



PURSUANT to Sections 28 and 30 of the Civil Aviation Act 1990

I, HARRY JAMES DUYNHOVEN, Minister for Transport Safety,

HEREBY MAKE the following ordinary rules.

SIGNED AT Wellington

This *22nd* day of *November* 2006

by **HARRY JAMES DUYNHOVEN**


Minister for Transport Safety

Civil Aviation Rules

Part 148, Amendment 2

Aircraft Manufacturing Organisations - Certification

Docket 1/CAR/1357

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Rule objective

The objective of amendment 2 to Part 148 is to amend and update the rules to clarify the privileges of a manufacturing organisation certificate, to include information about priority parts from outside suppliers, to clarify organisation changes that require prior acceptance by the Director, and to delete redundant transitional provisions.

Amendment 2 to Part 148 is associated with the following amendments to other Parts:

- Amendment 7 to Part 21
- Amendment 1 to Part 26
- Amendment 1 to Part 39
- Amendment 1 to Part 146

Extent of consultation

In 1999 the Civil Aviation Industry Rules Advisory Group (CIRAG) Executive established a Technical Study Group (TSG) to participate in a rule making project to amend and update various rules relating to the airworthiness and maintenance requirements for aircraft. A number of the issues to be addressed arose from an investigation carried out by the CAA in 1997 into the concerns about maintenance standards and practices for aircraft less than 5,700 kg maximum certified take-off weight (MCTOW). Other issues to be addressed arose from various petitions for amendments to be made to airworthiness and maintenance rules.

The TSG was made up of representatives from general aviation (fixed wing operators), aircraft maintenance organisations, helicopter operators, and the Aircraft Owners and Pilots Association. The TSG met 4 times and concluded its work in early 2002. The CAA continued to refine the draft rule proposals during 2002 and 2003 and released the draft rules to a representative industry group for comment before they were published for public consultation.

A Notice of Proposed Rulemaking, NPRM 05-05, containing the proposed rule amendments to Parts 21, 26, 39, 146, and 148 was issued for public consultation under Docket 1/CAR/1357 on 5 May 2005.

Two other associated Notices of Proposed Rulemaking, NPRM 05-04 dealing with amendments to Parts 1, 43, 91, and 145, and NPRM 05-06 dealing with amendments to Parts 119, 103, 104, 121, 125, 135, and 137, were also issued for public consultation under Docket 1/CAR/1357 on 5 May 2005.

The publication of these NPRMs was notified in the Gazette on 5 May 2005 and advertised in the daily newspapers in the 5 main provincial centres on 7 May 2005. These NPRMs were published on the CAA web site and mailed to identified stakeholders including representative organisations who were considered likely to have an interest in the proposal.

A period of 46 days was initially allowed for comment on the proposed amendments to the rules and this was extended upon industry request for a further 10 days.

New Zealand Transport Strategy

The development of the NPRM and the proposed rule changes took into account the objectives of the New Zealand Transport Strategy (NZTS) and the provisions of the Civil Aviation Amendment Act (No 2) 2004.

Amendment 2 to Part 148 has been assessed as follows against the NZTS:

Assisting Economic Development— the rule amendment is unlikely to affect economic development:

Assisting safety and personal security— the rule amendment is unlikely to affect safety and personal security issues:

Improving access and mobility—the rule amendment is unlikely to affect access and mobility issues:

Protecting and promoting public health— the rule amendment is unlikely to affect public health:

Ensuring environmental sustainability—the rule amendment is unlikely to affect environmental sustainability.

Summary of submissions

Eighty written submissions were received on the 3 NPRMs. None of the submissions related to the proposed changes to Part 148.

The rule was then referred to Parliament’s Regulations Review Committee before being signed by the Minister for Transport Safety.

As a consequence of the Regulations Review Committee comments about a potential duplication of the Director’s discretion under section 9 of the Act in the proposed amendments to rules 119.81(b) and 119.125(b) in amendment 7 to Part 119, rule 148.67(b) has been amended to be consistent with the changes made to the rules in Part 119.

Examination of submissions

Submissions may be examined by application to the Docket Clerk at the Civil Aviation Authority between 8:30 am and 4:30 pm on weekdays, except statutory holidays.

