

European Aviation Safety Agency

**Comment Response Document (CRD)
on Consultation paper nr. 15 of 19 August 2003**

**CS-34
Certification Specifications for aircraft engine emissions
and fuel venting**

Foreword to the Comment Response document (CRD)

To give a rapid overview of the CRD, the following keywords were used in responding to comments:

- “Carried”: The proposed amendment is wholly transferred to the revised text.
- “Noted”: The comment is acknowledged and where needed the text has been improved.
- “Deferred”: The comment requires further assessment by the Agency under its future rulemaking programme.
- “Disagreed”: The comment is not shared by the Agency.

CRD - Explanatory Note CS-34

General Comments

Para.

78 / FAA, USA

Comment

The sixth paragraph of Attachment 1 of the Explanatory memoranda for the proposed draft Acceptable means of Compliance (AMC) for Aircraft Engine Emissions (AMC-34) and Aircraft Noise (AMC-36) states that AMC-34 and 36 have not been given the status of Certification Specifications (CS's), reason being that 21A.18 specifically states that the Agency should provide for acceptable means of compliance.

However, section I(2) of the body of the General Explanatory Memorandum indicates that CS's include acceptable means of compliance. Section I(2) further defines acceptable means of compliance as non-exclusive means of demonstrating compliance with airworthiness codes or implementing rules. Given that 21A.18 states that the Agency shall issue certification specifications providing for acceptable means to demonstrate compliance, the reason for not giving AMC 34 and AMC 36 the status of a CS is not completely apparent. For example, CS 25 Book 2 contains acceptable means of compliance associated with turbine powered large airplane certification. An explanation of why the noise and emissions certification requirements were not structured in the same manner as CS 25 should be given. Also, an explanation as to whether there is any difference in status between AMC contained within a CS (e.g., CS 25 Book 2) compared with AMC not contained within a CS (e.g., AMC-34/36) should be given.

Response

Noted.

It is agreed that the structure of all CS should be consistent.

Therefore the document concerning emissions will be renamed CS-34 "Aircraft Engine Emissions and Fuel Venting" in accordance with 21A.18(c), and a Book 1 is introduced stating the following:

"CS 34.1 Fuel venting

The aircraft must be designed to comply with the applicable fuel venting requirements defined under 21A.18(b)(1).

CS 34.2 Engine emissions

(See AMC 34.2 and GM 34.2)

The engine must be designed to comply with the applicable emission requirements defined under 21A.18(b)(2) and (3). "

The proposed AMC and GM will remain as Book 2 and will be renumbered AMC 34.2 and GM 34.2.

The new Book 1 provisions are derived from the proposed CS-E 1010 and 1020 which already have been consulted upon. Therefore no additional consultation is felt to be necessary.

The document concerning noise will be renamed CS-36 "Aircraft Noise" in accordance with 21A.18(c), and a Book 1 is introduced stating the following:

"CS 36.1 Aircraft noise

(See AMC 36.1 and GM 36.1)

The aircraft must be designed to comply with the applicable noise requirements defined under 21A.18(a).

The proposed AMC and GM will remain as Book 2 and will be renumbered AMC 36.1 and GM 36.1.

The new Book 1 provisions were drafted to be consistent with CS-34 Book 1.

Para. Paragraph 2

80 / CAA, UK

Comment

This paragraph refers to "airworthiness codes". Does this term also encompass environmental protection codes? If so, this needs to be made clear to avoid confusion.

Response

Noted.

Compliance with the environmental protection requirements is a prerequisite for type design approval. Therefore the generic term "airworthiness code" also includes environmental protection requirements.

CRD - CS-34

General Comments

Para.

87 / Airbus, France

Comment

The cross-referencing should be enhanced by a summary table of what the ICAO chapters cover, in order to assist the reader

Response

Noted.
The desired cross-referencing is provided for in 21A.18.

AMC-34

Para.

82 / CAA, Sweden

Comment

Since the proposed acceptable means of compliance contain regulatory material, which essentially is identical to the content of the corresponding JARs, we are in favour of the proposed material.
However, should the proposals not have the same content as those JARs, there must be possibility to rediscuss such items.

Response

Noted.

Para. (a)

80 / CAA-UK

Comment

ICAO Annex 16, Volume II, Appendix 1 is entitled "Measurement of reference pressure ratio", while the AMC refers to "engine pressure ratio". In order to be consistent with ICAO and the definitions in Chapter 1, the AMC text should be changed to reflect that of the Annex.

Response

Carried.