Regulations of 28 March 2000 No. 305 on surveys, construction and equipment of passenger ships engaged on domestic voyages

Legal basis: Laid down by the Norwegian Maritime Authority on 28 March 2000 under the Act of 9 June 1903 No. 7 relating to public control of the seaworthiness of ships, etc.

Added legal basis: Legal basis amended to Act of 16 February 2007 No. 9 relating to ship safety and security (Ship Safety and Security Act) sections 2, 9, 11, 12, 13, 21, 25, 28a, 43 and 47, cf. Formal Delegation of 16 February 2007 No. 171, Formal Delegation of 31 May 2007 No. 590 and Formal Delegation of 19 August 2013 No. 1002.
EEA references: EEA Agreement Annex XIII point 56f (Directive 2009/45/EC as amended by Directive 2010/36/EC), point 56cb (Directive 2003/25/EC as amended by Directive 2005/12/EC), point 56ca (Directive 1999/35/EC as amended by Directive 2002/84/EC) and Annex II chapter XIX point 1 (Directive 98/34/EC).
Amendments: Amended by Regulations of 30 June 2000 No. 710, 31 August 2000 No. 889, 30 January 2001 No. 87, 20 March 2001 No. 376, 4 June 2002 No. 1057, 8 December 2003 No. 1739, 19 December 2003 1787, 31 March 2004 No. 610, 29 July 2004 No. 1139, 2 December 2004 No. 1561, 2 January 2006 No. 1715, 10 March 2006 No. 337, 29 June 2007 No. 1006 (i.a. legal basis), 16 April 2008 No. 369, 26 November 2008 No. 1260, 8 February 2010 No. 147, 3 February 2011 No. 111, 28 December 2011 No. 1516, 14 February 2012 No. 236, 19 August 2013 No. 1036, 5 September 2014 No. 1158, 22 December 2014 No. 1893, 22 May 2015 No. 652, 28 June 2017 No. 1146, 20 December 2017 No. 2379, 15 September 2021 No. 3116 (in force on 19 September 2021), 21 January 2022 No. 129.

Chapter 1
General provisions

Section 1
Scope of application

(1) These Regulations apply to Norwegian passenger ships of 24 metres in length and upwards made of steel or other equivalent material that will be engaged on domestic voyages in sea areas of Classes A, B, C or D within the EEA.

(2) Ships built in an equivalent material before 20 December 2017 shall comply with the requirements of these Regulations by 22 December 2025.

(3) Repairs, alterations and modifications of a major character and outfitting related thereto shall comply with the requirements for new ships set out in section 8 second paragraph subparagraph a. This includes any change that substantially alters the dimensions or the passenger-carrying capacity of a ship or substantially increases a ship's service life, and any conversion of any type of ship into a passenger ship. Alterations which are intended solely to achieve a higher survivability standard shall not be regarded as alterations of a major character.

(4) These Regulations shall not apply to:

a. passenger high-speed craft, cf. section 2 first paragraph j;
b. ships covered by the Regulations of 17 June 2014 No. 768 on special rules for protected or historical ships;
c. sailing ships;
d. ships without mechanical propulsion;
e. wooden ships complying with the Regulations of 23 January 2020 No. 69 on open wooden ships carrying more than 12 passengers;
f. ships certified for trade area 2 and lesser trade area;
g. tenders;
h. ships engaged in the transport or accommodation of industrial personnel.

Amended by Regulations of 19 December 2003 No. 1787 (in force on 1 January 2004), 2 December 2004 No. 1561, 29 June 2007 No. 1006 (in force on 1 July 2007), 15 September 2021 No. 3116 (in force on 19 September 2021).

Section 2
Definitions

For the purpose of these Regulations and Appendix I hereto, the following definitions shall apply:

a. *"Bow height":* Bow height as defined in regulation 39 of the 1966 International Convention on Load Lines.
b. *"Persons with mobility impairment":* Anyone who face particular difficulties in using public transport, including elderly persons, persons with disabilities, persons with sensory impairments, wheelchair users, pregnant women and persons accompanying small children.
c. *"Existing ship":* A ship which is not a new ship.
d. *"Administration of the flag State":* The competent authorities of the State whose flag the ship or craft is entitled to fly. For Norwegian-flagged ships, the expression "administration of the flag State" refers to the Norwegian Maritime Authority.

