

European Aviation Safety Agency

Certification Specifications

and

Guidance Material

for

**Additional airworthiness specifications
for operations**

CS-26

Issue 2

27 February 2019¹

¹ For the date of entry into force of this Amendment, please refer to Decision 2019/006/R in the [Official Publication](#) of EASA.

CONTENTS

CS-26 — ADDITIONAL AIRWORTHINESS SPECIFICATIONS FOR OPERATIONS

BOOK 1 — CERTIFICATION SPECIFICATIONS

SUBPART A — GENERAL PROVISIONS

CS 26.1 Purpose and scope

SUBPART B — LARGE AEROPLANES

CS 26.50 Seats, berths, safety belts, and harnesses

[CS 26.60 Emergency landing - dynamic conditions](#)

CS 26.100 Location of emergency exits

CS 26.105 Emergency exit access

CS 26.110 Emergency exit markings

CS 26.120 Interior emergency lighting and emergency light operation

CS 26.150 Compartment interiors

[CS 26.156 Thermal/acoustic insulation materials](#)

CS 26.155 Flammability of cargo compartment liners

CS 26.160 Lavatory fire protection

[CS 26.170 Fire extinguishers](#)

CS 26.200 Landing gear aural warning

[SUBPART C — LARGE ROTORCRAFT](#)

[CS 26.400 Fire extinguishers](#)

APPENDIX F

Part I — Test Criteria and Procedures

Part II — Flammability of Seat Cushions

Part III — Test Method to Determine Flame Penetration Resistance of Cargo Compartment Liners

Part IV — Test Method to Determine the Heat Release Rate From Cabin Materials Exposed to Radiant Heat

Part V — Test Method to Determine the Smoke Emission Characteristics of Cabin Materials

BOOK 2 — GUIDANCE MATERIAL

SUBPART A — GENERAL PROVISIONS

GM1 26.1 JAR-26 / JAR/CS-25 / FAR-25+121 / OPS / Part-26 / CS-26 / GM-26 cross-reference table

GM2 26.1 Demonstration of compliance

SUBPART B — LARGE AEROPLANES

GM1 26.50(c) Cabin crew seat location with respect to injury risk

[GM1 26.60 Emergency landing — dynamic conditions](#)

GM1 26.110(d) Universal symbolic exit signs

GM1 26.110(e)(4) Emergency Exit Markings

GM1 26.150(a) Compartment interiors

GM1 26.150(c) Compartment interiors

GM1 26.150(d) Compartment interiors

GM1 26.156(a) Insulation materials installed as replacements

GM1 26.170(b) Fire extinguishers

PREAMBLE

CS-26 Issue 2

Effective: See Decision 2019/006/R

The following is a list of the paragraphs that are affected by this Amendment.

Book 1 – CERTIFICATIONS SPECIFICATIONS

Subpart B

- CS 26.50 Editorial change
- CS 26.60 Created (NPA 2013-20)
- CS 26.100 Editorial change
- CS 26.105 Editorial change
- CS 26.110 Editorial change
- CS 26.120 Editorial change
- CS 26.150 Editorial change
- CS 26.155 Editorial change
- CS 26.156 Created (NPA 2015-15)
- CS 26.100 Editorial change
- CS 26.170 Created (NPA 2014-26)
- CS 26.200 Editorial change
- CS 26.400 Editorial change

Subpart C

- CS 26.400 Created (NPA 2014-26)

Book 2 – GUIDANCE MATERIAL

Subpart A

- GM1 CS 26.1 Amended (NPA 2013-20)
- GM1 CS 26.60 Created (NPA 2013-20)

Subpart B

- GM1 CS 26.156(a) Created (NPA 2015-15)
- GM1 CS 26.170(b) Created (NPA 2014-26)

CS-26 BOOK 1

CS-26

Book 1

Certification Specifications

**Additional airworthiness specifications
for operations**

SUBPART A — GENERAL PROVISIONS

CS 26.1 Purpose and scope

This CS is the standard means to show compliance of products with the requirements of Annex I (Part-26) to Commission Regulation (EU) 2015/640. (See GM1 26.1 and GM2 26.1)

SUBPART B — LARGE AEROPLANES

CS 26.50 Seats, berths, safety belts, and harnesses

Compliance with 26.50 of Part-26 is demonstrated by complying with CS 25.785(g), (h), (j) & (k) of CS-25, or equivalent or with the following:

- (a) Each seat at a flight deck station is equipped with a combined safety belt and shoulder harness with a single-point release that permits the flight deck occupant, when seated with safety belt and shoulder harness fastened, to perform all of the occupant's necessary flight deck functions. There must be a means to secure each combined safety belt and shoulder harness, when not in use, to prevent interference with the operation of the aeroplane and with rapid egress in an emergency. Shoulder harness and combined safety belt and shoulder harness that were approved and installed prior to 6 March 1980 may continue to be used. Safety belt and shoulder harness restraint systems may be designed to the inertia load factors established under the certification basis of the aeroplane.
- (b) Each seat for a cabin crew member required by Part-ORO.CC.100, located in passenger compartments:
 - (1) is equipped with a restraint system consisting of a combined safety belt and shoulder harness unit with a single point release. Each combined safety belt and shoulder harness is equipped with a means to secure it, when not in use, to prevent interference with rapid egress in an emergency;
 - (2) to the extent possible, without compromising their proximity to required floor level emergency exits, is located to provide a direct view of the cabin area for which the cabin crew member is individually responsible, except that for aeroplanes with a certification basis prior to JAR 25.785 at Change 8 (or FAR Part 25, §25.785, at Amendment 25-51 respectively), cabin crew member seats need not be re-located to meet that condition if an indirect view into the passenger cabin is given by a mirror;
 - (3) is:
 - (i) either forward or rearward facing, with an energy absorbing rest that is designed to support the arms, shoulders, head, and spine; and
 - (ii) positioned so that when not in use they do not interfere with the use of passageways and exits.

