

**Exemption No. 9769**

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

In the matter of the petition of

**Greenpoint Technologies, Inc.**

for an exemption from § 25.853(d) of Title  
14, Code of Federal Regulations

**Regulatory Docket No. FAA-2008-0812**

**GRANT OF EXEMPTION**

By letter dated July 18, 2008, Mr. Greg Cummings, Sr. Director, Aircraft Certification, Greenpoint Technologies, Inc., 4600 Carillon Pt., Kirkland, WA 98033, petitioned the Federal Aviation Administration (FAA) for an exemption from the requirements of § 25.853(d) of Title 14 Code of Federal Regulations (14 CFR). This exemption, if granted would permit installation of interior materials that do not comply with heat release and smoke emissions requirements on a Boeing Model 737-700C airplane, serial number 36756, which, in one of three possible interior configurations, will be configured for “ ‘private use’ and not operated for hire or for common carriage.”

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

**Section 25.853(d)** - Limits maximum heat release rates and smoke emissions for large panel cabin interior materials.

**The petitioner supports its request with the following information:**

“Greenpoint Technologies Inc., Kirkland, Washington, petitions for an exemption from the requirements of § 25.853(d), Title 14 Code of Federal Regulations (14 CFR). This exemption, if granted would permit installation of interior materials that do not comply with heat release and smoke emissions requirements on a Boeing 737-700C (BBJC) serial number 36756 airplane, with certain limitations.

**“GENERAL BACKGROUND:**

Under FAA Project No. ST10254SE-T. Greenpoint Technologies, Inc. is contracted to install and certify an executive interior arrangement in the BBJC per customer specifications.

“14 CFR 25.853(d) limits maximum heat release rates and smoke emissions for large panel cabin interior materials. This petition is specifically proposed for the Boeing Model 737-700C (BBJC) airplane serial number 36756 as configured for "private use" and not operated for hire or for common carriage.

“Under Production Certificate 700 and Type Certificate A16WE, Boeing manufactured the BBJC in accordance with 14 CFR 25. Part 25 provides rules governing the design and the certification requirements of Transport Category Aircraft that are generally considered to be commercial aircraft being operated under 14 CFR 121 in the commerce of transporting fare paying passengers. There are however, other types of businesses that Transport Category Aircraft support that do not use their airplanes in revenue service.

“This BBJC will be operated under 14 CFR 125. The low density 35-passenger interior arrangement is very typical for a VIP or private corporate business airplane.

**“EXEMPTION REQUESTED:**

“That Boeing 737-700C, serial number 36756, when configured for private use in the low density 35-passenger configuration and operated under 14 CFR 125 be exempted from 14 CFR 25.853(d) which requires installation of interior materials that comply with heat release and smoke emission requirements. Specifically, the two club tables located in the mid cabin conference area are the only materials that do not meet heat release and smoke emission requirements.

**“JUSTIFICATION:**

“Customers are purchasing center-aisle air transport jet aircraft (larger than the typical corporate business jets) for personal transportation because they wish to create a spacious and impressive atmosphere which they are accustomed to.

“The operation of this aircraft is limited to private use by an individual or a company and does not include scheduled flights, fare-paying public passengers or cargo-for-hire commercial service.

“The interior arrangement is simple, allowing flight and cabin crew to be familiar with the particular configuration of the airplane, emergency equipment provided, and the location and operation of the emergency exits. This airplane will be operated with a familiar crew unlike a commercial airline which may use many different types of airplanes with many different interior configurations and many different interior configurations on a single airplane type.

“The purpose of this regulation was to ensure that occupants of an airplane, during an emergency that includes a cabin fire, have an opportunity to evacuate the airplane before heat released by the fire or the phenomena known as 'flash-over' causes the environment in the cabin to reach the flash point of the ceiling material. On this 737-700C, with approximately 24 percent of the number of passengers carried in an equivalent sized airliner, an emergency evacuation of the airplane will occur at times much more representative of a smaller type of airliner. Because of the lower passenger densities, the lower passenger-to-exit ratios, and the enhanced evacuation rate capability provided by the type of exits installed in the 737-700C, it is appropriate to apply criteria to this airplane that is more closely associated with airplanes carrying twenty or fewer passengers. The passenger to door ratio will be less than those airplanes envisioned by the rule, and the emergency exits are capable of evacuating more passengers in a short period of time.

“Since this is a Convertible airplane with three arrangement: 93 passenger, 35 passenger, and cargo mode, we therefore request an exemption from this rule only for the 35-passenger arrangement. Specifically, for two conference table panels installed only in the 35-passenger arrangement. All other interior materials installed in each arrangement meet the requirements of the type certification basis of the airplane.

“Greenpoint’s request for an exemption for the 737-700C is similar to the FAA Exemption No. 6820A for the Boeing Model 737-700IGW (BBJ) Airplane and FAA Exemption No. 7609 for the Boeing Model 737-800 (BBJ2) airplane, and is based on the unique operation of transport category airplanes intended for private use. The FAA has previously approved special features, for transport category airplanes operated in private use that are similar to those addressed in this petition for exemption. The BBJC airplane and BBJ airplane are very similar.

#### “Occupant Safety Considerations

“Considering the small number of occupants, less than 24% of that of the maximum type certified configuration, and the familiarity of the flight and cabin crews with the specific airplane, its passengers, and its interior arrangement, there should be no degradation in passenger safety. The flammability requirements were based on evacuation of the aircraft by a larger number of passengers within 90 seconds, the smaller number of BBJC passengers would be able to evacuate the aircraft in less time, before the cabin became unsafe from lethal or non-survivable smoke and fumes.

