

**UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON, DC 20591**

In the matter of the petition of

CESSNA AIRCRAFT COMPANY **Regulatory Docket No. FAA-2007-0105**

for exemption from 14 CFR Part 23,
§ 23.855(c)(2) of the Federal
Aviation Regulations

DENIAL OF EXEMPTION

By letter dated September 18, 2007, Kim A. Hackett, Cessna Aircraft Company, One Cessna Boulevard, P.O. Box 7704, Wichita, Kansas 67277-7704, petitioned for an exemption from compliance with 14 CFR, part 23, § 23.855(c)(2) to permit type certification of the Cessna 525C airplane with an exemption to allow the Cessna 525C to be certified without a smoke or fire detector system in the cargo/baggage compartments as required for a commuter category airplane.

The petitioner requests relief from the following regulation(s):

Section 23.855(c) requires: "In addition, for commuter category airplanes, each cargo and baggage compartment must:

(1) Be located where the presence of a fire would be easily discovered by the pilots when seated at their duty station, or it must be equipped with a smoke or fire detector system to give a warning at the pilots' station, and provide sufficient access to enable a pilot to effectively reach any part of the compartment with the contents of a hand held fire extinguisher, or

(2) Be equipped with a smoke or fire detector system to give a warning at the pilots' station and have ceiling and sidewall liners and floor panels constructed of materials that have been subjected to and meet the 45 degree angle test of appendix F of this part. The flame may not penetrate (pass through) the material during application of the flame or subsequent to its removal. The average flame time after removal of the flame source may not exceed 15 seconds, and the average glow time may not exceed 10 seconds. The compartment must be

constructed to provide fire protection that is not less than that required of its individual panels; or

(3) Be constructed and sealed to contain any fire within the compartment.”

The petitioner supports its request with the following information:

The basis for requesting an exemption from the requirements of 14 CFR § 23.855(c)(2) is as follows:

1. Technology is not currently available to reliably detect smoke without false annunciations due to water vapor fog in the unheated and unpressurized baggage compartment in the operating envelope of the Model 525C.

2. At the very least, false annunciations of baggage smoke would prove to be a distraction to the crew and at worst could cause the crew to act in a manner to increase hazard to the aircraft. Further, frequent false annunciations could lead pilots to ignore smoke annunciations.

3. The baggage compartments on Cessna Citation aircraft have no history of baggage fires. The Model 525C is of similar size, is operated by the same class of customers, and is used in similar missions. There is also no record of baggage fires on any "executive aircraft”.

4. The baggage compartments on the Model 525C are small enough to make uncontrolled fire extremely unlikely.

5. The cost of installing and maintaining a properly functioning baggage compartment fire detection system is not justified by a commensurate increase in safety. Cessna Aircraft Company respectfully requests that the preceding discussion and rationale is ample justification under the provision set forth in 14 CFR 11 for the grant of the requested exemption.

Comments on published petition summary:

A summary of this petition for exemption was published in the FEDERAL REGISTER for public comment on February 6, 2008. The comment period closed on February 26, 2008, and no comments were received.

The Federal Aviation Administration's (FAA) analysis is as follows:

To obtain this exemption, the petitioner must show, as required by §§ 11.81(d) and 11.81(e) of the Federal Aviation Regulations, that: (1) granting the request is in the public interest, and (2) the exemption will not adversely affect safety, or that a level of safety will be provided that is equal to that provided by the rules from which the exemption is sought.

The FAA has carefully reviewed the information contained in the petitioner's request for exemption.

Cessna made no argument for public benefit beyond the nuisance warning issue.

The FAA disagrees with the petitioner's argument that the level of safety is equivalent. While we agree that nuisance warnings caused by fog is an issue, safety is provided by § 23.855(c)(2) for a cargo or baggage compartment that meets the self-extinguishing flammability requirements and has a smoke or fire detector system. This is not equivalent to one with self-extinguishing materials but without a fire or smoke detector system. Thus, the public interest would not be served by approval of the exemption request because safety would be adversely affected.

In consideration of the foregoing, I find that a grant of exemption, as requested, is not in the public interest nor maintains the level of safety required by the rule from which the exemption is sought. Therefore, pursuant to the authority of Sections 313(a) and 601(c) of the Federal Aviation Act of 1958, as amended, delegated to me by the Administrator (14 CFR 11.61), the petition of Cessna Aircraft Company for an exemption from 14 CFR, part 23, § 23.855(c)(2) of the Federal Aviation Regulations is hereby denied.

Issued in Kansas City, Missouri on May 6, 2008.

S/

Kim Smith
Manager, Small Airplane Directorate
Aircraft Certification Service