



## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 25

[Docket No. FAA-2025-2416; Special Conditions No. 25-884-SC]

#### **Special Conditions: H4 Aerospace (UK) Ltd, The Boeing Company Model 757-200 Series Airplane; Seats With Non-Traditional, Large, Non-Metallic Panels**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final special conditions; request for comments.

**SUMMARY:** These special conditions are issued for The Boeing Company (Boeing) Model 757-200 series airplane. This airplane, as modified by H4 Aerospace (UK) Ltd (H4 Aerospace), will have a novel or unusual design feature when compared to the state of technology envisioned in the airworthiness standards. This design feature is associated with seats that include non-traditional, large, non-metallic panels. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

**DATES:** This action is effective on H4 Aerospace on [INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Send comments on or before [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** Send comments identified by Docket No. FAA-2025-2416 using any of the following methods:

- *Federal eRegulations Portal:* Go to [www.regulations.gov](http://www.regulations.gov) and follow the online instructions for sending your comments electronically.
- *Mail:* Send comments to Docket Operations, M-30, U.S. Department of Transportation (DOT), 1200 New Jersey Avenue, SE, Room W12-140, West Building Ground Floor, Washington, DC, 20590-0001.

- *Hand Delivery or Courier:* Take comments to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- *Fax:* Fax comments to Docket Operations at 202-493-2251.

*Docket:* Background documents or comments received may be read at [www.regulations.gov](http://www.regulations.gov) at any time. Follow the online instructions for accessing the docket or go to Docket Operations in Room W12-140 of the West Building Ground Floor at 1200 New Jersey Avenue, SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Alan Sinclair, Cabin Safety, AIR-624, Technical Policy Branch, Policy and Standards Division, Aircraft Certification Service, Federal Aviation Administration, 2200 South 216th Street, Des Moines, Washington 98198; telephone (206) 231-3215; e-mail [alan.sinclair@faa.gov](mailto:alan.sinclair@faa.gov).

**SUPPLEMENTARY INFORMATION:**

The FAA has published substantially identical special conditions in the *Federal Register* for public comment in several prior instances with no substantive comments received. Therefore, the FAA finds, pursuant to 14 CFR 11.38(b), that new comments are unlikely, and notice and comment prior to this publication are unnecessary.

**Privacy**

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in title 14, Code of Federal Regulations (14 CFR) 11.35, the FAA will post all comments received without change to [www.regulations.gov](http://www.regulations.gov), including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about these special conditions.

**Confidential Business Information**

Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to these special conditions contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to these special conditions, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and the indicated comments will not be placed in the public docket of these proposed special conditions. Send submissions containing CBI to the individual listed in the For Further Information Contact section above. Comments the FAA receives, which are not specifically designated as CBI, will be placed in the public docket for these proposed special conditions.

### **Comments Invited**

The FAA invites interested people to take part in this rulemaking by sending written comments, data, or views. The most helpful comments reference a specific portion of the special conditions, explain the reason for any recommended change, and include supporting data.

The FAA will consider all comments received by the closing date for comments. The FAA may change these special conditions based on the comments received.

### **Background**

On September 3, 2021, H4 Aerospace (UK) Ltd applied for a supplemental type certificate for installing seats that include non-traditional, large, non-metallic panels in a Boeing 757-200 series airplane. The Boeing Model 757-200 series airplane, currently approved under Type Certificate No. A2NM, is a twin-engine transport category airplane, with seating provisions for up to 239 passengers and a maximum take-off weight of 220,000 pounds.

## **Type Certification Basis**

Under the provisions of title 14, Code of Federal Regulations (14 CFR) 21.101, H4 Aerospace must show that the Boeing Model 757-200 series airplane, as changed, continues to meet the applicable provisions of the regulations listed in Type Certificate No. A2NM or the applicable regulations in effect on the date of application for the change, except for earlier amendments as agreed upon by the FAA.

If the Administrator finds that the applicable airworthiness regulations (e.g., 14 CFR part 25) do not contain adequate or appropriate safety standards for the Boeing Model 757-200 series airplane because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

Special conditions are initially applicable to the model for which they are issued. Should the applicant apply for a supplemental type certificate to modify any other model included on the same type certificate to incorporate the same novel or unusual design feature, these special conditions would also apply to the other model under § 21.101.

In addition to the applicable airworthiness regulations and special conditions, the Boeing Model 757-200 series airplane must comply with the exhaust-emission requirements of 14 CFR part 34, and the noise-certification requirements of 14 CFR part 36.

The FAA issues special conditions, as defined in 14 CFR 11.19, in accordance with § 11.38, and they become part of the type certification basis under § 21.101.

### **Novel or Unusual Design Features**

The Boeing Model 757-200 series airplane will incorporate the following novel or unusual design feature:

Seats that incorporate non-traditional, large, non-metallic panels in lieu of the traditional metal frame covered by fabric.

