

EASA	COMMENT RESPONSE DOCUMENT
	SC on In-Flight Fire Resistance of Composite Fuselage Material Applicable to B787 Issue 1

Commenter 1 : CAA-UK

Comment # 1 –

The Special Condition appears to be deficient and/or confusing with respect to the following:

- (i) There is insufficient background information to assess the derivation of the technical requirements. The wording in 'Statement of Issue' is inadequate.
- (ii) Both the background and test method are described in the FAA Issue Paper CS-15 which was closed in January 2006. It is unfortunate that the EASA Special Condition is being circulated for comment now.
- (iii) There is insufficient description of the test method and the pass/fail criteria. The text is misleading with respect to the actual test method, specifically which FAA and Boeing appear to have agreed on the 'foam block' ignition test rather than the radiant panel test of Appendix F Part VI, which is suggested in the EASA text.
- (iv) The Special Condition should include the above mentioned information to ensure that the means of compliance are on record for application to other forthcoming projects.
- (v) The actual 'final' Special Condition as stated is identical to that of the FAA Issue Paper. However, the FAA position is backed up by the Issue Paper preamble containing the background and test method details as negotiated between Boeing and FAA. The final EASA Special Condition, by itself, is quite insufficient, particularly with respect to what is meant by 'flame propagation' (e.g. test method) and required assessment of the 'products of combustion, beyond the test heat source'.

In summary, under a normal rulemaking process, the new rule (which is what a Special Condition is essentially) would be available for

consultation either before or during the early stages of design development and it would be supported by acceptable means of compliance, interpretation and background information - none of this appears to have occurred in this case.

EASA response:

Comments (1)

- (i) EASA considers that the statement of issue clearly explains and justifies CRI D-16 to be raised. However EASA agrees with CAA-UK comment that detailed reference technical information is needed to assess the derivation of the technical requirements proposed in this CRI. This information would normally be proposed in a Background section. However since this information entirely corresponds to the FAA activities performed to develop FAR25.856(a) requirement, it is considered that reference to IP CS-15 is sufficient and adequate. EASA note that reference to the published version of the IP (i.e. SC 25-360-SC) would have nevertheless provided a formally more acceptable reference for the background information but the change is considered as not significant enough to justify re-opening of the CRI.
- (ii) The FAA Special Condition SC25-360-SC, corresponding to IP CS-15 was published in the Federal Register in August 2007, which means ample time has elapsed to analyse the related technical data. EASA does not consider the comment relevant.
- (iii) EASA agrees with CAA-UK comment that MOC and pass/fail are relevant information in this matter since a specific test method (foam block test) was introduced in the course of test method discussions. However this information is not relevant to the Special Condition CRI D-16 since it is not intended to set Means of Compliance and therefore does not need to identify test methods and pass/fail. However as stated in the SC CRI D-16, EASA has adopted the FAA IP CS-15 where the FAA IP where the test methods are fully described, therefore the certification process in this matter has nevertheless been adequately defined. Furthermore EASA has open CAI 02-08-10 closed at issue 2 (August 27, 2009) to follow-up on the pass/fail of the retained test method.
- (iv) EASA has adopted the FAA SC and therefore future applicants will have access to all the background associated to this SC. In any case, EASA will discuss directly with applicants on such subject.
- (v) The Special Condition CRI D-16 is not intended to set Means of Compliance and therefore does not need to identify test methods and pass/fail. The reference to combustion product is a general requirement and is not tied to a specific test method.