Combined safety belt and shoulder harness that were approved and installed prior to 6 March 1980 may continue to be used. Safety belt and shoulder harness restraint systems may be designed to the inertia load factors established under the certification basis of the aeroplane.

- (c) Each seat for a cabin crew member required by Part-ORO.CC.100, is located to minimise the probability of its occupant suffering injury by being struck by items dislodged in a galley, or from a stowage compartment or serving cart. All items expected in these locations in service are considered. (See GM1 26.50(c))
- (d) Each occupant of a seat that makes more than an 18-degree angle with the vertical plane containing the aeroplane centreline is protected from head injury by a safety belt and an energy absorbing rest that will support the arms, shoulders, head and spine, or by a safety belt and

shoulder harness that prevents the head from contacting any injurious object. Each occupant of any other seat is protected from head injury by a safety belt and, as appropriate to the type, location, and angle of facing of each seat, by one or more of the following:

- (1) a shoulder harness that will prevent the head from contacting any injurious object;
- (2) the elimination of any injurious object within striking radius of the head;
- (3) an energy absorbing rest that will support the arms, shoulders, head, and spine.

[Issue: 26/2]

CS 26.60 Emergency landing — dynamic conditions

Compliance with 26.60 of Part-26 is demonstrated by complying with CS 25.562 of CS-25, or its equivalent, or with the following (see GM1 26.60):

- (a) Each seat type design that is approved for occupancy during taxiing, take-off, or landing must successfully complete dynamic tests or be demonstrated by rational analysis based on dynamic tests of a similar type seat, in accordance with each of the following emergency landing conditions. The tests must be conducted with an occupant simulated by a 77 kg (170 lb) anthropomorphic test dummy sitting in the normal upright position. The tests must include:
 - (1) A change in the downward vertical velocity (Δv) of not less than 10.7 m/s (35 ft/s), with the aeroplane's longitudinal axis canted downward at 30 degrees with respect to the horizontal plane, and with the wings level. The peak floor deceleration must occur in not more than 0.08 seconds after the impact, and reach a minimum of 14 g.
 - (2) A change in the forward longitudinal velocity (Δv) of not less than 13.4 m/s (44 ft/s), with the aeroplane's longitudinal axis horizontal and yawed by 10 degrees either to the right or the left, whichever would cause the greatest likelihood of the upper torso restraint system (if one is installed) moving off the occupant's shoulder, and with the wings level. The peak floor deceleration must occur in not more than 0.09 seconds after the impact, and it must reach a minimum of 16 g. If floor rails or floor fittings are used to attach the seating devices to the test fixture, the rails or fittings must be misaligned with respect to the adjacent set of rails or fittings by at least 10 degrees vertically (i.e. away from being parallel), with one rolled by 10 degrees.
- (b) The following performance measures must not be exceeded during the dynamic tests that are conducted in accordance with subparagraph (a) of this paragraph:
 - (3) If upper torso straps are used, the tension loads in the individual straps must not exceed 794 kg (1 750 lb). If dual straps are used to restrain the upper torso, the total strap tension loads must not exceed 907 kg (2 000 lb).
 - (4) The maximum compressive load that is measured between the pelvis and the lumbar column of the anthropomorphic dummy must not exceed 680 kg (1 500 lb).
 - (5) The upper torso restraint straps (if installed) must remain on the occupant's shoulder during the impact.
 - (6) The lap safety belt must remain on the occupant's pelvis during the impact.

CS-26 BOOK 1

- (7) Each occupant must be protected from serious head injury under the conditions that are prescribed in sub-paragraph (a) of this paragraph. Where head contact with seats or other structure can occur, protection must be provided so that the head impact does not exceed a Head Injury Criterion (HIC) of 1 000 units. The level of HIC is defined by the equation —

$$HIC = \left\{ (t_2 - t_1) \left[\frac{1}{(t_2 - t_1)} \int_{t_1}^{t_2} a(t) dt \right]^{2.5} \right\}_{\max}$$

Where —

‘t1’ is the initial integration time,

‘t2’ is the final integration time, and

‘a(t)’ is the total acceleration vs time curve for the head strike, and where

‘(t)’ is in seconds, and ‘(a)’ is in units of gravity (g).

- (8) Where leg injuries may result from contact with seats or other structures, protection must be provided to prevent axially compressive loads that exceed 1 021 kg (2 250 lb) in each femur.
- (9) The seat must remain attached at all points of attachment, although the structure may have yielded.
- (10) Seats must not yield under the tests that are specified in sub-paragraphs (a)(1) and (a)(2) of this paragraph to the extent that they would impede the rapid evacuation of the occupants of the aeroplane.

[Issue: 26/2]

CS 26.100 Location of emergency exits

Compliance with 26.100 of Part-26 is demonstrated by complying with the following:

If one or more emergency exits are deactivated, the distance(s) between the remaining exits is (are) no more than 18.3 m (60 feet) from any adjacent passenger emergency exit on the same side of the same deck of the fuselage, as measured parallel to the aeroplane’s longitudinal axis between the nearest exit edges.

