



REGULATIONS OF THE ADMINISTRATOR

Federal Aviation Agency - Washington, D.C.

Part 514

TECHNICAL STANDARD ORDERS FOR AIRCRAFT MATERIALS, PARTS AND APPLIANCES

(Effective July 1, 1962)

SUBCHAPTER C—AIRCRAFT REGULATIONS

[Reg. Docket No. 771, Amdt. 54]

A proposal to amend Subpart A of Part 514 of the regulations of the Administrator was published on June 13, 1961, 26 F.R. 5270. Interested persons were invited to submit comments and due consideration has been given to all comments received.

As a result of the comments received, several changes, generally of a clarifying or explanatory nature have been made. For example, the definition of "Manufacturer" has been revised from that proposed to make it clear that the manufacturer does not necessarily have to produce the component parts of the article which he certifies under the TSO system, and a footnote has been added to indicate that articles may also be approved in conjunction with the type certification procedures for an aircraft, engine, or propeller. An explanation of performance standards, as used in this regulation, has been added.

A comment has been received which indicates the need for clarification as to the applicability of certain provisions of the proposed regulation to manufacturers of articles currently being identified with the TSO markings under the provisions of Part 514. Manufacturers who have been authorized to manufacture and to identify their articles under an FAA letter of acceptance of their statement of conformance are holders of an authorization issued pursuant to the provisions of Part 514. It is not intended nor is it necessary, that such manufacturers requalify by reapplication under this revised regulation in order to continue manufacturing such articles. The regulation has been revised to expressly state that such manufacturers may continue to manufacture articles in accordance with the terms of their present authorization and need not reapply for such authorization. However, as the proposal indicated, such manufacturers are subject to the provision permitting authorized representatives of the FAA to inspect their articles and manufacturing

facilities and to examine their technical data files. Thus, their continuing capability to manufacture TSO articles may be determined by the FAA at any time.

The requirement for retention of data and records has been revised from that proposed to make it clear that such data and records need be retained only for articles which are manufactured on and after July 1, 1962, the effective date of this amendment. This requirement has also been relaxed to the extent that inspection and test records must be retained for only two years. Furthermore, only copies rather than the original technical data file need be transferred to the FAA for record purposes when the manufacturer terminates his business or no longer operates under the TSO system.

In response to comment received a provision has been added establishing a procedure under which the applicant will be issued an authorization, or notified of the denial of his application within 30 days from the date of its receipt. In the event that additional information is requested by the FAA to process the application, the 30 days will be computed from the date of receipt of such information. In order to expedite the application procedures, applications will be made directly to the FAA Engineering and Manufacturing Branch of the Region in which the applicant is located instead of to the Washington Office.

Finally, a provision has been included in this regulation which permits a manufacturer to refer in his application to qualify control data previously submitted to the FAA.

There were objections to what appeared to be a reversal of the policy of delegating responsibility to the industry under the TSO system. Under the TSO system a manufacturer submitting a statement of conformance is responsible for conducting

compliance tests and for maintaining quality control to assure that the articles which he certifies meet the standards of a TSO do, in fact, meet these standards. Under this amendment this responsibility will continue, but procedures are also established to provide the FAA with assurance that persons given such responsibility have at all times the necessary facilities, inspection organization and ability to produce the articles in conformance with the approved standards. To provide uniformity and eliminate unnecessary repetition these requirements are set forth in the general provisions of Subpart A rather than in the individual TSO's.

The manual material under §§ 3.18, 4b.18, and 6.18 of the Civil Air Regulations is being amended under appropriate rule making procedures to bring such material in conformance with the provisions of this part.

In consideration of the foregoing and pursuant to the authority delegated to me by the Administrator (25 F.R. 6489), Subpart A of Part 514 of the regulations of the Administrator (14 CFR Part 514) is hereby revised as follows, effective July 1, 1962:

SUBPART A—GENERAL

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AUTHORITY: §§ 514.0 to 514.10 issued under secs. 313(a), 601; 72 Stat. 752, 775; 49 U. S. C. 1354(a), 1421.

SUBPART A—GENERAL

§ 514.0 Definition of terms.

As used in this part:

(a) "Administrator" means the Administrator of the Federal Aviation Agency or any person to whom he has delegated his authority in the matter concerned.

(b) "FAA" means Federal Aviation Agency.

¹Articles may also be approved and manufactured for use on civil aircraft as a part of the type design of a type certificate for an aircraft engine or propeller.

(c) "Manufacturer" means a person who controls the design and quality of an article produced under the TSO system, including all parts thereof and processes and services related thereto obtained from outside sources.

