



Comment-Response Document 2015-15

Additional airworthiness specifications for operations: thermal/acoustic insulation materials

CRD TO NPA 2015-15 — RMT.0071 (26.004) — 19.5.2016

Related Opinion: 04/2016

EXECUTIVE SUMMARY

The aim of rulemaking task RMT.0071 (26.004) is to improve the protection of occupants on board large commercial air transport (CAT) aeroplanes in case of in-flight or post-crash fire.

The related Notice of Proposed Amendment (NPA) 2015-15 proposed, within the new framework introduced by Part-26 and CS-26, the introduction of additional airworthiness requirements and specifications for operations in order to make CS 25.856 specifications applicable also to newly produced aircraft of already certified types.

This Comment-Response Document (CRD) contains the comments received on NPA 2015-15 and the responses, as well as a summary thereof, provided thereto by EASA.

Based on the comments and responses, the production cut-in option was confirmed and the relevant Opinion No 04/2016 has been developed.

For information, EASA publishes the draft Decision (CS-26) in this CRD. The proposed amendments to the implementing rule (IR) are contained in the related Opinion No 04/2016, which is published in parallel with this CRD.

Applicability		Process map	
Affected regulations and decisions:	Regulation (EU) 2015/640 (Part-26); ED Decision 2015/013/R (CS-26)	Terms of reference (Issue 2):	18.9.2014
Affected stakeholders:	Operators and type certificate holders of already type-certified large aeroplanes; modifiers of large aeroplanes; manufacturers of insulation blankets	Concept paper:	No
Driver/origin:	Safety	Rulemaking group:	No
Reference:	NPA 2008-13 'Thermal/Acoustic Insulation Material'; Notice of Proposed Rulemaking (NPRM) 'Improved Flammability Standards for Thermal/Acoustic Insulation Materials Used in Transport Category Airplanes'; Decision No 2009/010/R	RIA type:	Light
		Technical consultation during NPA drafting:	Yes
		Publication date of the NPA:	1.10.2015
		Duration of NPA consultation:	3 months
		Review group:	No
		Focused consultation:	No
		Publication date of the Opinion:	2016/Q3
		Publication date of the Decision:	2017/Q3



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1. Procedural information

1.1. The rule development procedure

The European Aviation Safety Agency (hereinafter referred to as the 'Agency') developed this CRD in line with Regulation (EC) No 216/2008¹ (hereinafter referred to as the 'Basic Regulation') and the Rulemaking Procedure².

This rulemaking activity is included in the Agency's [5-year Rulemaking Programme](#) under RMT.0071 (26.004). The scope and timescales of the task were defined in the related [terms of reference](#) (ToR).

The draft regulation, certification specifications (CS) and guidance material (GM) have been developed by the Agency. All interested parties were consulted through NPA 2015-15³, which was published on 1 October 2015. 7 comments were received from 6 interested parties, including industry and national aviation authorities (NAAs).

The text of this CRD has been developed by the Agency.

The process map on the title page contains the major milestones of this rulemaking activity.

1.2. The structure of this CRD and related documents

This CRD provides a summary of comments and responses as well as the full set of individual comments (and the responses thereto) received on NPA 2015-15. The draft decision text is provided in Chapter 3 of this CRD.

1.3. The next steps in the procedure

The Agency publishes this CRD in parallel with Opinion No 04/2016, which contains proposed changes to European Union regulations. The Opinion is addressed to the European Commission, which shall use it as a technical basis in order to prepare a legislative proposal.

The decision containing the CS and GM will be published by the Agency when the related IR is adopted by the European Commission.

¹ Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1).

² The Agency is bound to follow a structured rulemaking process as required by Article 52(1) of the Basic Regulation. Such a process has been adopted by the Agency's Management Board and is referred to as the 'Rulemaking Procedure'. See Management Board Decision 01-2012 of 13 March 2012 concerning the procedure to be applied by the Agency for the issuing of opinions, certification specifications and guidance material (Rulemaking Procedure).

³ <http://easa.europa.eu/system/files/dfu/NPA%202015-15.pdf>



2. Summary of comments and responses

7 comments in total were received on NPA 2015-15 from 4 authorities (the US Federal Aviation Administration (FAA) and 3 European Union (EU) national aviation authorities (NAAs)), 1 European organisation, and 1 aircraft manufacturer.

- 5 comments expressing support or no concern about the proposed requirements have been noted.
- 2 comments proposing slight changes to the text in Part-26 (objective) and CS-26 (means of compliance) have not been accepted. The Agency clarified the purpose of the requirements of Part-26 (objective) and the specifications of CS-26 (means of compliance to the objective).

The 3 responding EU NAAs expressed no concern about the production cut-in option proposed by the Agency.

In the regulatory impact assessment (RIA) included in the NPA, the Agency addressed the following questions to the stakeholders:

Questions to stakeholders

- 1) What is the share of your fleet which is today compliant with the draft requirements set out in Chapter 3?
- 2) If your fleet is not fully compliant with the draft requirements set out in Chapter 3, what is the estimated unit cost per a retrofitted aircraft?