#### “PUBLIC INTEREST:

“Sales of center-aisle air transport jets, such as the Boeing Business Jets 737-700IGW, 737-700C, and 737-800, would suffer without granting this exemption. The highly desirable executive interior configuration with custom features and spacious environment could not be certified without this exemption. Granting this exemption would allow companies to conduct their business and create more jobs for the public.

“Granting this exemption would be in the public interest because US aircraft manufacturers could sell more large aircraft outside the airline market. The benefits are enormous to the US economy.

“Public Comment Waiver Request:

“We also respectfully request that the petition be processed and that the publication and the comment procedures be waived in accordance with 14 CFR 11.29 and 11.87 for the following reasons:

“This type of exemption has been granted before for Boeing Business Jets (737-700IGW & 737-800) and is routinely granted for “Private, Not for Hire” aircraft with Executive or Head of State Interiors (Exemptions 6820A and 7609).

- The issue is non-controversial
- Granting the petition would not set a precedent

“**CONCLUSIONS:**

“The Code of Federal Regulations do not consider the situation of private use transport category airplanes. Greenpoint believes that the design of an airplane interior for private use, and the associated operation of the airplane in private use, should justify the exemption. In addition, Greenpoint has provided 14 CFR 25.853(d) compliant materials for all interior features installed in every arrangement except the two club table surfaces. This provides the occupants an acceptable level of safety for the intended use of the airplane.”

### **Federal Register publication**

The petitioner requested that the FAA waive the requirement that we publish a summary of the petition for public comment. Because this exemption is effectively identical to previous petitions for which no public comments were received, we have determined that good cause exists for not delaying the processing of this petition for the public comment process.

### **The FAA’s analysis**

As more and more transport category airplanes have been configured (or re-configured) for private use, the FAA has given considerable attention to the issue of appropriate regulation of such airplanes. Some of the current regulations governing design certification of transport category airplanes are not compatible with private use of such airplanes. Because of this, we have received a number of petitions for exemption from certain regulations. We have granted such exemptions when we find that to do so is in the public interest and does not adversely affect the level of safety provided by the regulations. We recently published a notice of proposed rulemaking (NPRM), Notice No. 07-13, Special Requirements for Private Use Transport Category Airplanes (72 FR 38732, July 13, 2007), which, if promulgated, would significantly

reduce the need for case-by-case review of individual petitions for exemption for private use airplanes.

With respect to the flammability of interior materials, the petitioner has accurately summarized the requirements. The petitioner correctly notes that the requirements are related to prolonging the time available for evacuation.

In promulgating the existing rulemaking regarding evacuation, the FAA did incorporate a discriminant based on passenger capacity that was intended to address smaller airplanes. These smaller airplanes have a ratio of exits to passengers that is typically quite good and where the evacuation times are expected to be quite low. Under these conditions the benefits of improved materials were expected to be negligible. The airplane type discussed in the petition was not envisioned by the rulemaking, i.e., a large fuselage size with low passenger count. The FAA has considered the issue of the evacuation capability of the airplane relative to the flammability of the materials, and finds that there may be some relief possible. However, the issue of flammability is not limited to post-crash scenarios, and the in-flight fire threat must also be addressed. The FAA notes that the petitioner has requested the exemption for only the 35-passenger configuration. The FAA also notes that only two club tables do not meet the requirements and that the other large panels in the airplane comply with heat release and smoke emission criteria.

Since the main benefit of improved interior materials is to lengthen the time available for evacuation, an arrangement that effectively provides the same evacuation capability would satisfy much of the concerns addressed by the requirement, albeit indirectly. The FAA has reviewed the full-scale fire test data used to develop the heat release requirements, as well as considered accident data relevant to this issue.

The petitioner argues that with the limited number of passengers on the airplane (maximum of 35 passengers) an evacuation of the airplane would occur much faster than on a typical Boeing Model 737-700 series airplane operated by an airline. Therefore, the petitioner proposes that an acceptable level of safety can be obtained for this airplane, with two club tables installed that do not meet the requirements of § 25.853(d). The FAA agrees with the proposal to the extent that the petitioner can demonstrate that evacuation of the airplane can be achieved in a time less than the 90 seconds allowed by the regulations for a fully compliant interior. As proposed in the notice of proposed rulemaking, compliance with Appendix F, parts IV and V is not required, if it can shown (be test or analysis) that evacuation of all occupants can be accomplished in 45 seconds or less.

### **The FAA's decision**

In consideration of the foregoing, I find that a grant of exemption 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, Greenpoint Technologies, Inc., is hereby granted an exemption from 14 CFR 25.853(d), Amendment 25-72. The petition is granted to the extent necessary to allow Greenpoint Technologies, Inc., to install an executive interior on Boeing 737-700C airplane serial number 36756, when operated in "private use," i.e., not for hire, not for common carriage.

Specifically, the exemption allows relief from the requirement to comply with the requirements of § 25.853(d) for the 35-passenger interior arrangement of this airplane.

This exemption is subject to the following conditions:

1. It must be shown that the airplane can be evacuated in 45 seconds or less under the conditions specified in Appendix J of part 25.
2. The airplane is not operated for hire or offered for common carriage. This provision does not preclude the operator from receiving remuneration to the extent consistent With 14 CFR parts 125 and 91, subpart F, as applicable.

Issued in Renton Washington, on October 1, 2008.

/s/

Ali Bahrami  
Manager  
Transport Airplane Directorate  
Aircraft Certification Service