e. *"Residual freeboard (f_r)":* The minimum distance between the damaged ro-ro deck and the waterline at the location of the damage, without taking into account the additional effect of the sea water accumulated on the damaged ro-ro deck.

f. *"GMDSS":* The Global Maritime Distress and Safety System as laid down in Chapter IV of the 1974 SOLAS Convention, with subsequent amendments.

g. *"Recognised organisation":* An organisation recognised in conformity with Article 4 of Directive 94/57/EC.

h. *"Approved, type-approved or accepted":*
   1. In respect of equipment covered by the Regulations of 30 August 2016 No. 1042 on marine equipment: Type-approved by a Notified Body in accordance with said Regulations and marked with a wheel.
   2. In respect of other equipment:
      2.1 Approved: A single piece of equipment approved by the Norwegian Maritime Authority.
      2.2 Type-approved: A prototype approved by the Norwegian Maritime Authority with or without random sample inspection of serial production.
      2.3 Accepted: Equipment accepted by the Norwegian Maritime Authority on the background of approval or type-approval of the equipment by:
         2.3.1 a recognised survey organisation;
         2.3.2 another public or private institution specified by name; or
         2.3.3 the administration in a country which has ratified the SOLAS Convention.

i. "Sea area"*:* An area as defined in section 5.

j. *"High-speed passenger craft":* A high-speed craft as defined in regulation X/1 of the SOLAS Convention, Consolidated Edition 2020, which carries more than 12 passengers. Passenger ships engaged on domestic voyages in sea areas of Class B, C or D shall not be considered as high-speed passenger craft when:
   – their displacement corresponding to the design waterline is less than 500 m³; and
   – their maximum speed, as defined in paragraph 1.4.30 of the 1994 HSC Code and paragraph 1.4.38 of the 2000 HSC Code, is less than 20 knots.

k. *"Domestic voyage":* A voyage in sea areas from a port of a State to the same or another port within that State.

l. *"Length":* Unless expressly provided otherwise, 96 per cent of the total length on a waterline at 85 per cent of the least moulded depth measured from the top of the keel, or the length from the fore side of the stem to the axis of the rudder stock on that waterline, if that be greater. In ships designed with a rake of keel the waterline on which this length is measured shall be parallel to the designed waterline.

m. *"Nautical mile":* 1,852 metres.

n. *"New ship":* A ship the keel of which is laid or which is at a similar stage of construction on or after the date of the entry into force of these Regulations. A similar stage of construction means the stage at which:
   1. construction identifiable with a specific ship begins; and
   2. assembly of that ship has commenced comprising at least 50 tonnes or 1% of the estimated mass of all structural material, whichever is less.

o. *"Passenger"*: Every person other than the master and the members of the crew and other persons employed or engaged in any capacity on board a ship on the business of that ship, and children under one year of age

p. *"Passenger ship":* A ship which carries more than 12 passengers.

q. *"Intact Stability Code"*: Code on Intact Stability for All Types of Ships Covered by IMO Instruments, adopted by the IMO Assembly by resolution A.749(18) of 4 November 1993, or International Code on Intact Stability 2008, adopted by IMO Resolution MSC.267(85) of 4 December 2008, with subsequent amendments

r. *"Ro-ro passenger ship":* A ship carrying more than 12 passengers, having ro-ro cargo spaces or special category spaces, as defined in regulation II-2/A/2 in Appendix I to these Regulations or passenger ships with facilities to enable road or rail vehicles to roll on and off the vessel.

s. *"Regular service":* A series of passenger ship crossings operated so as to serve traffic between the same two or more ports, or a series of voyages from and to the same port without intermediate calls, either:
   1. according to a published timetable; or
   2. with crossings so regular or frequent that they constitute a recognisable systematic series.

t. *"Significant wave height (h_s)":* The average height of the one third highest observed wave heights over a given period.

u. *"Port State":* A State within the EEA to or from whose port(s) a ship or craft flying another flag than the flag of that State is carrying out domestic voyages.

v. *"Sailing ship": A ship propelled by sails, even if fitted with mechanical propulsion for auxiliary and emergency purposes.*

w. *"Equivalent material":* Aluminium alloy or any other non-combustible material which, by itself or due to the insulation provided, maintains structural and integrity properties equivalent to steel at the end of the applicable exposure to the standard fire test.

x. *"Standard fire test":* A test in which specimens of the relevant bulkheads or decks are exposed in a test furnace to temperatures corresponding approximately to the standard time-temperature curve in accordance with the test method specified in the 2010 International Code for Application of Fire Test Procedures, contained in IMO Resolution MSC.307(88) of 3 December 2010, in its up-to-date version.

y. *"Tender": A ship-carried boat used for transferring more than 12 passengers from a stationary passenger ship to shore and back.*

z. *"Ship with a full deck":* A ship that is provided with a complete deck, exposed to weather and sea, which has permanent means of closing all openings in the weatherpart thereof and below which all openings in the sides of the ship are fitted with permanent means of at least weathertight closing.