Insertion of Amendments

The amendments to the rules in this Part are reflected by the revocation of some existing rules and replacing them with new rules and the revocation of an existing appendix.

Effective date of rule

Amendment 2 to Part 148 comes into force on 1 March 2007.

Availability of rules

Civil Aviation Rules are available from—

CAA web site: <http://www.caa.govt.nz/>

Freephone: 0800 GET RULES (0800 438 785)

Part 148 Amendments

Subpart A — General

Rule 148.1 is revoked and replaced by the following new rule:

148.1 Purpose

This Part prescribes rules governing the certification and operation of an organisation manufacturing aircraft, products, components, parts, and materials.

Rule 148.3 is revoked and replaced by the following new rule:

148.3 Definitions

Definitions relating to this Part are contained in Part 1.

Rule 148.9 is revoked and replaced by the following new rule:

148.9 Issue of certificate

The Director must, in accordance with section 9 of the Act, grant a manufacturing organisation certificate to an applicant if the Director is satisfied that—

- (1) the applicant meets the requirements of Subpart B; and
- (2) the applicant and the senior person or senior persons required under rule 148.51(a) are fit and proper persons; and
- (3) the granting of the certificate is not contrary to the interests of aviation safety.

Rule 148.11 is revoked and replaced by the following new rule:

148.11 Privileges of certificate holder

(a) A manufacturing organisation certificate specifies 1 or more of the following manufacturing ratings for which the certificate is issued:

- (1) M1 for the manufacture of aircraft, aircraft engines, or propellers, as detailed in the organisation's exposition:

- (2) M2 for the manufacture of components for aircraft, aircraft engines, or propellers, as detailed in the organisation's exposition:
 - (3) M3 for the manufacture of parts or appliances, as detailed in the organisation's exposition:
 - (4) M4 for the manufacture of materials as detailed in the organisation's exposition.
- (b) A holder of a manufacturing organisation certificate may manufacture any item in accordance with the scope of the manufacturing rating specified in the certificate.
- (c) A holder of a manufacturing organisation certificate may issue a *CAA Form One – authorised release certificate* for a manufactured item indicating that the item conforms to the type design for the item and is in a condition for safe operation.

Rule 148.15 is revoked and replaced by the following new rule:

148.15 Notification of ceasing manufacturing

- (a) A holder of a manufacturing organisation certificate who ceases to exercise the privileges of the certificate must notify the Director in writing within 30 days of the date of cessation.
- (b) The notification must include a request for the manufacturing organisation certificate to be revoked.

Subpart B — Certification requirements

Rule 148.53 is revoked and replaced by the following new rule:

148.53 Facility requirements

- (a) An applicant for the grant of a manufacturing organisation certificate must provide facilities that are appropriate to the manufacturing activity performed by the applicant's organisation.
- (b) The facilities required under paragraph (a) must include the following:

- (1) office accommodation for the administration of the organisation's manufacturing activities:
- (2) manufacturing facilities that include—
 - (i) if applicable, protection from the elements of the weather; and
 - (ii) appropriate segregation of specialised work areas to prevent environmental and work area contamination:
- (3) storage facilities for manufactured items, equipment, and tools that include—
 - (i) security for serviceable items; and
 - (ii) segregation of serviceable items from unserviceable items; and
 - (iii) controls to prevent deterioration of, and damage to, stored items:
- (4) environmental conditions that are appropriate for the tasks to be performed and, in particular, that meet any special environmental requirement specified in the process specification that is applicable to the task.

Rule 148.57 is revoked and replaced by the following new rule:

148.57 Type certificates and design approvals

- (a) An applicant for the grant of a manufacturing organisation certificate must, for each product to be manufactured,—
- (1) hold, or have applied for, a type certificate issued in accordance with Part 21, Subpart B for the product; or
 - (2) hold, or have applied for, a supplemental type certificate issued in accordance with Part 21, Subpart E for the product; or
 - (3) have an arrangement acceptable to the Director, with the holder of, or applicant for—

- (i) a type certificate for the product issued in accordance with Part 21, Subpart B; or
 - (ii) a supplemental type certificate for the product issued in accordance with Part 21, Subpart E.
- (b) An applicant for the grant of a manufacturing organisation certificate must, for each item to be manufactured that is not a product,—
- (1) hold, or have applied for, a design approval for the item; or
 - (2) have an arrangement acceptable to the Director, with the holder of, or applicant for, a design approval for the item.