No feedback was received on those questions. The Agency considers this as an additional indication that the stakeholders have no concern about the proposed requirements.



3. Resulting text

3.1. Draft Regulation (draft EASA Opinion)

The resulting rule text is provided in Opinion No 04/2016, which is published in parallel with this CRD on the Agency's website at <http://www.easa.europa.eu/document-library/opinions>.

3.2. Draft amendment to CS-26 (draft EASA Decision)

CS-26

Additional airworthiness specifications for operations

Book 1

Subpart B — Large aeroplanes

(...)

CS 26.156 Thermal/acoustic insulation materials

Compliance with point 26.156(a) and (b) is demonstrated by complying with CS 25.856(a), or equivalent.

Compliance with point 26.156(c) is demonstrated by complying with CS 25.856(b), or equivalent.



4. Individual comments and responses

In responding to comments, a standard terminology has been applied to attest the Agency's position. This terminology is as follows:

- (a) **Accepted** — The Agency agrees with the comment and any proposed amendment is wholly transferred to the revised text.
- (b) **Partially accepted** — The Agency either agrees partially with the comment, or agrees with it but the proposed amendment is only partially transferred to the revised text.
- (c) **Noted** — The Agency acknowledges the comment but no change to the existing text is considered necessary.
- (d) **Not accepted** — The comment or proposed amendment is not shared by the Agency.

(General Comments)	-
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comment	1		comment by: <i>Luftfahrt-Bundesamt</i>
		The LBA has no comments on NPA 2015-15.	
response		<i>Noted</i>	
		The Agency thanks the LBA for their review.	
comment	3		comment by: <i>EUROCONTROL</i>
		The EUROCONTROL Agency has no comment to make on NPA 2015-15.	
response		<i>Noted</i>	
		The Agency thanks EUROCONTROL for their review.	
comment	6		comment by: <i>DGAC France</i>
		DGAC France has no specific comment on this NPA	
response		<i>Noted</i>	
		The Agency thanks DGAC France for their review.	
comment	7		comment by: <i>UK CAA</i>
		Thank you for the opportunity to comment on NPA 2015-15 Additional airworthiness specifications for operations: Thermal/acoustic insulation material.	
		Please be advised that the UK CAA supports the proposals contained in the NPA.	



response *Noted*

The Agency thanks the UK CAA for their support.

Executive Summary

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comment 2

comment by: FAA

The FAA supports the incorporation of these requirements into the production fleet.

response *Noted*

The Agency thanks the FAA for their support.

3. Proposed amendments - 3.1. Draft Regulation (Draft EASA Opinion)

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comment 4

comment by: *The Boeing Company*

Page: 7
Paragraph 3.1 and 3.2

THE PROPOSED TEXT STATES:

Section 3.1:

"...(a) for aeroplanes manufactured before [two years after the effective date of the final rule], when thermal/acoustic insulation materials are installed as replacements after [two years after the effective date of the final rule], those materials shall demonstrate flame propagation resistance characteristics compatible with minimising the effects of in-flight fires;

(b) for aeroplanes manufactured after [two years after the effective date of the final rule], thermal/acoustic insulation materials shall demonstrate flame propagation resistance characteristics compatible with minimising the effects of in-flight fires;

(c) for aeroplanes manufactured after [two years after the effective date of the final rule] and with a passenger capacity of 20 or greater, thermal/acoustic insulation materials (including the means of fastening the materials to the fuselage) installed in the lower half of the aeroplane shall demonstrate flame penetration resistance characteristics compatible with minimising the effects of post-crash fires and the maintenance of survivable conditions in the cabin for a time commensurate with that needed to evacuate the aeroplane."

Section 3.2:

"...CS 26.156 Thermal/acoustic insulation materials:

Compliance with Part 26.156(a) and (b) is demonstrated by complying with CS 25.856(a), or equivalent.

Compliance with Part 26.156(c) is demonstrated by complying with CS 25.856(b), or equivalent."

REQUESTED CHANGE: Insert a reference to CS 25.856(a) in sections 3.1.(a) and 3.1.(b), and a



reference to CS 25.856(b) in section 3.1.(c), as shown below:

“(a) for aeroplanes manufactured before [two years after the effective date of the final rule], when thermal/acoustic insulation materials are installed as replacements after [two years after the effective date of the final rule], those materials shall demonstrate flame propagation resistance characteristics [to CS 25.856\(a\)](#) compatible with minimising the effects of in-flight fires;

(b) for aeroplanes manufactured after [two years after the effective date of the final rule], thermal/acoustic insulation materials shall demonstrate flame propagation resistance characteristics [to CS 25.856\(a\)](#) compatible with minimising the effects of in-flight fires;

(c) for aeroplanes manufactured after [two years after the effective date of the final rule] and with a passenger capacity of 20 or greater, thermal/acoustic insulation materials (including the means of fastening the materials to the fuselage) installed in the lower half of the aeroplane shall demonstrate flame penetration resistance characteristics [to CS 25.856\(b\)](#) compatible with minimising the effects of post-crash fires and the maintenance of survivable conditions in the cabin for a time commensurate with that needed to evacuate the aeroplane.”

