the authorisation; and
- (2) release the aircraft or component to service specified in the authorisation, after maintenance has been performed.

(c) A person authorised by an organisation certificated under this Part to release aircraft or components to service after maintenance shall release the aircraft or components to service in accordance with Part 43, Subpart C.

145.105 Changes to certificate holder's organisation

(a) Each holder of a maintenance organisation certificate shall ensure that its exposition is amended so as to remain a current description of the organisation.

(b) The certificate holder shall—

- (1) ensure any amendments to its exposition meets the applicable requirements of this Part; and
- (2) comply with the amendment procedures contained in its exposition.

(c) The certificate holder shall provide the Director with a copy of each amendment to its exposition as soon as practicable after it has incorporated the amendment into the exposition.

(d) Where a certificate holder proposes to make a change to any of the following, prior application to, and acceptance by, the Director is required:

- (1) the Chief Executive:

- (2) the listed senior persons;
 - (3) the maintenance activities the holder undertakes; and
 - (4) the locations at which maintenance is carried out; and
 - (5) the procedure for authorising persons to certify maintenance.
- (e) The Director may prescribe conditions under which a certificate holder may operate during or following any of the changes specified in paragraph (d).
- (f) A certificate holder shall comply with any conditions prescribed under paragraph (e).
- (g) Where any change referred to in this rule requires an amendment to the certificate, the certificate holder shall forward the certificate to the Director as soon as practicable.
- (h) The certificate holder shall make such amendments to its exposition as the Director may consider necessary in the interests of aviation safety.

Appendix A Transitional Arrangements

Each organisation that holds a maintenance organisation certificate on the date Part 145, Amendment 6 comes into effect may continue to operate in accordance with their existing exposition for a period of 12 months. At the expiry of 12 months from the date that Part 145, Amendment 6 comes into effect, those organisations shall ensure their exposition complies with Part 145, Amendment 6.”