Rule 148.59 is revoked and replaced by the following new rule:

148.59 Production control procedures

- (a) An applicant for the grant of a manufacturing organisation certificate must hold a copy of manufacturing procedures manuals, facility manuals, engineering drawings, specifications, technical standards and practices, and any other documentation that is necessary for the provision of the manufacturing activities detailed in the applicant's exposition.
- (b) An applicant for the grant of a manufacturing organisation certificate must establish procedures for—
- (1) the inspection of a raw material, part, and assembly, purchased or produced by a subsidiary manufacturer, including methods to ensure the acceptable quality of a part or assembly that cannot be completely inspected upon delivery to the organisation; and
 - (2) the inspection of an individual part and a complete assembly during manufacture, including the identification of any special manufacturing process involved, and the means used to control the process; and
 - (3) ensuring that each manufacturing 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
- (4) dealing with a material, part, or assembly not conforming to the type design or specification, including the recording of a decision and the disposing of a rejected material, part, and assembly; and
- (5) the final test of complete manufactured items including—
- (i) for an aircraft, the production flight test procedures and check list; and
 - (ii) for an engines, the engine test cell procedures and check list; and
 - (iii) for a controllable propeller, the propeller functional test procedures; and
- (6) the identification, handling, storage, and packing of complete manufactured items; and
- (7) the issue of *CAA Form One – authorised release certificate* and statements of compliance for manufactured items; and
- (8) the maintenance of a list of staff who are authorised to issue a *CAA Form One – authorised release certificate* or a statement of compliance; and
- (9) controlling the documentation required by paragraph (a) to ensure that—
- (i) the documentation is reviewed and authorised by appropriate personnel before issue; and
 - (ii) a current issue of relevant documentation is available to personnel at every location where they need access to the documentation for the provision of the

- manufacturing activities detailed in the applicant's exposition; and
- (iii) obsolete documentation is promptly removed from every point of issue or use; and
 - (iv) a change to the documentation is reviewed and authorised by appropriate personnel; and
 - (v) the current version of each item of documentation can be identified to ensure that out-of-date documentation is not used; and
- (10) manufacturing information, engineering drawings, test reports, and inspection records to be made available to the Director upon request.

Rule 148.61 is revoked and replaced by the following new rule:

148.61 Continued airworthiness

(a) An applicant for the grant of a manufacturing organisation certificate must establish procedures for—

- (1) collecting, investigating, and analysing information relating to a defect in an item manufactured by the applicant's organisation and for distributing the information to—
 - (i) every purchaser of an item manufactured to the same design as that item; and
 - (ii) the applicable type certificate holder; and
- (2) providing defect incident information to the Authority in accordance with Part 12.

(b) An applicant for the grant of a manufacturing organisation certificate must establish procedures in addition to the procedures required in paragraph (a) for any type certificated product that it manufactures to—

- (1) assist the type certificate holder with any continuing airworthiness action that is related to the manufacture of the product; and
- (2) provide at least 1 set of instructions for continued airworthiness, prepared in accordance with the applicable airworthiness design standards specified in Appendix C of Part 21 to each purchaser of the product upon its delivery; and
- (3) make the instructions for continued airworthiness required in paragraph (b)(2), and any changes to those instructions, available to any other person who is required by a rule to comply with those instructions; and
- (4) inform each owner of a product of the same type of the details of the procedures required in paragraph (a), for the collection of information of any defect relating to the product.