[Issue: 26/2]

CS 26.105 Emergency exit access

Compliance with 26.105 of Part-26 is demonstrated by complying with CS 25.813(d) to (f) of CS-25 or equivalent, or with the following:

- (a) Reserved.
- (b) If it is necessary to pass through a passageway between passenger compartments to reach any required emergency exit from any seat in the passenger cabin, the passageway is unobstructed. However, curtains may be used if they allow free entry through the passageway.
- (c) No door is installed in any partition between passenger compartments.

CS-26 BOOK 1

- (d) If it is necessary to pass through a doorway separating the passenger cabin from other areas to reach any required emergency exit from any passenger seat, the door has a means to latch it in the open position. The latching means withstands the loads imposed upon it when the door is subjected to the ultimate inertia forces, relative to the surrounding structure, prescribed in CS 25.561(b), or equivalent, at the amendment level specified in the relevant Type Certificate Data Sheet, or equivalent document.

[Issue: 26/2]

CS 26.110 Emergency exit markings

Compliance with 26.110 of Part-26 is demonstrated by complying with CS 25.811(a) to (d), and (f)&(g), or equivalent, and CS 25.811(e) or equivalent, or with the following:

- (a) Each passenger emergency exit, its means of access, and its means of opening are conspicuously marked.
- (b) The identity and location of each passenger emergency exit is recognisable from a distance equal to the width of the cabin.
- (c) Means are provided to assist the occupants in locating the exits in conditions of dense smoke.
- (d) The location of each passenger emergency exit is indicated by a sign visible to occupants approaching along the main passenger aisle (or aisles). There is:
 - (1) a passenger emergency exit locator sign above the aisle (or aisles) near each passenger emergency exit, or at another overhead location if it is more practical because of low headroom, except that one sign may serve more than one exit if each exit can be seen readily from the sign;
 - (2) a passenger emergency exit marking sign next to each passenger emergency exit, except that one sign may serve two such exits if they can both be seen readily from the sign; and
 - (3) a sign on each bulkhead or divider that prevents fore and aft vision along the passenger cabin to indicate emergency exits beyond and obscured by the bulkhead or divider, except that if this is not possible, the sign may be placed at another appropriate location.

Each sign listed in this sub-paragraph may use the word 'exit' in its legend in place of the term 'emergency exit' or a universal symbolic exit sign. The design of the exit signs is chosen to provide a consistent set throughout the cabin. (See GM1 26.110(d))

- (e) The location of the operating handle and instructions for opening exits from the inside of the aeroplane are clearly shown in the following manner:
 - (1) each passenger emergency exit has, on or near the exit, a marking that is readable from a distance of 76 cm (30 inches);
 - (2) each passenger emergency exit operating handle and the cover removal instructions, if the handle is covered, are:
 - (i) self-illuminated with an initial brightness of at least 0.51 candela/m² (160 micro-lamberts); or

CS-26 BOOK 1

- (ii) conspicuously located and well illuminated by the emergency lighting even in conditions of occupant crowding at the exit.
 - (3) Reserved
 - (4) All Type II and larger passenger emergency exits with a locking mechanism released by motion of a handle, are marked by a red arrow with a shaft at least 19 mm (0.75 inch) wide, adjacent to the handle, that indicates the full extent and direction of the unlocking motion required. The word OPEN is horizontally situated adjacent to the arrow head and is in red capital letters at least 25 mm (1 inch) high. The arrow and word OPEN are located on a background which provides adequate contrast. (See GM1 26.110(e)(4))
- (f) Each emergency exit that is openable from the outside, and its means of opening is marked on the outside of the aeroplane. In addition, the following apply:
- (1) The outside marking for each passenger emergency exit in the side of the fuselage includes one 5 cm (2 inch) coloured band outlining the exit.
 - (2) Each outside marking including the band, has colour contrast to be readily distinguishable from the surrounding fuselage surface. The contrast is such that if the reflectance of the darker colour is 15 % or less, the reflectance of the lighter colour is at least 45 %. 'Reflectance' is the ratio of the luminous flux reflected by a body to the luminous flux it receives. When the reflectance of the darker colour is greater than 15 %, at least a 30 % difference between its reflectance and the reflectance of the lighter colour is provided.
 - (3) In the case of exits other than those in the side of the fuselage, such as ventral or tail cone exits, the external means of opening, including instructions if applicable, are conspicuously marked in red, or bright chrome yellow if the background colour is such that red is inconspicuous. When the opening is located on only one side of the fuselage, a conspicuous marking to that effect is provided on the other side.

[Issue: 26/2]

CS 26.120 Interior emergency lighting and emergency light operation

Compliance with 26.120 of Part-26 is demonstrated by complying with CS 25.812 (b),(c),(d) and (h) of CS-25 or equivalent and CS 25.812 (a) and (e) of CS-25 or equivalent, or with the following:

- (a) An emergency lighting system, independent of the main lighting system, is installed. However, sources of general cabin illumination may be common to both the emergency and the main lighting system if the power supply to the emergency lighting system is independent of the power supply to the main lighting system. The emergency lighting system includes:
 - (1) Illuminated emergency exit marking and locating signs, sources of general cabin illumination and interior lighting in emergency exit areas.
 - (2) for aeroplanes that have a maximum approved passenger seating configuration of more than 19, a floor proximity emergency escape path marking provides emergency evacuation guidance for passengers when all sources of illumination more than 1.22 m (4 feet) above the cabin aisle floor are totally obscured. In the dark of the night, the floor proximity emergency escape path marking enables each passenger to:

CS-26 BOOK 1

- (i) after leaving the passenger seat, visually identify the emergency escape path along the cabin aisle floor to the first exits or pair of exits forward and aft of the seat;
 - (ii) readily identify each exit from the emergency escape path by reference only to markings and visual features not more than 1.22 m (4 feet) above the cabin floor.
- (b) Except for lights forming part of the emergency lighting subsystems provided in compliance with Part CAT.IDE.A.275 (b)(4) and (5) that serve no more than one assist means, are independent of the aeroplane's main emergency lighting systems, and are automatically activated when the assist means is deployed, each light required for interior and exterior emergency lighting:
 - (1) is operable manually both from the flight crew station and for aeroplanes on which a cabin crew member is required, from a point in the passenger compartment that is readily accessible from a normal cabin crew seat;
 - (2) has a means to prevent inadvertent operation of the manual controls;
 - (3) when armed or turned on at either station, remains lighted or becomes lighted upon interruption of the aeroplane's normal electric power;
 - (4) provides the required level of illumination for at least 10 minutes at the critical ambient conditions after emergency landing;
 - (5) has a cockpit control device that has an 'on', 'off', and 'armed' position.
- (c) In addition to subparagraphs (a), and (b) above, for an aeroplane which had its initial Certificate of Airworthiness issued prior to 1 December 2006, the following conditions are met:
 - (1) For an aeroplane for which the application for the type certificate was filed prior to 1 May 1972:
 - (i) Each passenger emergency exit marking and each locating sign has white letters at least 25 mm (1 inch) high on a red background at least 5 cm (2 inches) high. These signs may be internally electrically illuminated, or self-illuminated by other than electrical means, with an initial brightness of at least 0.509 cd/m² (160 microlamberts). The colours may be reversed in the case of internally electrically illuminated signs if this will increase the illumination of the exit. On these aeroplanes, no sign may continue to be used if its luminescence (brightness) decreases to below 0.318 cd/m² (100 microlamberts).
 - (ii) The sources of general cabin illumination provides enough general lighting in the passenger cabin so that the average illumination when measured at 102 cm (40-inch) intervals at seat armrest height, on the centreline of the main passenger aisle, is at least 0.54 lux (0.05 foot-candle).
 - (iii) The floor of the passageway leading to each floor level passenger emergency exit, between the main aisles and the exit openings is provided with illumination.
 - (2) For an aeroplane for which the application for the type certificate was filed on or after 1 May 1972, the interior emergency lighting specifications under which the aeroplane was type certificated. On these aeroplanes, no sign may continue to be used if its luminescence (brightness) decreases to below 0.796 cd/m² (250 microlamberts).

CS-26 BOOK 1

- (d) In addition to subparagraphs (a) and (b) above, for an aeroplane which had its initial Certificate of Airworthiness issued on or after 1 December 2006, and for which the application for the type certificate was filed prior to 1 May 1972, the following conditions are met:
- (1) For an aeroplane that has a passenger seating configuration, excluding pilot seats, of:
 - (i) 10 seats or more, each passenger emergency exit locator sign and marking sign required by 26.110(d) of Part-26 has red letters at least 38 mm (1 ½ inches) high on an illuminated white background, and has an area of at least 135 cm² (21 square inches) excluding the letters. The lighted background-to-letter contrast is at least 10:1. The letter height to stroke-width ratio are not more than 7:1 nor less than 6:1. These signs are internally electrically illuminated with a background brightness of at least 86 cd/m² (25 foot-lamberts) and a high-to-low background contrast no greater than 3:1. Other passenger emergency exit signs required by 26.110(d) of Part-26 have red letters at least 38 mm (1 ½ inches) high on a white background having an area of at least 135 cm² (21 square inches) excluding the letters. These signs are internally, electrically illuminated or self-illuminated by other than electrical means and have an initial brightness of at least 1.27 cd/m² (400 microlamberts). The colours are reversed in the case of a sign that is self-illuminated by other than electrical means. On these aeroplanes, no sign continues to be used if its luminescence (brightness) decreases to below 0.796 cd/m² (250 microlamberts).
 - (ii) 9 seats or less, passenger emergency exit signs, that are required by 26.110(d) of Part-26, have red letters at least 25 mm (1 inch) high on a white background at least 5 cm (2 inches) high. These signs may be internally electrically illuminated or self-illuminated by other than electrical means, with an initial brightness of at least 0.509 cd/m² (160 microlamberts). The colours may be reversed in the case of a sign that is self-illuminated by other than electrical means. On these aeroplanes, no sign continues to be used if its luminescence (brightness) decreases to below 0.318 cd/m² (100 microlamberts).
 - (2) General illumination in the passenger cabin is provided so that when measured along the centreline of the main passenger aisle(s), and cross aisle(s) between main aisles, at seat armrest height and at 102 cm (40-inch) intervals, the average illumination is not less than 0.54 lux (0.05 foot-candle) and the illumination at each 102 cm (40-inch) interval is not less than 0.11 lux (0.01 foot-candle). A main passenger aisle is considered to extend along the fuselage from the most forward passenger emergency exit or cabin occupant seat, whichever is farther forward, to the most rearward passenger emergency exit or cabin occupant seat, whichever is farther aft.
 - (3) The floor of the passageway leading to each floor-level passenger emergency exit, between the main aisles and exit openings, is provided with illumination that is not less than 0.22 lux (0.02 foot-candle) measured along a line that is within 15 cm (six inches) of and parallel to the floor and is centred on the passenger evacuation path.
- (e) Each sign required by 26.120 of Part-26 may use a universal symbolic exit sign. The design of the signs is chosen to provide a consistent set throughout the cabin. (See GM1 26.110(d))