(d) "Article" means the materials, parts, or appliances for which approval is required under the Civil Air Regulations for use on civil aircraft.

§ 514.1 Basis and purpose.

(a) *Basis.* Section 601 of the Federal Aviation Act of 1958, and §§ 3.18, 4a.31, 4b.18, 5.18, 6.18, 7.18, 10.21, 13.18, and 14.18 of this title (Civil Air Regulations).

(b) *Purpose.* (1) This part prescribes in individual Technical Standard Orders the minimum performance and quality control standards for FAA approval of specified articles used on civil aircraft, and prescribes the methods by which the manufacturer of such articles shall show compliance with such standards in order to obtain authorization for the use of the articles on civil aircraft.

(2) The performance standards set forth in the individual Technical Standard Orders are those standards found necessary by the Administrator to assure that the particular article when used on civil aircraft will operate satisfactorily, or accomplish satisfactorily its intended purpose under specified conditions.

§ 514.2 TSO authorization.

(a) *Privileges.* No person shall identify an article with a TSO marking unless he holds a TSO authorization and the article meets and the applicable TSO standards prescribed in this part.

(b) *Letters of acceptance issued prior to July 1, 1962.* An FAA letter of acceptance of a statement of conformance issued for an article prior to July 1, 1962, is an authorization within the meaning of this part and the holder thereof may continue to manufacture such article without obtaining an additional TSO authorization, but shall comply with the requirements of §§ 514.3 through 514.10.

(c) *Application.* The manufacturer or his duly authorized representative shall submit an application for a TSO authorization together with the following documents (See Appendix A of this subpart for sample application) to the Chief, Engineering and

Manufacturing Branch, Flight Standards Division, in the region in which the manufacturer is located:²

(1) A statement of conformance certifying that the applicant has complied with the provisions of Subpart A and the article meets the applicable performance standards established in Subpart B of this part (See Appendix B of this subpart for sample statement of conformance);

(2) Copies of the technical data required in the performance standards set forth in Subpart B of this part for the particular article;

(3) A description of his quality control system in the detail specified in § 1.36 of this title (Civil Air Regulations). In complying with this provision the manufacturer may refer to current quality control data filed with the Agency, as a part of a previous application.

Note: When a series of minor changes in accordance with § 514.5 is anticipated, the manufacturer may set forth in his application the basic model numbered article with open brackets after it to denote that suffix change letters will be added from time-to-time, e.g., Model No. 100 ().

(d) *Issuance.* (1) Upon receipt of the application and adequate supporting documents specified in paragraph (c) of this section to substantiate the manufacturer's statement of conformance with the requirements of this part and his ability to produce duplicate articles in accordance with the provisions of this part, the applicant will be given an authorization to identify his article with the applicable TSO marking.

(2) If the application is deficient in respect to any requirements, the applicant shall, upon request by the Chief, Engineering and Manufacturing Branch, submit such additional information as may be necessary to show compliance with such requirements. Upon the failure of the applicant to submit such additional information within 30 days after the date of the request therefor, his application will be denied and he will be so notified by the Chief, Engineering and Manufacturing Branch.

Note: The applicant will be issued an authorization or notified of the denial of his application within 30 days after the date of receipt of such application or, in the event that additional information has been requested, within 30 days after the date of receipt of such additional information.

§ 514.3 Conditions on authorizations.

The manufacturer of an article under an authorization issued under the provisions of this part shall —

(a) Manufacture such article in accordance with the requirements of Subpart A and the performance standards contained in the applicable TSO of Subpart B of this part;

(b) Conduct the required tests and inspections, and establish and maintain a quality control system adequate to assure that such article, as manufactured, meets the requirements of paragraph (a) of this section and is in a condition for safe operation;

(c) Prepare and maintain for each type or model of such article a current file of complete technical data and records in accordance with § 514.6; and

(d) Permanently and legibly mark each such article with the following information:

(1) Name and address of the manufacturer,

(2) Equipment name, or type or model designation,

(3) Weight to the nearest tenth of a pound,

(4) Serial number and/or date of manufacturer, and

(5) Applicable Technical Standard Order (TSO) number.

§ 514.4 Deviations.

Approval for a deviation from the performance standards established in Subpart B may be obtained only if the standard or standards for which deviation is requested are compensated for by factors or design features which provide an equivalent level of safety. A request for such approval together with the pertinent data shall be submitted by the manufacturer to the Chief, Engineering and Manufacturing Branch of the Region in which the applicant is located.

§ 514.5 Design changes.

