Exemption No. 10070

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
RENTON, WASHINGTON 98057-3356

In the matter of the petition of **Airbus** for an exemption from § 26.33 of Title 14, Code of Federal Regulations	**Regulatory Docket No. FAA-2010-0166**

GRANT OF EXEMPTION

By submission to the Department of Transportation's Federal Docket Management System (FDMS) dated February 9, 2010, Mr. Yves Regis, Head of Product Integrity, Airbus SAS, B35-0A7, 1 Rond-point Maurice Bellonte, 31707 Blagnac Cedex, France, petitioned the Federal Aviation Administration (FAA) for an exemption from the requirements of Title 14, Code of Federal Regulations (14 CFR) 26.33(c), (d), (e), (f), and (h). This exemption is requested for Airbus A310 passenger carrying airplanes. These models are identified on Type Certificate Data Sheet A35EU as A310, Models 304, 322, 324, and 325. Section 26.33 is related to the development of flammability-reduction means or ignition-mitigation means for fuel tanks.

The petitioner requests relief from the following regulation:

Section 26.33(c), (d), (e), (f), and (h), which require the development of service instructions for making design changes to reduce the flammability or mitigate the effects of an ignition of fuel vapors and associated Instructions for Continued Airworthiness for fuel tanks determined to be highly flammable. This section also requires the development of compliance plans for accomplishing these activities.

The petitioner supports its request with the following information:

This section quotes the relevant information from the petitioner's request, with minor edits for clarification. The complete petition is available at the Department of Transportation's Federal Docket Management System, on the Internet, at http://www.regulations.gov, in docket No. FAA-2010-0166.

Background

Airbus has complied with § 26.33(b) and (g). The relevant evidence submitted to the FAA (Airbus document reference 00X28053001/C02 at issue 2) showed that the fuel

center-tank flammability exposure of the concerned aircraft is below the 7% threshold defined as acceptable by the FAA. Despite the submittal of additional justifications, the FAA disagrees with the Airbus demonstration and requests that additional A310 flight tests be performed in warm-day conditions. It is Airbus' understanding that pending these flight tests, the FAA considers that A310 fuel center-tank flammability exposure has not been demonstrated as being below the 7% threshold. On this basis, as per § 26.33(c), Airbus would then have to develop design changes to either reduce the center-tank flammability exposure as per § 26.33(c)(1) or mitigate the effect of a fuel-vapor ignition as per § 26.33(c)(2). Airbus has no intent to develop such design changes given the imbalance between the costs of such changes vs. the size and future of the affected A310 passenger-carrying fleet (detailed later on in this letter). Hence the requested exemption which covers the requirements:

- To develop changes
- To develop the associated service instruction, ICA, and limitations
- To develop a compliance plan for the aforementioned developments and certifications

Public interest

According to Airbus records and information, no A310 passenger airplanes have been affected by § 26.33(a), operated under part 121, 125, or 129, since year 2000.

Following cessation of A310 production (in 1998) and with the A310 worldwide fleet getting older and subsequently reducing in number, it is very unlikely that any passenger-carrying A310 aircraft will be operated under part 121, 125, or 129 in the future. Experience shows that, when changing operators, A310 aircraft are now mostly converted to all-cargo operation.

Airbus therefore finds that granting this exemption is in the public interest as a whole. The design-approval holder (DAH) and the FAA will avoid expending efforts on developing and certifying design changes that would have no actual safety benefit, since no concerned passenger-carrying aircraft would be operated under part 121, 125 or 129 at the time of the first retrofit target is passed. The saved efforts would benefit other safety initiatives with more tangible benefits for the public as a whole.

Statement on airplane safety

Airbus considers that granting this exemption will not adversely affect safety for the same reason as detailed above, i.e., no airplane will be affected by § 26.33(a) operated under parts 121, 125, and 129 after the first operational rule retrofit compliance date prescribed by these later rules, i.e., December 27, 2014. Additionally Airbus has assessed that the A310 fuel center tank has flammability exposure less than 7%.

Additional supporting information

The FAA has granted a similar exemption for the A300-600R passenger-carrying aircraft models.

Airbus may decide at a later stage to satisfy the FAA request for additional flight tests and hence be in the position to obtain an agreement from the FAA that the A310 fuel center tank has a flammability exposure below 7%, thus negating the need for this exemption.

Alternatively, Airbus may wish to inform the FAA of design changes that may be defined in order to reduce the A310 fuel center-tank flammability exposure to less than 7%, although not down to the levels required per § 26.33 (c)(1) (through the reference to Appendix M to FAR 25). In the unlikely event that a US operator wishes to operate A310 passenger-carrying aircraft under part 121, 125, or 129 in the future, these design changes could be proposed as mitigation means to rescind the presently requested exemption and replace it with another one that could allow aircraft operation while not adversely affecting safety.

