Policy Letter (PL)

Implementation of the FAA SFAR 88 – Mandatory Action Decision Criteria Memorandum

File No	5009-32-0	**PL No.:**	525-001
RDIMS No.:	415141-V2	**Issue No.:**	01
Issuing Branch	Aircraft Certification	**Effective Date:**	2003-07-01

1.0 INTRODUCTION

1.1 Purpose

The purpose of this Policy Letter (PL) is to describe Aircraft Certification policy applicable to the implementation of the Federal Aviation Administration (FAA) Memorandum with the subject "Information: SFAR 88 – Mandatory Action Decision Criteria", and to provide specific Transport Canada tailoring of that policy to correspond with Canadian requirements.

1.2 Guidance Applicability

This PL is applicable to Headquarters (HQ) and Regional Aircraft Certification personnel, including delegates, and other Civil Aviation Branches supporting aircraft certification projects.

1.3 Description of Changes

Not applicable.

1.4 Termination

This PL will be reviewed on a yearly basis from the issue date to determine if the contents are still applicable.

2.0 REFERENCES

2.1 Reference Documents

(a) Canadian Aviation Regulation (CAR) Part V, Subpart 93 – *Airworthiness Directives*;

(b) Canadian Aviation Regulation (CAR) Standard Part VI, Subpart 25 – *Aircraft Equipment and Maintenance Standard;*

(c) Airworthiness Manual (AWM) Chapter 525 – *Transport Category Aeroplanes*:

(i) Section 525.901 – *Powerplant: General, Installation*; and

(ii) Section 525.981 – *Powerplant: Fuel System, Fuel tank ignition prevention*.

(d) U.S. Department of Transportation - Federal Aviation Administration (FAA) Title 14, Code of Federal Regulations (CFR), part 25:

(i) Section §25.901 – *Powerplant: General, Installation*; and

(ii) Section §25.981 – *Powerplant: Fuel System, Fuel tank ignition prevention*.

(e) U.S. Department of Transportation, Federal Aviation Administration (FAA) Memorandum, dated February 25, 2003 – *Information: SFAR 88 – Mandatory Action Decision Criteria*;

(f) U.S. Department of Transportation, Federal Aviation Administration (FAA) Special Federal Aviation Regulation Number 88 (SFAR 88) – *Fuel Tank System Fault Tolerance Evaluation Requirements*; and

(g) U.S. Department of Transportation, Federal Aviation Administration (FAA) Advisory Circular (AC) 25.981-1B or C (draft) – *Fuel Tank Ignition Source Prevention Guidelines*.

Note:

Reference material identified in 2.1(e) to (g) is available from the U.S. Department of Transportation, Federal Aviation Administration Special Federal Aviation Regulation No. 88 (SFAR 88) "FlamEx" Web Site at http://qps.airweb.faa.gov/sfar88flamex.

2.2 Cancelled Documents

Not applicable.

3.0 BACKGROUND

The purpose of the FAA memorandum, which is the subject of this PL, is to provide standardized policy for determining the need for mandatory action relative to the findings from the fuel system safety review required by Special Federal Aviation Regulation Number 88 (SFAR 88). SFAR 88

requires certain Type Certificate and Supplemental Type Certificate (STC) holders to conduct a system safety review of fuel tank systems on transport category airplanes using the provisions of 14 CFR 25.981(a) and (b) (Amendment 25-102) and 25.901 and submit a report to the FAA. The FAA has established compliance dates for Type Certificate holders and STC holders of December 6, 2002, and June 6, 2003, respectively. These reviews are considered by the FAA to be a "re-evaluation" of previously approved fuel systems using the current ignition prevention standards (Amendment 25-102) and not a re-certification effort.

Note:

Transport Canada adopted FAA Amendment 25-102 in AWM Chapter 525 using Canadian Aviation Regulation Advisory Council (CARAC) Notice of Proposed Amendment (NPA) 2002-043, which was published as CAR Standard 525 Change 9.

SFAR 88 is a process for determining what design and/or maintenance improvements would be required to bring each existing transport category airplane into compliance with 14 CFR 25.981(a) and (b) (Amendment 25-102) and 25.901. Some of these improvements may warrant airworthiness directives implemented under Part 39, others may not. A "Spot Amendment" to SFAR 88, Amendment 21-82, was issued to add an equivalent safety finding provision and clarify that fuel tank systems designs not meeting the new standards will be further reviewed under Part 39, to determine if design changes or other actions are required to resolve unsafe conditions. SFAR 88 was also revised to allow additional time for STC holders and operators to comply.

The FAA intends the memorandum to provide policy to be used for determining unsafe conditions, due to ignition sources, based upon results from the one time system safety reviews conducted to evaluate compliance with §§ 25.981(a) and (b) (Amendment 25-102) and 25.901 in accordance with SFAR 88. The Type Certificate and STC holder's system safety assessment provided in their fuel tank system safety reviews and flammability exposure time determination of each fuel tank is the basis for the determination of the unsafe condition.

4.0 IMPLEMENTATION OF THE FAA MEMORANDUM

4.1 Policy

The subject FAA memorandum is adopted by Transport Canada as Aircraft Certification policy, as published, subject to the applicability defined in section 4.2 and the specific tailoring defined in section 4.3 of this PL. The Manager, Domestic Regulations (AARDH/D) in Headquarters shall be consulted prior to applying versions of this FAA Memorandum issued after February 25, 2003.

4.2 Applicability

This PL is applicable to Canadian state of design Type Certificates and Supplemental Type Certificates validated by the FAA and subject to SFAR 88 applicability. Transport Canada will evaluate SFAR 88 design review results using this PL as a basis to determine whether there exists an unsafe condition, in the context of the current heightened awareness of fuel tank safety concerns that would be recognized under the normal continuing airworthiness processes and for which an Airworthiness Directive would be issued.

4.3 Tailoring of Policy

When reading the subject FAA memorandum, the following changes shall be made:

(a) Where the authority is identified as "the FAA", Transport Canada Civil Aviation should be substituted in its place;

(b) Where reference is made to "Part 39", "Subpart 593 of the CARs" should be substituted in place;

(c) Where reference is made to "14 CFR 25.981(a) and (b) (Amendment 25-102) and 25.901", the following should be substituted in its place "subsection 525.981(a) and (b) (incorporated as CAR Standard 525 Change 9) and section 525.901";

(d) Where reference is made to determining "suitability of data or submitting data to the FAA, the Aircraft Certification Office (ACO) or office of the Transport Airplane Directorate having cognizance over the type certificate", the following should be substituted in its place "Transport Canada, the regional Aircraft Certification office, or the Aircraft

Certification Branch Program Management Division in Headquarters who has oversight responsibility for the specific type certificate"; and

(e) Where reference is made to Operator Requirements, Transport Canada is currently promulgating under the CARAC system NPA 2002-103 amending CAR Standard 625 Appendix C to capture the maintenance requirements of the "out of phase tasks" as identified by the design holders fuel tank safety design reviews. Transport Canada requirements for operators will become effective with the effectivity of NPA 2002-103.

5.0 HEADQUARTERS CONTACT

The responsible officer indicated below may be contacted for information regarding this PL:

Policy Standards Coordinator (AARDH/P)
Phone: (613) 990-3923
Facsimile: (613) 996-9178
E-mail: AARDH-P@tc.gc.ca

Original signed by Maher Khouzam

M. Khouzam
Chief, Regulatory Standards
Aircraft Certification Branch