



EASA
European Aviation Safety Agency

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EASA Materials-related Rulemaking Activity

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Update on CS-25 Amendment 19

- Certification specifications for large aeroplanes have been drafted taking into account large transport aeroplanes, featuring cabin interiors equipped for the commercial carriage of relatively high numbers of passengers.
- These specifications are not always adequate for cabin interiors installed in so-called business aeroplanes, i.e. those having lower-density interiors that offer a greater level of comfort and amenities, and sometimes being non-commercially operated.
- Numerous certification review items (CRIs) are issued for each certification project involving these aeroplanes. They address repetitive issues like access to emergency exits, width of aisles, heat release, and smoke density properties of materials, interior doors, etc.

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Update on CS-25 Amendment 19

- CS-25 Amendment 19 was officially released on 12th May 2017
- EASA decided to create rulemaking task RMT.0264 with the objective to introduce in CS-25 a set of common requirements and intended interpretations (in the form of AMCs) that will establish a level playing field for all applicants with regard to the specificities of business aeroplanes, while continuing to provide an acceptable level of safety.
- CS-25 Amendment 19 has introduced:
APPENDIX S — AIRWORTHINESS REQUIREMENTS FOR NON-COMMERCIALY OPERATED AEROPLANES AND LOW-OCCUPANCY AEROPLANES.



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S25.1 General

- (a) *Applicability:* unless otherwise specified within, the requirements of this Appendix are applicable to the passenger or crew compartments (interiors) of:
- (1) non-commercially operated aeroplanes with a passenger seating configuration of:
 - (i) up to and including 19 passengers; or
 - (ii) up to and including one half of the maximum passenger seating capacity of the type-certified aeroplane as indicated in the aeroplane type certificate data sheet (TCDS), provided that:
 - (A) the total number of passengers approved for occupancy during taxiing, take-off or landing does not exceed 150 per deck; and
 - (B) the total number of passengers approved for occupancy during taxiing, take-off or landing on a deck does also not exceed one half of the maximum passenger seating capacity for that deck as indicated in the aeroplane TCDS.
 - (2) low-occupancy aeroplanes irrespective of the type of operations (commercial or non-commercial). A low-occupancy aeroplane is defined as an aeroplane which has a passenger seating configuration of:
 - (i) up to and including 19; or
 - (ii) up to and including one third of the maximum passenger seating capacity of the type-certified aeroplane as indicated in the aeroplane TCDS, provided that:
 - (A) the total number of passenger seats approved for occupancy during taxiing, take-off, or landing does not exceed 100 per deck; and
 - (B) the total number of passenger seats approved for occupancy during taxiing, take-off, or landing in any individual zone between pairs of emergency exits (or any dead end zone) does also not exceed one-third of the sum of the passenger seat allowances for the emergency exit pairs bounding that zone, using the passenger seat allowance for each emergency exit pair as defined by the applicable certification basis of the aeroplane. For the purpose of determining compliance with this zonal limitation, in the case of an aeroplane which has deactivated emergency exits, it shall be assumed that all emergency exits are functional.
- (b) *Aeroplane Flight Manual (AFM) Limitation:* if compliance with any part of this Appendix limits the aeroplane to non-commercial operations, this limitation must be included in the 'Limitations' Section of the AFM.



S25.20 Emergency Evacuation

(a) *Flammability Requirements*

- (1) Mattresses of permanent bed installations that are located in compartments isolated from the main passenger cabin by doors or equivalent means that would normally be closed during taxiing, take-off, and landing do not need to meet the 'Oil Burner Test' requirement of Appendix F, Part II as required by CS 25.853(c) (See AMC to Appendix S, S25.20(a)(1)).
- (2) On non-commercially operated aeroplanes only, compliance with CS 25.853(d) does not need to be demonstrated if it can be shown by test or a combination of test and analysis under the conditions specified in Appendix J that the maximum time for evacuation of all occupants does not exceed 45 sec.



AMC to Appendix S, S25.20(a)(1) Flammability of Bed Mattresses

Mattresses of beds that are convertible to/from seats, regardless of their location in the aeroplane, and irrespective of whether or not the seat configuration is approved for occupancy during taxiing, take-off, and landing, should meet the criteria of CS-25, Appendix F, Part II.

As required by CS-25, Appendix F, mattress foam shall be tested for 12,7-mm (1/2-in.) thickness. If the mattress consists of two or more foams glued together, the foam specimen should consist of two 6,34-mm (1/4-in.) (three layers of 4,2 mm (1/6 in.), etc.) pieces glued together. Three specimens should be made for each combination of foams that are glued together in the production mattress. Any other production mattress components that are glued together should also be tested together.

If such specimens do not meet the test criteria of CS-25, Appendix F, Part I, it is acceptable to test each production mattress component separately, including a sheet of glue, using the test criteria of Appendix F, Part I.

Additionally, the Bunsen burner is then to be applied at three separate corners of the production mattress with all its components. The three-corner test does not need to be conducted if the cushion passes the tests of CS-25, Appendix F, Part II.



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Any Questions?

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