The full deck may be a watertight deck or equivalent structure consisting of a non-watertight deck completely covered by a weathertight structure of adequate strength to maintain the weathertight integrity and fitted with weathertight closing appliances.

aa. *"Foreign voyage":* A voyage from a port of a State to a port outside that State, or conversely.

bb. *"Host State":* A State within the European Economic Area to or from whose port(s) a ship or craft flying another flag than the flag of that State is carrying out domestic voyages.

Amended by Regulations of 8 December 2003 No. 1739, 19 December 2003 No. 1787 (in force on 1 January 2004), 2 December 2004 No. 1561, 20 December 2017 No. 2379 (in force on 1 January 2018), 15 September 2021 No. 3116 (in force on 19 September 2021).

Section 3
(Repealed)

Amended by Regulations of 29 June 2007 No. 1006 (in force on 1 July 2007), 19 August 2013 No. 1036 (in force on 20 August 2013), repealed by Regulation of 15 September 2021 (in force on 19 September 2021).

Section 4
Equivalents and exemptions

(1) The Norwegian Maritime Authority may, for specific requirements of these Regulations, allow equivalents, provided that the equivalents are at least as effective as set out in the requirements of these Regulations.

(2) The Norwegian Maritime Authority may, provided there is no impairment of the level of safety, exempt a passenger ship under certain operating conditions from the obligation to comply with certain special requirements of these Regulations where the ship concerned is engaged on domestic voyages in Norway, including island sea areas. "Certain operating conditions" include such conditions as significant wave height, limited period of year, operation in daylight only, favourable climatic or weather conditions, limited duration of voyage or proximity to rescue services.

(3) The Norwegian Maritime Authority shall without delay notify the EFTA Surveillance Authority (ESA) of decisions pursuant to the first and second paragraphs. Such notification shall be accompanied by a statement with the grounds for the decision. If the ESA finds that an exemption is unjustified, the ESA may, no later than within six months of being notified, require the Norwegian Maritime Authority to amend or withdraw the decision.

Amended by Regulations of 19 December 2003 No. 1787 (in force on 1 January 2004), 15 September 2021 No. 3116 (in force on 19 September 2021).

Chapter 2
Classes of passenger ships

Section 5
Sea areas and classes of passenger ships

(1) Sea areas are divided into the following categories:

"Sea area A"	A sea area outside of areas B, C and D.
"Sea area B"	A sea area, whose geographical coordinates are at no point more than 20 nautical miles from the line of coast, corresponding to the medium tide height, but which is outside of areas C and D.
"Sea area C"	A sea area, whose geographical coordinates are at any point no more than 5 nautical miles from the line of coast, corresponding to the medium tide height, but outside of sea area D. Additionally, the probability of the significant wave height exceeding 2.5 metres shall be smaller than 10% for a period of one year for all-year-round operation, or for a specific period for seasonal operation, such as summer period operation.
Sea area D:	A sea area, whose geographical coordinates are at any point no more than 3 nautical miles from the line of coast, corresponding to the medium tide height. Additionally, the probability of the significant wave height exceeding 1.5 metres shall be smaller than 10% for a period of one year for all-year-round operation, or for a specific period for seasonal operation, such as summer period operation.

(2) Passenger ships are divided into the following classes according to the sea area in which they operate:

Class A:	Passenger ship engaged on domestic voyages in areas A, B, C and D.
Class B:	Passenger ship engaged on domestic voyages in areas B, C and D.
Class C:	Passenger ship engaged on domestic voyages in areas C and D.
Class D:	Passenger ship engaged on domestic voyages in area D.

(3) A division of sea areas along the coast of Norway has been made on the basis of the criteria in the first paragraph. An overview of the sea areas is available in map format on the Norwegian Maritime Authority's website.