Rule 148.63 is revoked and replaced by the following new rule:

148.63 Records

- (a) An applicant for the grant of a manufacturing organisation certificate must establish procedures to identify, collect, index, store, maintain, and dispose of the records that are necessary to ensure that every item the organisation manufactures conforms to the applicable design data and is in a condition for safe operation.
- (b) An applicant for the grant of a manufacturing organisation certificate must 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 every item that is manufactured by the certificate holder's organisation including a description of the work performed; and

- (3) record the date, and person certifying, that each item conforms to the applicable design data and is in a condition for safe operation; and
 - (4) record every calibration on equipment and tools as required under rule 148.55, including the standards used for the calibrations; and
 - (5) ensure that—
 - (i) each record is accurate, legible and of a permanent nature; and
 - (ii) except as provided in paragraph (c), the records required by paragraphs (b)(1) to (4) are retained for a period of 2 years from the date the last example of the item type is permanently withdrawn from service; and
 - (6) make records required by paragraphs (b)(1) to (4) available to the Director upon request.
- (c) The Director may permit records to be retained for a shorter period than that required by paragraph (b)(5)(ii).

Rule 148.67 is revoked and replaced by the following new rule:

148.67 Manufacturing organisation exposition

- (a) An applicant for the grant of a manufacturing organisation certificate must provide the Director with an exposition that contains—
- (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 manufacturing organisation and demonstrate the organisation's means and methods for ensuring ongoing compliance with this Part; and
 - (ii) are required to be complied with by the organisation's personnel; and

- (2) the titles and names of the senior person or persons required by rule 148.51(a)(1) and (2); and
- (3) the duties and responsibilities of the senior person or persons required to be named under paragraph (a)(2), including matters for which they have the responsibility to deal directly with the Director on behalf of the applicant's organisation; and
- (4) an organisation chart showing lines of responsibility of the senior persons required to be named under paragraph (a)(2); and
- (5) details of every location where the applicant's organisation carries out manufacturing activities and the facilities at those locations; and
- (6) details of the applicant's organisation staffing structure at each of the locations required to be detailed under paragraph (a)(5); and
- (7) a detailed description of the scope of work undertaken by the applicant's organisation; and
- (8) details of the applicant's facilities required by—
 - (i) rule 148.53(b)(3) regarding the provision of satisfactory storage and segregation of parts; and
 - (ii) rule 148.53(b)(4) regarding the provision of appropriate environmental conditions; and
- (9) a list of every priority part manufactured or supplied by external subcontractors or suppliers; and
- (10) evidence that the applicant's organisation holds or has applied for a type certificate or supplemental type certificate or has entered into an arrangement, as required by rule 148.57; and
- (11) details of any authorisations made by the applicant's organisation to subsidiary manufacturers; and

- (12) details of the applicant's procedures required by—
- (i) rule 148.51(b) regarding the competence assessment of personnel; and
 - (ii) rule 148.51(b) regarding the maintenance of personnel competence; and
 - (iii) rule 148.55(2) regarding the control and calibration of tools, jigs, process equipment, and test equipment; and
 - (iv) rule 148.59(b)(1) regarding an inspection of a raw material, parts, and assemblies; and
 - (v) rule 148.59(b)(2) regarding inspection of an individual part and complete assembly during manufacture; and
 - (vi) rule 148.59(b)(3) regarding the subcontracting of manufacturing activities; and
 - (vii) rule 148.59(b)(4) regarding a non-conforming material and part; and
 - (viii) rule 148.59(b)(5) regarding a final test including, if applicable, the procedures required for the application of a special flight permit with a continuing authorisation granted under rule 21.197; and
 - (ix) rule 148.59(b)(6) regarding the identification, handling, storage, and packing of an item that it manufactures; and
 - (x) rule 148.59(b)(7) and (8) regarding the issue of CAA *Form One* and a statement of compliance; and
 - (xi) rule 148.59(b)(9) regarding control and distribution of documentation; and
 - (xii) rule 148.61(b) regarding the continued airworthiness of the items that it manufactures; and

- (xiii) rule 148.63 regarding the identification, collection, indexing, storage, maintenance, and disposal of a record; and
 - (xiv) rule 148.65 regarding the internal quality assurance of the applicant's organisation; and
- (13) procedures to control, amend, and distribute the exposition.
- (b) The exposition must remain acceptable to the Director.

Subpart C — Operating Requirements

Rule 148.101 is revoked and replaced by the following new rule:

148.101 Continued compliance

A holder of a manufacturing organisation certificate must—

- (1) hold at least 1 complete and current copy of the organisation's exposition at each work location listed in the exposition; and
- (2) comply with every procedure and system detailed in the exposition; and
- (3) make each applicable part of the 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 prescribed in Subpart B for certification under this Part; and
- (5) determine that each item released by it conforms to the applicable design data, has no unsafe features, and is in a condition for safe operation.