CS-26 BOOK 1

[Issue: 26/2]

CS 26.150 Compartment interiors

Compliance with 26.150 of Part-26 is demonstrated by complying with CS 25.853 and Appendix F of CS-25 or equivalent, CS 25.853(e) or equivalent and CS 25.791 or equivalent or with the following:

For each compartment occupied by the crew or passengers the following apply:

- (a) Upon any major replacement of any individual group of components as specified in Appendix F, Part I, sub-paragraph (a)(1)(i), such as interior ceiling panels, wall panels, etc., this individual group of components complies with Appendix F, Part I of this CS 26. (See GM1 26.150(a))
- (b) Seat cushions, except those on flight crew member seats, on large aeroplanes, type certificated after 1 January 1958, comply with the fire protection specifications of Appendix F, Part II.
- (c)
 - (1) Heat release (other than for lavatory interiors or flight deck), for interior ceiling and wall panels (other than lighting lenses), partitions, and the outer surfaces of galleys, large cabinets and stowage compartments (other than underseat stowage compartments and compartments for stowing small items, such as magazines and maps), in large aeroplanes which had their initial Certificate of Airworthiness issued on or after 20 August 1988, but prior to 20 August 1990, and having a MOPSC of more than 19, comply with the heat release rate testing provisions of Appendix F Part IV, except that the total heat release over the first two minutes of sample exposure does not exceed 100 kilowatt-minutes per square metre, and the peak heat release rate does not exceed 100 kilowatts per square metre.
 - (2) Heat release and smoke density (other than for lavatory interiors or flight deck) for interior ceiling and wall panels (other than lighting lenses), partitions, and the outer surfaces of galleys, large cabinets and stowage compartments (other than underseat stowage compartments and compartments for stowing small items, such as magazines and maps), in large aeroplanes, having a MOPSC of more than 19, which had their initial Certificate of Airworthiness issued on or after 20 August 1990, comply with the heat release and smoke density specifications of Appendix F Parts IV & V. (See GM1 26.150(c))
- (d) Large aeroplanes having a MOPSC of more than 19, Type Certificated after 1 January 1958 upon the first substantially complete replacement of the cabin interior components, (i.e. interior ceiling and wall panels (other than lighting lenses), partitions, and the outer surfaces of galleys, large cabinets and stowage compartments (other than underseat stowage compartments and compartments for stowing small items, such as magazines and maps)), comply with the heat release and smoke density specifications of Appendix F Parts IV & V. (See GM1 26.150(d))
- (e) Smoking prohibition is indicated by a placard so stating.
- (f) Each disposal receptacle for towels, paper or waste is fully enclosed and constructed of materials adequate in resistance to fire such that any fire likely to occur in it under normal use is contained. The ability of the disposal receptacle to contain those fires under all probable conditions of wear, misalignment, and ventilation expected in service is demonstrated by test unless appropriate maintenance tasks are put in place to ensure that excess wear or misalignment are quickly repaired. A placard containing the legible words or symbology indicating 'No Cigarette Disposal' is located on or near each disposal receptacle door.

CS-26 BOOK 1

[Issue: 26/2]

CS 26.155 Flammability of cargo compartment liners

Compliance with 26.155 of Part-26 is demonstrated by complying with CS 25.855 & Appendix F Part III, or equivalent or with the following:

- (a) Large aeroplanes, Type Certificated after 1 January 1958, with Class C or D compartment, greater than 5.66 m³ (200 cubic feet) have ceiling and sidewall liner panels which are constructed of:
 - (1) glass fibre reinforced resin, or
 - (2) materials which meet the flame penetration test specifications of Appendix F Part III, or other equivalent methods, or
 - (3) aluminium (only in the case of aluminium liner installations approved prior to 1 July 1989).
- (b) For compliance with this paragraph, the term 'liner' includes any design features, such as a joint or fastener which would affect the capability of the liner to safely contain a fire.

[Issue: 26/2]

CS 26.156 Thermal/acoustic insulation materials

- (a) Compliance with 26.156(a) of Part-26 is demonstrated by complying with CS 25.856(a), or its equivalent.
- (b) Compliance with 26.156(b) of Part-26 is demonstrated by complying with CS 25.856(a), or its equivalent.
- (c) Compliance with 26.156(c) of Part-26 is demonstrated by complying with CS 25.856(b), or its equivalent.

[Issue: 26/2]

CS 26.160 Lavatory fire protection

Compliance with 26.160 of Part-26 is demonstrated by complying with CS 25.854, or equivalent or with the following:

- (a) Each lavatory is equipped with a smoke detector system or equivalent that provides a warning light in the cockpit, or provides a warning light or audible warning in the passenger cabin that would be readily detected by a cabin crew member; and
- (b) Each lavatory is equipped with a built-in fire extinguisher for each disposal receptacle for towels, paper, or waste, located within the lavatory. The extinguisher is designed to discharge automatically into each disposal receptacle upon occurrence of a fire in that receptacle.

