

DEPT. OF TRANSPORTATION  
OFFICES

07 DEC 14 AM 9:58



December 17, 2007

U. S. Department of Transportation  
Docket Management Facility  
1200 New Jersey, SE  
West Building Ground Floor  
Room W12-140  
Washington, DC 20590-0001

RE: Petition for Exemption

Ladies and Gentlemen:

Federal Express Corporation (FedEx Express), operating under certificate FDEA140A, petitions the Administrator for limited relief from Title 14 of the Code of Federal Regulations (14CFR) §121.312(e)(1) in the operation of nine (9) U. S. registered MD-11F airplanes. These airplanes were converted from passenger configured airplanes to freighter configurations by Boeing after the effective date of §121.312(e)(1) of September 2, 2005.

During the conversions of these nine (9) airplanes by the Boeing Company, two (2) cockpit air supply ducts, which did not meet the rule requirement, were installed in series on one airflow path. In addition, the Boeing Company has advised FedEx Express that replacement parts which do comply with this rule are currently not available. After careful evaluation, the Boeing Company and the FAA Los Angeles Airplane Certification Office has concluded the existing cockpit air supply duct installations on these airplanes do not constitute an unsafe condition. Therefore, FedEx Express requests these nine (9) MD-11F airplanes be exempted from the requirements of 14CFR §121.312(e)(1) and be permitted to conduct scheduled and non-scheduled air carrier operations.

FedEx Express does not believe this exemption is controversial and would not set any precedents. For this reason, and the reasons stated above, FedEx Express requests that a finding of good cause be made for waiving publication in the *Federal Register* (14 CFR §11.87) which may cause further delay in acting upon this petition. If you have any questions or need additional information, please contact either myself or Mr. Michael Wilson, FedEx Express, FAA & Industry Affairs, at (901) 224-4545.

Sincerely,

A handwritten signature in black ink, appearing to read "John M. Hansen".

John M. Hansen  
Lead Counsel

FedEx Express Corporation

FedEx Express  
Petition for Exemption  
December 17, 2007

1 of 7



Federal Express Corporation  
(FedEx Express)

Petition for Exemption of § 121.312 (3)(1)

December 17, 2007

FedEx Express, operating certificate FDEA140A, petitions the Administrator for limited relief from FAR §121.312(e)(1), in order to conduct scheduled and non-scheduled air carrier operations with nine (9) U.S. registered MD-11F airplanes. The nine (9) subject MD-11F airplanes were converted from passenger configured airplanes to freighter configurations by Boeing, after the effective date of FAR §121.312(e)(1), September 2, 2005. During the conversions, two (2) cockpit air supply ducts which did not meet the subject rule were installed in series on one airflow path of the nine (9) FedEx Express delivered airplanes.

Currently, replacement parts for the ducts which comply with FAR §121.312(e)(1) are not available. In addition, both ducts are not readily accessible without removal of a crew rest monument which has no scheduled removal for maintenance. Of preeminent note, the Boeing Company and the FAA Los Angeles Airplane Certification Office have concluded that the existing cockpit air supply duct installation installed on the affected airplanes do not constitute an unsafe condition.

FedEx Express respectfully requests relief from FAR §121.312(e)(1) installation and use of the two (2) aforementioned ducts on nine (9) MD-11F airplanes.

In accordance with the provisions of Federal Aviation Regulations (FAR) 11.25, FedEx Express petitions for an exemption from FAR 121.312(e)(1) .

## **Sections of the FARs Affected:**

Applicable Requirements:

CFR 14 §121.312, *Materials for compartment interiors*, states in part:

*“(e) Thermal/acoustic insulation materials. For transport category airplanes type certificated after January 1, 1958:*

*(1) For airplanes manufactured before September 2, 2005, when thermal/acoustic insulation materials are installed in the fuselage as replacements after September 2, 2005, those materials must meet the flame propagation requirements of §25.856 of this chapter, effective September 2, 2003.”*

The applicable portions of §25.856(a) requires that the subject parts; “... *must meet the flame propagation test requirements of part VI of Appendix F ...*” which requires a “radiant panel, 3 second, 2 inch, horizontal” flammability test.

### Superseded Requirements

CFR 14 §25.853, *Compartment Interiors*, “15 second, 8 inch, vertical” flammability test.

## **Description of the Issue:**

In late 2006, the Boeing Company disclosed to the FAA that two air supply ducts, installed on converted MD-11F airplanes, had no evidence of having received FAA certification to the §121.312(e) (§25.856(a)) rule.