Rule 148.103 is revoked and replaced by the following new rule:

148.103 Identification of manufactured items

A holder of a manufacturing organisation certificate must identify each item that the manufacturing organisation manufactures, in accordance with the requirements of Subpart Q of Part 21.

Rule 148.105 is revoked and replaced by the following new rule:

148.105 Changes to certificate holder's organisation

(a) A holder of a manufacturing organisation certificate must ensure that the exposition for the holder's organisation is amended to reflect a current description of the organisation.

(b) The certificate holder must —

- (1) ensure that any amendment to the exposition for the holder's organisation meets the applicable requirements of this Part; and
- (2) comply with the amendment procedures contained in the exposition.

(c) Subject to paragraph (d), the certificate holder must provide the Director with a copy of each amendment to the exposition for the holder's organisation as soon as practicable after the amendment is incorporated into the exposition.

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

- (1) the chief executive;
- (2) the listed senior persons;
- (3) the manufacturing ratings;
- (4) the supply arrangements for priority parts;
- (5) the procedures for changing the scope within a rating;
- (6) the final testing activities for which the holder utilises a special flight permit with a continuing authorisation:

(7) the locations at which the manufacturing activities are carried out.

(e) The Director may specify conditions under which a certificate holder may operate during or following any of the changes specified in paragraph (d), to ensure continued compliance with the requirements of this Part.

(f) A certificate holder must comply with the conditions specified by the Director under paragraph (e).

(g) If any change referred to in this rule requires an amendment to the manufacturing organisation certificate, the certificate holder must forward the certificate to the Director immediately for endorsement.

(h) The certificate holder must make such amendments to the exposition for the holder's organisation as the Director may consider necessary in the interests of aviation safety.

Appendix A is revoked and replaced by the following new Appendix A:

Appendix A — Transitional Arrangements

A holder of a Manufacturing Organisation Certificate that is in force on 1 March 2007 does not need to comply with rule 148.67(8) and (9) until 1 March 2008.

Appendix B — Transitional Arrangements is revoked.

Consultation Details

(This statement does not form part of the rules contained in Part 148. It provides details of the consultation undertaken in making the rules.)

A review of the continuing airworthiness and maintenance requirements for New Zealand aircraft has been under development since 1998 following a review of the state of aircraft maintenance that was carried out in 1997. The changes to Part 43 are the central part of a package of changes that update rules relating to the maintenance of aircraft. The package was developed under docket 1/CAR/1357 and published in May 2005 as 3 separate Notices of Proposed Rule Making, NPRM 05-04 dealing with Part 43 and related rule Parts 91, and 145, NPRM 05-05 dealing with Part 21 and related Parts 26, 39, 146, and 148, and NPRM 05-06 dealing with Part 119 and related Parts 103, 104, 121, 125, 135, and 137. The changes to the various rules are based on the 1997 review of aircraft maintenance and proposals arising from a CAA-Industry Technical Study Group set up in 1999.

The 3 Notices of Proposed Rulemaking, NPRM 05-04 Part 43 General Maintenance Rules, NPRM 05-05 Part 21 Certification of Products and Parts, and NPRM 05-06 Part 119 Air Operator – Certification, containing the proposed rules were issued for public consultation under Docket 1/CAR/1357 on 5 May 2005.

Comments arising from the NPRM

A total of eighty written submissions were received on the three NPRMs, mostly in relation to the Part 43 and 91 changes. The CAA has worked through these submissions and as a result has amended the rules where appropriate. None of the submissions related to Part 148.

The structure of some rules has been amended and editorial changes have been made to provide clarity and, in some cases, to maintain consistency in the terminology used.

The consultation details relating to amendment 2 to Part 148 are contained in the consultation details of amendment 5 to Part 43. The submissions and all background material used in developing the rules are held on the docket file and are available for public inspection at Aviation House, 10 Hutt Road, Petone. Persons wishing to view the

docket should contact the Docket Clerk on Phone +64 560 9603 and ask for docket 1/CAR/1357.