## Discussion

In the early 1980s, the FAA conducted extensive research on the effects of post-crash flammability in the passenger cabin. As a result of this research and service experience, the FAA adopted new standards for interior surfaces associated with large surface-area parts. Specifically, the rules require measurement of heat release and smoke emission (part 25, Appendix F, parts IV and V) for the affected parts. Heat release has been shown to have a direct correlation with post-crash fire-survival time. Materials that comply with the standards (i.e., § 25.853 entitled “Compartment interiors” as amended by Amendment 25-61 and Amendment 25-66) extend survival time by approximately two minutes over materials that do not comply.

At the time these standards were written, the potential application of the requirements of heat release and smoke emission to seats was explored. The seat frame itself was not a concern because it was primarily made of aluminum and included only small amounts of non-metallic materials. The FAA determined that the overall effect of these materials on survivability was negligible, whether or not the non-metallic materials met the heat-release and smoke-emission requirements. The requirements, therefore, did not address seats. The preambles to both the Notice of Proposed Rule Making (NPRM) No. 85-10 (50 FR 15038, April 16, 1985), and the Final Rule at Amendment 25-61 (51 FR 26206, July 21, 1986), specifically note that seats were excluded because the recently-adopted standards for flammability of seat cushions will greatly inhibit involvement of the seats in a cabin fire.

Subsequently, the Final Rule at Amendment 25-83 (60 FR 6615, March 6, 1995) clarified the definition of minimum panel size: “It is not possible to cite a specific size that will apply in all installations; however, as a general rule, components with exposed-surface areas of one square foot or less may be considered small enough that they do not have to meet the new standards. Components with exposed-surface areas greater than two square feet may be considered large enough that they do have to meet the new standards. Those with exposed-surface areas greater than one square foot, but less than two square feet, must be considered in

conjunction with the areas of the cabin in which they are installed before a determination could be made.”

On October 17, 1997, the FAA issued Policy Memorandum PS-ANM100-97-112-39, “Guidance for Flammability Testing of Seat/Console Installations,” (<https://drs.faa.gov/browse>). That memo was issued when it became clear that seat designs were evolving to include large, non-metallic panels with surface areas that would impact survivability during a cabin fire event, comparable to partitions or galleys. The memo noted that large-surface-area panels must comply with heat-release and smoke-emission requirements, even if they were attached to a seat. If the FAA had not issued such policy, seat designs could have been viewed as a loophole to the airworthiness standards that would result in an unacceptable decrease in survivability during a cabin fire event.

In October 2004, the FAA focused attention on the appropriate flammability standards for passenger seats that incorporated non-traditional, large, non-metallic panels in lieu of the traditional fabric-covered metal. The FAA reviewed this design and determined that it represented the kind and quantity of material that should be required to pass the heat-release and smoke-emissions requirements. The FAA determined that special conditions would be issued to apply the standards defined in § 25.853(d) to seats designed with large, non-metallic panels.

These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

### **Applicability**

As discussed above, these special conditions are applicable to the Boeing Model 757-200 series airplane as modified by H4 Aerospace. Should H4 Aerospace apply at a later date for a supplemental type certificate to modify any other model included on Type Certificate No. A2NM to incorporate the same novel or unusual design feature, these special conditions would apply to that model as well.

## **Conclusion**

This action affects only a certain novel or unusual design feature on one model of airplane. It is not a rule of general applicability and affects only the applicant who applied to the FAA for approval of these features on the airplane.

## **List of Subjects in 14 CFR Part 25**

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

## **Authority Citation**

The authority citation for these special conditions is as follows:

**Authority:** 49 U.S.C. 106(f), 40113, 44701, 44702, and 44704.

## **The Special Conditions**

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type-certification basis for Boeing Model 757 series airplanes modified by H4 Aerospace (UK) Ltd.

1. Except as provided in paragraph 3 of these special conditions, compliance with 14 CFR part 25, Appendix F, parts IV and V, heat release and smoke emission, is required for seats that incorporate non-traditional, large, non-metallic panels that may either be a single component or multiple components in a concentrated area in their design.
2. The applicant may designate up to and including 1.5 square feet of non-traditional, non-metallic panel material per seat place that does not have to comply with special condition (1). A triple-seat assembly may have a total of 4.5 square feet excluded on any portion of the assembly (e.g., outboard-seat place 1 square foot; middle, 1 square foot; and inboard, 2.5 square feet).
3. Seats do not have to meet the test requirements of 14 CFR part 25, Appendix F, parts IV and V, when installed in compartments that are not otherwise required to meet these requirements.

Issued in in Kansas City, Missouri, on September 18, 2025.

Patrick R. Mullen,  
Manager, Technical Policy Branch,  
Policy and Standards Division,  
Aircraft Certification Service.

[FR Doc. 2025-18359 Filed: 9/22/2025 8:45 am; Publication Date: 9/23/2025]