To the best of Airbus knowledge, no N-registered airplanes affected by this rule are operated outside the United States. There is therefore no need to exercise the privileges of the requested exemption outside the United States.

Federal Register publication

The FAA has determined that good cause exists for waiving the requirement for Federal Register publication because this exemption, if granted, would not set a precedent, and recent, similar petitions have received no public comments.

The FAA's analysis

The FAA has developed criteria to consider when deciding whether to grant or deny a DAH's petition for exemption from part 26 requirements. These criteria were meant as a general guide to making decisions about such requests and were not developed for any specific request. The FAA uses these criteria as a starting point for making its decision. However, other factors may also be considered before a final decision is made on any particular exemption request.

The criteria are described in the following table.

Table 1: Criteria for Considering Eligibility for Exemption from § 26.33

If the airworthiness authority for the state of design is	And	And	And	And	Then
The FAA	No airplanes are operating under part 121 and it is unlikely that any will do so in the future[3]	No airplanes are operating under part 125 and it is unlikely that any will do so in the future[3]	No airplanes are operating under part 129 (N-registered) and it is unlikely that any will do so in the future[3]	No airplanes are being operated by a foreign air carrier and it is unlikely that any will do so in the future[3]	The DAH may be eligible for an exemption
The FAA	Airplanes are operating under part 121 but no airplanes will be operated under part 121 after the operational-rule compliance date[1] and it is unlikely that any will return to such service in the future[3]	Airplanes are operating under part 125 but no airplanes will be operated under part 125 after the operational-rule compliance date[1] and it is unlikely that any will return to such service in the future[3]	Airplanes are operating under part 129 (N-registered) but no airplanes will be operated under part 129 (N-registered) after the operational-rule compliance date[1] and it is unlikely that any will return to such service in the future[3]	Airplanes are being operated by a foreign air carrier but no airplanes will be operated by a foreign air carrier after the operational-rule compliance date[1] and it is unlikely that any will return to such service in the future[3]	The DAH may be eligible for an exemption
Not the FAA	No airplanes are operating under part 121 and it is unlikely that any will do so in the future[3]	No airplanes are operating under part 125 and it is unlikely that any will do so in the future[3]	No airplanes are operating under part 129 (N-registered) and it is unlikely that any will do so in the future[3]		The DAH may be eligible for an exemption
Not the FAA	Airplanes are operating under part 121 but no airplanes will be operated under part 121 after the operational-rule compliance date[2] and it is unlikely that any will return to such service in the future[3]	Airplanes are operating under part 125 but no airplanes will be operated under part 125 after the operational-rule compliance date[2] and it is unlikely that any will return to such service in the future[3]	Airplanes are operating under part 129 (N-registered) but no airplanes will be operated under part 129 (N-registered) after the operational-rule compliance date[2] and it is unlikely that any will return to such service in the future[3]		The DAH may be eligible for an exemption

[1] The design-approval holder must demonstrate that these airplanes will not be operating under part 121, 125, or 129, or operated by a foreign air carrier, after the operational-rule compliance date by obtaining documentation of such from the current owners/operators of the airplanes.

[2] The design-approval holder must demonstrate that these airplanes will not be operating under part 121, 125, or 129 after the operational-rule compliance date by obtaining documentation of such from the current owners/operators of the airplanes.

[3] Arguments for the likelihood of an airplane not entering into air-carrier service in the future should center on the airplane's age and/or current configuration.

The determination of whether an airplane is operating under part 121, 125, or 129 is based on whether that particular airplane is listed on an air carrier's Operations Specifications.

The rationale behind the criteria contained in the table above is this: The rule requires DAHs to develop data for use by operators. If no operators for a particular airplane are required by the rules to use such data, it would be a poor use of resources for the DAH to develop it. Therefore, it benefits both the DAH and the public as a whole to spend resources on more important safety issues rather than on developing data that will not be used. In addition, granting such an exemption would not adversely affect safety because none of the airplanes would be required to incorporate the data, nor is it likely that there will be any in the future.