[Issue: 26/2]

CS 26.170 Fire extinguishers

Compliance with 26.170 of Part-26 is demonstrated by complying with the following (see also GM1 26.170(b)):

- (a) the extinguishing agent that is used in a built-in fire extinguisher for a lavatory waste receptacle or in a portable fire extinguisher for cabins and crew compartments must not be one of the

CS-26 BOOK 1

agents that are listed in Annex A — Group II: Halons (halon 1211, halon 1301, and halon 2402) of 'The Montreal Protocol on Substances that Deplete the Ozone Layer', 8th Edition, 2009;

- (b) the agent in any fire extinguisher must be acceptable, and be of a kind and in a quantity that is appropriate for the kinds of fire that are likely to occur in the compartment where the extinguisher is intended to be used;
- (c) any agent that is used in a personnel compartment or that is likely to enter a personnel compartment must be selected to minimise the hazard of a toxic gas concentration; and
- (d) a discharge of the extinguisher must not cause any structural damage.

[Issue: 26/2]

CS 26.200 Landing gear aural warning

Compliance with 26.200 of Part-26 is demonstrated by complying with CS 25.729, or equivalent or with the following:

- (a) Large aeroplanes have a landing gear aural warning device that functions continuously under the following conditions:
 - (1) For aeroplanes with an established approach flap position, whenever the flaps are extended beyond the maximum certificated approach climb configuration position in the Aeroplane Flight Manual and the landing gear is not fully extended and locked.
 - (2) For aeroplanes without an established approach climb flap position, whenever the flaps are extended beyond the position at which landing gear extension is normally performed and the landing gear is not fully extended and locked.
- (b) The warning system of sub-paragraph (a) of this paragraph:
 - (1) does not have a manual shut-off means readily available to the flight crew such that it could be operated instinctively, inadvertently or by habitual reflexive action;
 - (2) is, in addition to the throttle-actuated device, installed under the airworthiness type certification specifications; and
 - (3) may utilise any part of the throttle-actuated system, including the aural warning device.
- (c) The flap position sensing unit may be installed at any suitable place in the aeroplane.

[Issue: 26/2]

SUBPART C — LARGE ROTORCRAFT

CS 26.400 Fire extinguishers

Compliance with 26.400 of Part-26 is demonstrated by complying with the following (see also GM1 26.400(b)):

- (a) the extinguishing agent that is used in a built-in fire extinguisher for a lavatory waste receptacle or in a portable fire extinguisher for cabins and crew compartments must not be one of the agents that are listed in Annex A — Group II: Halons (halon 1211, halon 1301, and halon 2402) of 'The Montreal Protocol on Substances that Deplete the Ozone Layer', 8th Edition, 2009;
- (b) the agent in any fire extinguisher must be acceptable, and be of a kind and in a quantity that is appropriate for the kinds of fire that are likely to occur where the extinguisher is intended to be used;
- (c) any agent that is used in a personnel compartment or that is likely to enter a personnel compartment must be designed to minimise the hazard of a toxic gas concentration; and
- (d) a discharge of the extinguisher must not cause any structural damage.

[Issue: 26/2]

APPENDIX F

Part I — Test Criteria and Procedures

Refer to CS-25 Appendix F Part I initial issue or later amendments.

Part II — Flammability of Seat Cushions

Refer to CS-25 Appendix F Part II initial issue or later amendments.

Part III — Test Method to Determine Flame Penetration Resistance of Cargo Compartment Liners

Refer to CS-25 Appendix F Part III initial issue or later amendments.

Part IV — Test Method to Determine the Heat Release Rate From Cabin Materials Exposed to Radiant Heat

Refer to CS-25 Appendix F Part IV initial issue or later amendments.

Part V — Test Method to Determine the Smoke Emission Characteristics of Cabin Materials

Refer to CS-25 Appendix F Part V initial issue or later amendments.

CS-26 BOOK 2

CS-26

Book 2

Guidance Material

**Additional airworthiness specifications
for operations**

CS-26 BOOK 2

1 PRESENTATION

- 1.1 A numbering system has been used in which the Guidance Material uses the same number as the paragraph in Book 1 to which it refers. The number is introduced by the letters GM to distinguish the material from Book 1.

SUBPART A — GENERAL PROVISIONS

GM1 26.1 JAR-26 / JAR/CS-25 / FAR-25+121 / OPS / Part-26 / CS-26 / GM-26 cross-reference table

This table is intended to be a quick cross-reference table between those requirements that are contained on the one hand in Part-26, CS-26 and GM 26, and on the other hand their 'parent' airworthiness code, if one exists, i.e. JAR-26, the FAA's FAR-25 and/or FAR Part 121, as well as the related EU-OPS and the new EASA Operational requirements. This table is only indicative, and it does not pre-empt compliance with the applicable requirements, which shall be assessed by the competent authority.