Nine (9) subject MD-11F airplanes, registration numbers; N577FE, N574FE, N576FE, N575FE, N526FE, N527FE, N524FE, N523FE, and N521FE were converted by the Boeing Company, from passenger configured MD-11 airplanes to all freight MD-11F airplanes after September 2, 2005, the effective date of §121.312 . During the conversions from passenger to freighter configuration, the cockpit air supply duct(s) required replacement to accommodate the cockpit crew rest module. The BWT 10502-1 Silencer Duct and ABM 7668-1 Duct were installed during the conversions.

The BWT 10502-1 Silencer Duct and ABM 7668-1 Duct were originally certified as part of the MD-11/MD-11F Type Design during production. The MD-11/MD-11F certification basis required compliance with §25.853 for these parts.

## **Requested Relief:**

FedEx Express requests that an Exemption be granted from the requirements of §121.312(e)(1) to allow continued operation of the nine (9) subject MD-11F airplanes, with the BWT 10502-1 Silencer Duct and ABM 7668-1 Duct installed.

Further, FedEx Express requests that this Exemption be granted for the maximum period allowed. If the Exemption period is to be limited, allowance for consideration of renewal is also requested.

FedEx Express believes the granting of this requested relief will set no precedent and a finding of good cause can be made for waving publication in the *Federal Register* (14 CFR §11.87).

## **Discussion:**

Access to the subject ducts requires the removal of a crew rest monument which would consume significant resources.

There is no normally scheduled maintenance that requires the removal of the crew rest monument.

Currently, no replacement parts for the subject ducts are available that meet the §121.312(e)(1) requirements.

Removal and replacement of the subject ducts would require the nine (9) airplanes be removed from service for a significant time to accomplish the work. These airplanes have only recently entered service from the conversion and major maintenance. As such, near term opportunities are not available to perform removal and replacement without adversely affecting the utilization schedule of these airplanes.

MD-11 and MD-11F airplanes with the subject ducts installed prior to September 2, 2005, the effective date of §121.312, can be operated indefinitely in compliance with the applicable regulations.

## **Justification:**

The operation of the nine (9) subject airplanes should be allowed to continue to operate with the BWT 10502-1 Silencer Duct and ABM 7668-1 Duct installed for the following reasons:

- Many MD-11F airplanes were either originally configured with these ducts or converted to freighter configurations which incorporated these ducts, prior to September 2, 2005.
- Under the §121.312 rule, the applicable flammability requirements in place for these ducts during the original certification provide an acceptable level of safety to the FAA for indefinite continued operation, if the part remains in serviceable condition, or until an affected part is replaced for any reason.
- The §121.312 rule was intended to raise the standard for flammability of specific products through attrition of replacement, rather than unilaterally.
- The subject airplanes constitute a very small percentage of all MD-11 airplanes, equipped with products, most of which §121.312(e)(1) is not applicable, simply due to their installation date and therefore they may continue to operate indefinitely.
- The subject ducts constitute a very small portion of the overall volume of materials affected by flammability regulations within the MD-11F.

## **No Adverse Effect on Public Safety:**

The Boeing Company (OEM) and FAA Los Angeles Aircraft Certification Office have assessed this condition and both have concluded that no unsafe condition is created from operation of the nine (9) subject airplanes with the BWT 10502-1 Silencer Duct and ABM 7668-1 Duct installed.

## **Public Interest:**

The public interest will be served by the granting of this Exemption for the following reason:

The nine (9) subject airplanes, which constitute a significant payload capacity for FedEx Express and contribute substantially to U.S. commerce, would be allowed to continue to provide uninterrupted service to the public.

## **Conclusion:**

FedEx Express, is currently operating nine (9) U. S. registered MD-11F airplanes which were recently converted from passenger to all cargo configuration by the Boeing Airplane Company. During the conversions two (2) cockpit air supply ducts which did not meet the subject rule were installed in each airplane. Replacement parts for the ducts which comply with FAR §121.312(e)(1) are not currently available. In addition, both ducts are not readily accessible without removal of a crew rest monument which has no scheduled removal for maintenance. Finally, the Boeing Company and the FAA Los Angeles Airplane Certification Office have concluded that the existing cockpit air supply duct installation installed on the affected airplanes do not constitute an unsafe condition.

FedEx Express respectfully requests relief from FAR §121.312(e)(1) installation and use of the two (2) aforementioned ducts on nine (9) MD-11F airplanes.

FedEx Express request that a finding of good cause be made for waving publication in the *Federal Register* (14 CFR §11.87) as granting this requested relief will set no precedent.