(a) *By Manufacturer-*(1) *Minor changes.* The manufacturer of an article under an authorization issued pursuant to the provisions of this part may make minor design changes to the article without further approval by the FAA. In such case the changed article shall retain the original model number and the manufacturer shall forward to the Chief, Engineering and Manufacturing Branch such revised data as may be necessary for compliance with § 514.2 (c).

²Regional Offices are located at New York, Atlanta, Kansas City, Fort Worth, Los Angeles, Anchorage.

(2) *Major changes.* If the changes to the article are so extensive as to require a substantially complete investigation to determine compliance with the performance standards established in Subpart B, the manufacturer shall assign a new type or model designation to the article and submit a new application in accordance with the provisions of § 514.2(c).

(b) *By persons other than the manufacturer.* Design changes to an article by a person other than the manufacturer who submitted the statement of conformance for such article are not eligible for approval under this part, unless such person is a manufacturer as defined in § 514.0 and applies for authorization under § 514.2(c).

Note: Persons other than a manufacturer may obtain approval for design changes to a product manufactured under a TSO pursuant to the provisions of Part 18 or the applicable airworthiness regulations.

§ 514.6 Retention of data and records.

(a) A manufacturer holding an authorization issued pursuant to the provisions of this part shall, for all articles manufactured under such authorization on and after July 1, 1962, maintain and keep at his factory.

(1) A complete and current technical data file for each type or model of article which shall include the design drawings and specifications. This technical data shall be retained for the duration of his operation under the provisions of this part.

(2) Complete and current inspection records to show that all inspections and tests required to ensure compliance with this part have been properly accomplished and documented. These records shall be retained for at least two years.

(b) The data specified in paragraph (a)(1) of this section shall be identified and copies transferred to the FAA for record purposes in the event the manufacturer terminates his business or no longer operates under the provisions of this part.

§ 514.7 Inspection and examination of data, articles or manufacturing facilities.

The manufacturer shall, upon request, permit an authorized representative of the FAA to inspect any article manufactured pursuant to this part, and to observe the quality control inspections and tests and examine the manufacturing facilities and technical data files for such article.

§ 514.8 Service difficulties. Whenever the investigation of an accident or a service difficulty report shows an unsafe feature or characteristic

caused by a defect in design or manufacture of an article, the manufacturer shall upon the request of the Chief, Engineering and Manufacturing Branch, report the results of his investigation and the action, if any, taken or proposed by him to correct the defect in design or manufacture (e.g., service bulletin, design changes, etc.). If the defect requires a design change or other action to correct the unsafe feature or characteristic, the manufacturer shall submit to the Chief, Engineering and Manufacturing Branch, the data necessary for the issuance of an airworthiness directive containing the appropriate corrective action.

§ 514.9 Noncompliance.

Whenever the Administrator finds that a manufacturer holding an authorization issued pursuant to the provisions of this part has identified an article by a TSO marking and that such article does not meet the applicable performance standards of this part, the Administrator may, upon notice thereof to the manufacturer, withdraw the manufacturer's authorization and, where necessary, prohibit any further certification or operation of a civil aircraft upon which such article is installed until appropriate corrective action is taken.

§ 514.10 Transferability and duration.

An authorization issued pursuant to the provisions of this part shall not be transferred and is effective until surrendered, or withdrawn, or otherwise terminated by the Administrator.

(Secs. 313(a), 601; 72 Stat. 752, 775; 49 U.S.C. 1354(a), 1421)

Issued in Washington, D.C., on January 29, 1962

G. S. Moore,
Acting Director,
Flight Standards Service

Appendix A

**SAMPLE APPLICATION FOR TSO
AUTHORIZATION**

(Date)

Addressed to: Chief, Engineering and
Manufacturing Branch, Federal Aviation Agency,
Region).

Application is hereby made for authorization to
use the Technical Standard Order procedures.

Enclosed is a statement of conformance for the
article to be produced under TSO-C-----.

The required quality control data ¹ are transmitted:
(herewith) (under separate cover).

Signed-----

APPENDIX B

SAMPLE STATEMENT OF CONFORMANCE

(Date)

(Addressed to: Chief, Engineering and
Manufacturing Branch, Flight Standards Division,
Federal Aviation Agency).

The undersigned hereby certifies that the article
listed below by model, type or part number has been
tested and meets the performance standards of

Technical Standard Order C----- . In addition, all
other applicable provisions of Part 514 of the
Regulations of the Administrator have been met.

The technical data required by the TSO in the
quantity specified are transmitted: (herewith) (under
separate cover).

Authorization to use TSO identification on this
article is requested.

Signed-----

[F.R. Doc. 62-1080; Filed, Feb. 1, 1962; 8:45 a.m.]

27 FED. REG. 974

¹Reference may be made to data already
on file with the FAA.