JAR-26	JAR-25 / CS-25	FAR-25/ Part 121	OPS	Part-26	CS-26	GM-26
JAR 26.1	n/a	n/a	n/a	n/a	n/a	n/a
JAR 26.2	n/a	n/a	n/a	n/a	n/a	n/a
JAR 26.3	n/a	n/a	n/a	26.30(b)(2)	n/a	n/a
JAR 26.5	n/a	n/a	n/a	n/a	n/a	n/a
JAR 26.50	JAR 25.785(h), (j) & (k) at Change 8, 30/11/81 CS 25.785(g)	FAR 25.785(g), Amdt 25-51, 06/03/80 FAR 121.311 (d)(f) & (g) at Change 21, 17/02/98	OPS 1.730 CAT.IDE.A.205	26.50	CS 26.50	GM1 26.50(c)
N/A	JAR 25.562 CS 25.562	FAR 25.562 FAR 121.311(j) Amdt 121-315	CAT.IDE.A.205	26.60	CS 26.60	GM1 26.60
JAR 26.100	JAR 25.807(d)(7) at Change 13 and Amdt 93/1 08/03/93 CS 25.807	121.310(m)	n/a	26.100	CS 26.100	n/a
JAR 26.105	JAR 25.813(d) to (f) at Change 8, 30/11/81 CS 25.813	121.310(f)	OPS 1.735 CAT.IDE.A.215	26.105	CS 26.105	n/a
JAR 26.110	JAR 25.811(a) to (d) and (f) to (g) at Change 8, 30/11/81 JAR 25.811(e) at Change 14, 27/05/94 CS 25.811	121.310(b)	OPS 1.815 CAT.IDE.A.275	26.110	CS 26.110	GM1 26.110(d) & GM1 26.110 (e)(4)

CS-26 BOOK 2

JAR-26	JAR-25 / CS-25	FAR-25/ Part 121	OPS	Part-26	CS-26	GM-26
JAR 26.120	JAR 25.812 (b),(c),(d) & (h) at Change 8, 30/11/81 JAR 25.812 (a) & (e) at Change 12, 16/06/86 CS 25.812	FAR 121.310 (b),(c) & (d) at Change 21, 17/02/98	OPS 1.815(a)(1) CAT.IDE.A.27 5(b)	26.120	CS 26.120	n/a
JAR 26.125	JAR 25.812 (f) & (g) at Change 8, 30/11/81 CS 25.812	FAR 121.310 (h)(1) at Change 21, 17/02/98	OPS 1.185(a)(1)(iv) and (v) CAT.IDE.A.27 5(b)(4) and (5)	n/a	n/a	n/a
JAR 26.130	CS 25.810	FAR 25.2 (a) at Amdt 25-72, 20/08/90 FAR 121.310 (a) & (h)(2) at Change 21, 17/02/98	OPS 1.805 CAT.IDE.A.26 5	n/a	n/a	n/a
JAR 26.150	JAR 25.791 at Change 8, 20/11/81 JAR 25.853(a) to (d) at Change 14, 27/05/94 JAR 25.853(e) at Change 13 plus Amdt 91/1, 12/04/91 JAR 25.853(f) and Appendix F at Change 14, 27/05/94 Appendix F, Part I, at Amdt 93/1, 08/03/93 Appendix F, Part II, III, IV, V at Change 13 05/10/89 CS 25.853	FAR 121.312	OPS 1.731 CAT.IDE.A.21 0	26.150	CS 26.150 App. F	GM1 26.150 (a), GM1 26.150 (c), GM1 26.150 (d)
JAR 26.155	JAR 25.855 and Appendix F, Part III at Change.13 plus Amdt 93/1, 08/03/93 CS 25.855	121.314	n/a	26.155	CS 26.155 App. F	n/a

CS-26 BOOK 2

JAR-26	JAR-25 / CS-25	FAR-25/ Part 121	OPS	Part-26	CS-26	GM-26
N/A	CS 25.856	FAR 25.856 121.312(e)	n/a	26.156	CS 26.156	GM1 26.156(a)
JAR 26.160	JAR 25.854 at Change.13 at Amdt 93/1, 08/03/93 CS 25.854	121.308	n/a	26.160	CS 26.160	n/a
N/A	CS 25.851(c)	n/a	n/a	26.170	CS 26.170	GM1 26.170(b)
JAR 26.200	JAR 25.729 at Amdt 93/1, 08/03/93 CS 25.729	121.289, Amdt 121-227	n/a	26.200	CS 26.200	n/a
JAR 26.250	n/a	121.313(j)(1)(ii)	n/a	26.250	n/a	n/a
JAR 26.260	CS 25.795	121.313(j)(1)(ii)	OPS 1.1255 ORO.SEC.100. A	n/a	n/a	n/a
N/A	n/a	n/a	n/a	26.400	CS 26.400	n/a

[Issue: 26/2]

GM2 26.1 Demonstration of compliance

For the initial issue of Part-26, which is a transposition of existing JAR-26 requirements, the operators will be responsible for showing compliance. In most cases this can be done by referring to the certification basis of the aircraft or the approved changes in which the amendment level of the certification specification will indicate compliance. In any case, the JAR-26 requirements should have been implemented already by EU operators and since the CS-26 text is equivalent to the JAR-26 text, compliance with JAR-26 means also compliance with Part-26. See also Article 5 of the Commission Regulation (EU) 2015/640 In the rare case where the above possibilities are not sufficient, showing compliance by the operator directly to the NAA will be difficult. They will need to involve the design approval holder of the aircraft or the approved change as relevant. This design approval holder should then apply to the EASA for certification that the design complies with the relevant CS-26 or CS-25 paragraph, special condition or equivalent safety case. With that approval information the operator can show compliance to the NAA.

[Issue: 26/2]

SUBPART B — LARGE AEROPLANES

GM1 26.50(c) Cabin crew seat location with respect to injury risk

AC 25.785-1B, Section 8 is applicable when showing compliance with CS 26.50(c).

GM1 26.60 Emergency landing – dynamic conditions

AC 25.562-1B (dated 10 January 2006) may be used for showing compliance with CS 26.60.