JUSTIFICATION: We recommend this change in order for the CS to be fully harmonized with the parallel FAA regulation, and to ensure there is direct reference of the CS 25 requirements rather than just a general description of the requirements (e.g., “flame propagation resistance” and “flame penetration resistance”). This specific reference will ensure better compliance and less ambiguity.

response *Not accepted*

The Agency cannot propose references to CSs (soft (non-binding) law) into European Commission regulations (hard (binding) law).

Part-26 (European Commission document) contains high-level requirements, their applicability and entry into force.

CS-26 (Agency document) contains the technical details on how to comply with those high-level requirements.

In this particular case, CS 25.856(a) and (b) are recognised as means (but not necessarily the only means) to comply with the requirements in Part 26.156 (a) and (b) (for CS 25.856(a)) and in Part 26.156(c) (for CS 25.856(b)).

This is why CS 25.856 (a) and (b) are only referenced in CS-26.

Despite this structure, the Agency considers that the proposed requirements present no technical difference from the equivalent FAA regulations.

3. Proposed amendments - 3.2. Draft Certification Specifications (Draft EASA Decision)

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comment 5

comment by: *The Boeing Company*



Page: 7

Paragraph: 3.1 and 3.2

THE PROPOSED TEXT STATES:

Section 3.1:

"...(a) for aeroplanes manufactured before [two years after the effective date of the final rule], when thermal/acoustic insulation materials are installed as replacements after [two years after the effective date of the final rule], those materials shall demonstrate flame propagation resistance characteristics compatible with minimising the effects of in-flight fires;

(b) for aeroplanes manufactured after [two years after the effective date of the final rule], thermal/acoustic insulation materials shall demonstrate flame propagation resistance characteristics compatible with minimising the effects of in-flight fires;

(c) for aeroplanes manufactured after [two years after the effective date of the final rule] and with a passenger capacity of 20 or greater, thermal/acoustic insulation materials (including the means of fastening the materials to the fuselage) installed in the lower half of the aeroplane shall demonstrate flame penetration resistance characteristics compatible with minimising the effects of post-crash fires and the maintenance of survivable conditions in the cabin for a time commensurate with that needed to evacuate the aeroplane."

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Compliance with Part 26.156(c) is demonstrated by complying with CS 25.856(b), or equivalent."

REQUESTED CHANGE: Insert a reference to CS 25.856(a) in sections 3.1.(a) and 3.1.(b), and a reference to CS 25.856(b) in section 3.1.(c), as shown below:

"(a) for aeroplanes manufactured before [two years after the effective date of the final rule], when thermal/acoustic insulation materials are installed as replacements after [two years after the effective date of the final rule], those materials shall demonstrate flame propagation resistance characteristics to CS 25.856(a) compatible with minimising the effects of in-flight fires;

(b) for aeroplanes manufactured after [two years after the effective date of the final rule], thermal/acoustic insulation materials shall demonstrate flame propagation resistance characteristics to CS 25.856(a) compatible with minimising the effects of in-flight fires;

(c) for aeroplanes manufactured after [two years after the effective date of the final rule] and with a passenger capacity of 20 or greater, thermal/acoustic insulation materials (including the means of fastening the materials to the fuselage) installed in the lower half of the aeroplane shall demonstrate flame penetration resistance characteristics to CS 25.856(b) compatible with minimising the effects of post-crash fires and the maintenance of survivable conditions in the cabin for a time commensurate with that needed to evacuate the aeroplane."



JUSTIFICATION: We recommend this change in order for the CS to be fully harmonized with the parallel FAA regulation, and to ensure there is direct reference of the CS 25 requirements rather than just a general description of the requirements (e.g., “*flame propagation resistance*” and “*flame penetration resistance*”). This specific reference will ensure better compliance and less ambiguity.

response

Not accepted

The Agency cannot propose references to CSs (soft (non-binding) law) into European Commission regulations (hard (binding) law).

Part-26 (European Commission document) contains high-level requirements, their applicability and entry into force.

CS-26 (Agency document) contains the technical details on how to comply with those high-level requirements.

In this particular case, CS 25.856(a) and (b) are recognised as means (but not necessarily the only means) to comply with the requirements in Part 26.156 (a) and (b) (for CS 25.856(a)) and in Part 26.156(c) (for CS 25.856(b)).

This is why CS 25.856 (a) and (b) are only referenced in CS-26.

Despite this structure, the Agency considers that the proposed requirements present no technical difference from the equivalent FAA regulations.

