SUBCHAPTER C—AIRCRAFT

PART 21—CERTIFICATION PROCEDURES FOR PRODUCTS AND PARTS

Subpart O—Technical Standard Order Authorizations

AUTHORITY: 42 U.S.C. 7572; 49 U.S.C. 106(g), 40105, 40113, 44701–44702, 44707, 44709, 44711, 44713, 44715, 45303.

EDITORIAL NOTE: For miscellaneous amendments to cross references in this Part 21 see Amdt. 21–10, 31 FR 9211, July 6, 1966.

SPECIAL FEDERAL AVIATION REGULATION NO. 88—FUEL TANK SYSTEM FAULT TOLERANCE EVALUATION REQUIREMENTS

1. *Applicability*. This SFAR applies to the holders of type certificates, and supplemental type certificates that may affect the airplane fuel tank system, for turbine-powered transport category airplanes, provided the type certificate was issued after January 1, 1958, and the airplane has either a maximum type certificated passenger capacity of 30 or more, or a maximum type certificated payload capacity of 7,500 pounds or more. This SFAR also applies to applicants for type certificates, amendments to a type certificate, and supplemental type certificates affecting the fuel tank systems for those airplanes identified above, if the application was filed before June 6, 2001, the effective date of this SFAR, and the certificate was not issued before June 6, 2001.

2. *Compliance:* Each type certificate holder, and each supplemental type certificate holder of a modification affecting the airplane fuel tank system, must accomplish the following within the compliance times specified in paragraph (e) of this section:

(a) Conduct a safety review of the airplane fuel tank system to determine that the design meets the requirements of §§25.901 and 25.981(a) and (b) of this chapter. If the current design does not meet these requirements, develop all design changes to the fuel tank system that are necessary to meet these requirements. The FAA (Aircraft Certification Office (ACO), or office of the Transport Airplane Directorate, having cognizance over the type certificate for the affected airplane) may grant an extension of the 18-month compliance time for development of design changes if:

(1) The safety review is completed within the compliance time;

(2) Necessary design changes are identified within the compliance time; and

(3) Additional time can be justified, based on the holder's demonstrated aggressiveness in performing the safety review, the complexity of the necessary design changes, the availability of interim actions to provide an acceptable level of safety, and the resulting level of safety.

(b) Develop all maintenance and inspection instructions necessary to maintain the design features required to preclude the existence or development of an ignition source within the fuel tank system of the airplane.

(c) Submit a report for approval to the FAA Aircraft Certification Office (ACO), or office of the Transport Airplane Directorate, having cognizance over the type certificate for the affected airplane, that:

(1) Provides substantiation that the airplane fuel tank system design, including all necessary design changes, meets the requirements of §§25.901 and 25.981(a) and (b) of this chapter; and

(2) Contains all maintenance and inspection instructions necessary to maintain the design features required to preclude the existence or development of an ignition source within the fuel tank system throughout the operational life of the airplane.

(d) The Aircraft Certification Office (ACO), or office of the Transport Airplane Directorate, having cognizance over the type certificate for the affected airplane, may approve a report submitted in accordance with paragraph 2(c) if it determines that any provisions of this SFAR not complied with are compensated for by factors that provide an equivalent level of safety.

(e) Each type certificate holder must comply no later than December 6, 2002, or within 18 months after the issuance of a type certificate for which application was filed before June 6, 2001, whichever is later; and each supplemental type certificate holder of a modification affecting the airplane fuel tank system must comply no later than June 6, 2003, or within 18 months after the issuance of a supplemental type certificate for which application was filed before June 6, 2001, whichever is later.

[Doc. No. 1999–6411, 66 FR 23129, May 7, 2001, as amended by Amdt. 21–82, 67 FR 57493, Sept. 10, 2002; 67 FR 70809, Nov. 26, 2002; Amdt. 21–83, 67 FR 72833, Dec. 9, 2002]

Subpart A—General

§21.1 Applicability.

(a) This part prescribes—

(1) Procedural requirements for the issue of type certificates and changes

to those certificates; the issue of production certificates; the issue of airworthiness certificates; and the issue of export airworthiness approvals.

(2) Rules governing the holders of any certificate specified in paragraph (a)(1) of this section; and

(3) Procedural requirements for the approval of certain materials, parts, processes, and appliances.

(b) For the purposes of this part, the word ''product'' means an aircraft, aircraft engine, or propeller. In addition, for the purposes of Subpart L only, it includes components and parts of aircraft, of aircraft engines, and of propellers; also parts, materials, and appliances, approved under the Technical Standard Order system.

[Doc. No. 5085, 29 FR 14563, Oct. 24, 1964, as amended by Amdt. 21–2, 30 FR 8465, July 2, 1965; Amdt. 21–6, 30 FR 11379, Sept. 8, 1965]

§ 21.2 Falsification of applications, reports, or records.

(a) No person shall make or cause to be made—

(1) Any fraudulent or intentionally false statement on any application for a certificate or approval under this part;

(2) Any fraudulent or intentionally false entry in any record or report that is required to be kept, made, or used to show compliance with any requirement for the issuance or the exercise of the privileges of any certificate or approval issued under this part;

(3) Any reproduction for a fraudulent purpose of any certificate or approval issued under this part.

(4) Any alteration of any certificate or approval issued under this part.

(b) The commission by any person of an act prohibited under paragraph (a) of this section is a basis for suspending or revoking any certificate or approval issued under this part and held by that person.

[Doc. No. 23345, 57 FR 41367, Sept. 9, 1992]

§ 21.3 Reporting of failures, malfunctions, and defects.

(a) Except as provided in paragraph (d) of this section, the holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval (PMA), or a TSO authorization, or the licensee of a Type Certificate shall report any failure, malfunction, or defect in any product, part, process, or article manufactured by it that it determines has resulted in any of the occurrences listed in paragraph (c) of this section.

(b) The holder of a Type Certificate (including a Supplemental Type Certificate), a Parts Manufacturer Approval (PMA), or a TSO authorization, or the licensee of a Type of Certificate shall report any defect in any product, part, or article manufactured by it that has left its quality control system and that it determines could result in any of the occurrences listed in paragraph (c) of this section.

(c) The following occurrences must be reported as provided in paragraphs (a) and (b) of this section:

(1) Fires caused by a system or equipment failure, malfunction, or defect.

(2) An engine exhaust system failure, malfunction, or defect which causes damage to the engine, adjacent aircraft structure, equipment, or components.

(3) The accumulation or circulation of toxic or noxious gases in the crew compartment or passenger cabin.

(4) A malfunction, failure, or defect of a propeller control system.

(5) A propeller or rotorcraft hub or blade structural failure.

(6) Flammable fluid leakage in areas where an ignition source normally exists.

(7) A brake system failure caused by structural or material failure during operation.

(8) A significant aircraft primary structural defect or failure caused by any autogenous condition (fatigue, understrength, corrosion, etc.).

(9) Any abnormal vibration or buffeting caused by a structural or system malfunction, defect, or failure.

(10) An engine failure.

(11) Any structural or flight control system malfunction, defect, or failure which causes an interference with normal control of the aircraft for which derogates the flying qualities.

(12) A complete loss of more than one electrical power generating system or hydraulic power system during a given operation of the aircraft.

(13) A failure or malfunction of more than one attitude, airspeed, or altitude