[Issue: 26/2]

GM1 26.110(d) Universal symbolic exit signs

Guidance on the use of universal symbolic exit signs can be found in AMC 25.812(b)(1).

GM1 26.110(e)(4) Emergency Exit Markings

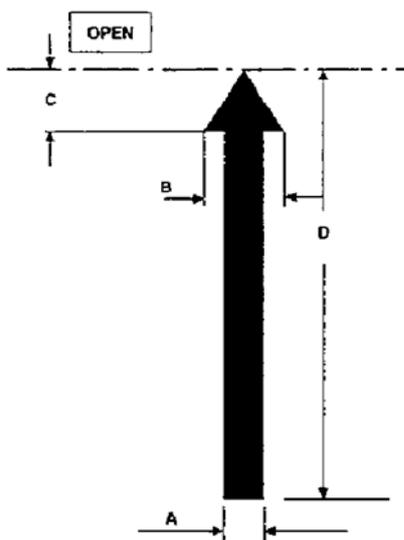
The indicating markings for all Type II and larger passenger emergency exit unlocking handle motions should conform to the general shapes and dimensions indicated by Figures 1 and 2.

NOTE: As far as is practicable the markings should be located to avoid obscuring viewing windows located on or alongside the exits, or coincidence with any other required marking or safety feature.

FIGURE 1

EXAMPLE MARKING FOR INDICATION OF LINEAR OPENING MOTION

Where practical and unambiguous arrow point and base of arrow shaft to be within ± 25 mm (1 inch) of fully unlocked and fully locked positions respectively



DIMENSIONS

A = 19 mm (0.75") minimum

B = 2 x A

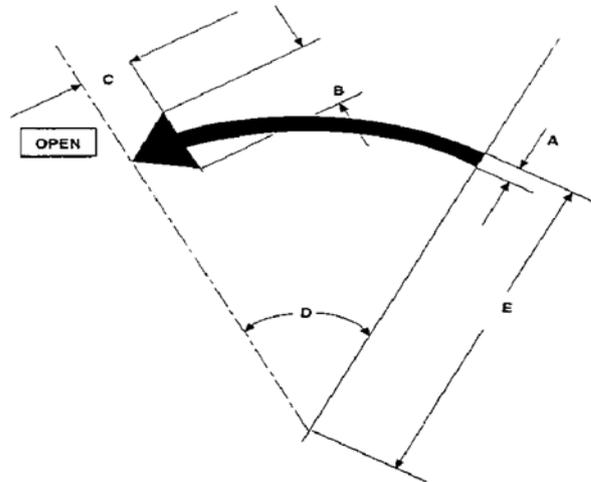
C = B (recommended)

D = Indicative of the full extent of handle travel (each installation to be individually assessed)

FIGURE 2

EXAMPLE MARKING FOR INDICATION OF ROTARY OPENING MOTION

Arrow point and base of arrow shaft to be within ± 25 mm (1 inch) of fully unlocked and fully locked positions respectively

DIMENSIONS

- A = 19 mm (0.75") minimum
 B = 2 x A
 C = B (recommended)
 D = Full extent of handle centreline travel
 E = Three quarters of handle length (where practicable)

GM1 26.150(a) Compartment interiors

'Major Replacement': More than 50 % of any component types affected in the cabin are replaced. For example, 51 % of the sidewall panels, or 51 % of the ceiling panels.

GM1 26.150(c) Compartment interiors

Galley carts and containers are considered as 'open galley surfaces' and therefore are subject to the same requirements as galleys in this respect, namely CS 26.150(c). However, because of the rotatable nature of these components, and their limited lifespan, it is permissible to use galley carts and containers manufactured prior to 20/08/1990.

GM1 26.150(d) Compartment interiors

'Complete Replacement': All of the affected components in the cabin are replaced. Whether the other components that are not affected are replaced is not relevant.

- 1 The qualifying word 'substantially' may be used to avoid operators avoiding compliance by not replacing a minor, inconsequential cabin component and stating that there had not been a 'complete replacement'.
- 2 The definition does, therefore, permit individual replacement of cabin interior components without the mandatory replacement of all components at the same time. It should also be noted that removing components for refinishing and reinstalling them in the same aeroplane, or in a different aeroplane not subject to more stringent requirements, is considered 'refurbishment' and not 'replacement'.

CS-26 BOOK 2

GM1 26.156(a) Insulation materials installed as replacement

The requirement of 26.156(a) of Part-26 is applicable to insulation materials which are:

1. of a blanket construction, or
2. installed around air ducting.

[Issue: 26/2]

GM1 26.170(b) Fire extinguishes

1 LAVATORY FIRE EXTINGUISHERS

Appendix D to Report DOT/FAA/AR-96/122 'Development of a Minimum Performance Standard for Lavatory Trash Receptacle Automatic Fire Extinguishers' of February 1997 may be used for showing compliance with CS 26.170(b).

General guidance on the alternative extinguishing agents that are considered to be acceptable can be found in AMC 25.851(c).

2 HANDHELD FIRE EXTINGUISHERS

Society of Automotive Engineers (SAE) Aerospace Standard (AS) 6271 'Halocarbon Clean Agent Hand-Held Fire Extinguisher' or European Technical Standard Order (ETSO) 2C515 'Aircraft Halocarbon Clean Agent — Handheld Fire Extinguisher' may be used for showing compliance with CS 26.170(b).

General guidance on the alternative extinguishing agents that are considered to be acceptable can be found in AMC 25.851(c).

[Issue: 26/2]