The FAA has reviewed Airbus' request and determined that granting this exemption would not have an adverse effect on public safety and would be in the public interest. Regarding the criteria in Table 1, the FAA is not the airworthiness authority for the state of design for Airbus A310 airplanes and no A310 airplanes meeting the applicability criteria of § 26.33(a) operate under parts 121, 125 or 129 (U.S. registered only). The FAA also agrees that it is unlikely that any A310 airplanes meeting the applicability criteria of § 26.33(a) will enter into new operations under parts 121, 125 or 129 (U.S. registered only). However, if, in the unlikely event an operator does desire to operate one of these airplanes in these operating parts, §§ 121.1117, 125.509 and 129.117 require that a design change to the airplane's center fuel tank, if required by § 26.33, be installed that either reduces its flammability to the level required by § 26.33(c)(1)(i) or provides a means to mitigate the effects of an ignition of fuel vapors to the level required by § 26.33(c)(2). Since Airbus has not demonstrated whether a design change is required by § 26.33, the operator would also be responsible for demonstrating if § 26.33 requires the design change based on the airplane as it was configured on December 26, 2008, the effective date of the part 26 rule. The FAA will add a note to Type Certificate Data Sheet A35EU to advise potential future operators of this requirement.

Section 26.33(b) requires that Airbus submit for approval to the FAA a flammability-exposure analysis of the center fuel tanks of the affected A310 airplanes. This section requires that the submitted analysis be approvable. The FAA found the submitted analysis to not be acceptable, but considers that the reasons explained above also provide appropriate justification for granting relief from § 26.33(b).

Airbus A310 Model 304, 322, 324, and 325 airplanes meet the baseline exemption criteria for part 26. No other factors require consideration regarding Airbus' petition for exemption.

Additional information

This exemption grants relief to Airbus from having to meet the requirements of § 26.33(b), (c), (d), (e), (f), and (h). This exemption <u>does not</u> grant relief from the related operational requirements contained in §§ 121.1117, 125.509, or 129.117. Should a person

choose to operate an Airbus A310 Model 304, 322, 324, or 325 airplane under part 121, 125, or 129 beyond the operational compliance deadlines as stated in §§ 121.1117, 125.509, or 129.117, that person will be required to comply with those operational requirements.

Supplemental Type Certificate (STC) holders

Section 26.35 applies to holders, and applicants for approvals, of certain design changes to airplanes meeting the applicability criteria of § 26.33(a). Section 26.35(a)(1) states that the installation of a fuel tank designed to be Normally Emptied, that is installed by supplemental type certificate (STC) approved before December 26, 2008, is an applicable design change. Section 26.35 requires holders of these STCs to submit to the FAA a flammability-exposure analysis of the new fuel tank, an assessment of the fuel-tank system as modified by their change, and depending on the results of the assessment, the development of design changes and service instructions. The FAA considered the impact on these existing STC holders (i.e., those meeting the applicability criteria of § 26.35(a)(1)) and whether a grant of exemption should be expanded to provide them relief as well. Because the baseline exemption criteria of Table 1 is met for A310 airplanes meeting the applicability criteria of § 26.33(a), the FAA has determined that it would not adversely affect public safety and would be in the public interest to expand this grant and provide relief from § 26.35 to holders of these existing STCs.

The FAA's decision

In consideration of the foregoing, I find that a grant of exemption to Airbus, and holders of STCs meeting the applicability criteria of § 26.35(a)(1), is in the public interest. Therefore, pursuant to the authority contained in 49 U.S.C. §§ 40113 and 44701, delegated to me by the Administrator, Airbus is hereby granted an exemption from § 26.33(b), (c), (d), (e), (f), and (h) for Airbus A310 Model 304, 322, 324, and 325 airplanes. Holders of STCs approved before December 26, 2008, that install fuel tanks designed to be Normally Emptied on Airbus A310 Model 304, 322, 324, and 325 airplanes are hereby granted an exemption from § 26.35 for these STCs.

The FAA will add a note to Type Certificate Data Sheet A35EU to advise potential, future operators that a determination of whether a design change to the center fuel tank is required by § 26.33 has not been made due to this exemption. It will further state that if an operator desires to operate affected airplanes in parts 121, 125, or 129 (U.S. registered only) service, they are responsible for demonstrating whether or not a design change is required by § 26.33, and if required, installing a design change that either reduces the center fuel-tank flammability to the level required by § 26.33(c)(1)(i), or provides a means to mitigate the effects of an ignition of fuel vapors to the level required by § 26.33(c)(2). The determination of whether a design change is require by § 26.33 must be based on the airplane as configured on December 26, 2008.

Any STC holder who desires to use this exemption must send a request to the FAA to revise the STC limitations and conditions section to state that:

- this exemption has been applied,
- compliance with § 26.35 has not been demonstrated, and
- §§ 121.1117, 125.509 and 129.117 require that a Flammability Impact Mitigation Means be installed by the compliance times specified in those regulations, if required by § 26.35.

Issued in Renton, Washington, on May 25, 2010.

/s/

Ali Bahrami
Manager, Transport Airplane Directorate
Aircraft Certification Service