

## **Equivalent Safety Finding on JAR/CS 25.853(a) – “Flammability Testing Hierarchy”**

### **Applicable to Boeing 737-600/700/-800/-900/-900ER**

**737-7/-8/-9/-10**

**747-8**

**767-300**

**777-200LR/-300ER/-8/-9**

**787-8/-9/-10**

### **Introductory Note:**

The hereby presented Equivalent Safety Finding has been classified as an important Equivalent Safety Finding and as such shall be subject to public consultation, in accordance with EASA Management Board decision 12/2007 dated 11 September 2007, Article 3 (2.) of which states:

*"2. Deviations from the applicable airworthiness codes, environmental protection certification specifications and/or acceptable means of compliance with Part 21, as well as important special conditions and equivalent safety findings, shall be submitted to the panel of experts and be subject to a public consultation of at least 3 weeks, except if they have been previously agreed and published in the Official Publication of the Agency. The final decision shall be published in the Official Publication of the Agency."*

### **Statement of Issue:**

Boeing has requested the use of the data generated to show compliance with JAR/CS 25.853(d) and Appendix F Part IV, to substantiate also compliance with JAR/CS 25.853(a) and Appendix F Part I for the same interior panel constructions.

JAR/CS 25.853(a) requires that, for each compartment occupied by the crew or passengers, materials (including finishes or decorative surfaces applied to the materials) must meet the applicable test criteria prescribed in Part I of Appendix F or other approved equivalent methods, regardless of the passenger capacity of the aeroplane.

The Equivalent Safety Finding (ESF) request is based on one of the Aviation Rulemaking Advisory Committee (ARAC) recommended revisions to Title 14, Code of Federal Regulations (14 CFR) 25.853 (ARAC Recommendation, Materials Flammability Working Group, ARAC TAEIG “Materials Flammability Working Group Report”, July 9th, 2012).

EASA has been involved in the activities of the above mentioned ARAC working group and in the development of all the recommended revisions to 25.853 that are documented in the final report delivered by the working group to ARAC.

The concept of hierarchy of testing outlined in the report has a significantly broader scope compared to the ESF request submitted by Boeing. EASA intends to introduce a more comprehensive and structured hierarchy of testing only through the rulemaking task that, based on the ARAC Working Group report, will introduce a new structure of CS 25.853 and CS 25 Appendix F.

The proposed ESF will contribute to reduce the number of flammability tests conducted to show compliance with JAR/CS 25.853 requirements.

**Equivalent Safety Finding D-GEN7 on JAR/CS 25.853(a)**

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**Applicant Safety Equivalency Demonstration:**

The compensating factors/features that provide an ESF for the regulations not complied with are as follows:

- Correlation of test results

Boeing has provided test data showing correlation between the results of tests conducted per Part I and Part IV of CS 25 Appendix F.

If a certain panel construction meets the heat release rate requirements, then it will have an acceptable performance in the Bunsen Burner test.

As a consequence, panels that, according to CS 25.853, are required to be tested per Appendix F Parts I, IV and V need only be tested per Parts IV and V.