(4) Ships which have or are required to have a Passenger Ship Safety Certificate for passenger ships engaged on domestic voyages and which are or will be in regular service under a contract entered into prior to 19 September 2021, may continue to follow the sea boundaries applicable before the specified date until the contract expires.

(5) Other ships which have a Passenger Ship Safety Certificate for passenger ships engaged on domestic voyages prior to 19 September 2021 may continue to follow the sea boundaries applicable before the specified date until 19 September 2023.

Amended by Regulations of 3 February 2011 No. 111, 15 September 2021 No. 3116 (in force on 19 September 2021).

Chapter 3
(Repealed)

Chapter repealed by Regulations of 22 December 2014 No. 1893 (in force on 1 January 2015).

Chapter 4
Technical and equipment requirements

Section 8
Technical and equipment requirements

(1) For all passenger ships in Classes A, B, C and D, the following shall apply:

a. The construction and maintenance of hull, main and auxiliary machinery, and electrical and automatic plants shall comply with the standards specified for classification by the rules of a recognised organisation, or equivalent rules used in accordance with Article 14 paragraph 2 of Directive 94/57/EC.

b. The design and construction of electrical installations shall be in accordance with the regulations currently in force concerning maritime electrical installations laid down by the Norwegian Directorate for Civil Protection, or in accordance with the rules of a recognised classification society which is approved by the Norwegian Directorate for Civil Protection for the inspection of electrical installations on ships and barges.

c. The provisions of SOLAS Consolidated Edition 2020 chapters IV and VI.

d. For all ro-ro passenger ships in regular service in Class A sea areas, the 1974 SOLAS Convention, regulation III/29 (1996 Amendments) shall apply. Contingency plans shall be in accordance with IMO Res. A.852(20).

1. Where the regular service concerns another EEA state in its capacity as host State, the contingency plan shall be prepared in cooperation with that state.

e. Instead of the date 1 January 2003, where it occurs in Appendix I, the date 1 January 2004 shall apply.

(2) For new passenger ships, the following shall apply:

a. General requirements:

1. New Class A passenger ships shall comply with the requirements of the SOLAS Consolidated Edition 2020 and the requirements laid down in these Regulations and Appendix I hereto. Appendix I first paragraph applies to ships, the keel of which was laid or which were at a similar stage of construction before 19 September 2021. Appendix I second paragraph applies to ships, the keel of which was laid or which were at a similar stage of construction on or after 19 September 2021.

2. New Class B, C and D passenger ships shall comply with the requirements laid down in these Regulations and Appendix I hereto. Appendix I first paragraph applies to ships, the keel of which was laid or which were at a similar stage of construction before 19 September 2021. Appendix I second paragraph applies to ships, the keel of which was laid or which were at a similar stage of construction on or after 19 September 2021.

b. Load line requirements:

1. New passenger ships shall comply with the requirements laid down in the 1966 International Convention on Load Lines.

2. Notwithstanding (1), new Class D passenger ships are exempt from the minimum bow height requirement laid down in the 1966 International Convention on Load Lines.

3. New Class A, B, C and D passenger ships shall have a full deck.

c. Equivalents and exemptions:
    1. New Class B, C or D passenger ships need not comply with the requirements for emergency source of electrical power contained in Appendix I, regulation II-1/D/3.1, provided that the following conditions are met:
        a. the ship is designed with two fully redundant machinery spaces;
        b. the machinery spaces are separated by at least two watertight and fire-safe compartments with Class A-60 insulation, which together make up at least ¼ of the ship's length;
        c. the main source of electrical power in each machinery space complies with the requirements of Appendix I, regulations II-1/D/3.2 to 3.5.
    2. New Class C or D ro-ro passenger ships operating on routes where it is physically impossible to install a fast rescue boat that meets the requirement of Appendix I Regulation III/5-1.3.1 may be fitted with a rescue boat which complies with the requirements of the International Life-Saving Appliance Code 2003 chapter V.
    3. New Class C or D ro-ro passenger ships operating on routes where the distance to the nearest port with an appropriate helicopter pick-up area never exceeds one hour, need not comply with the requirement for helicopter landing and pick-up areas of Appendix I Regulation III/5-2.

(3) For existing passenger ships of 24 metres in length and above, the following shall apply:

a. Existing passenger ships of Class A shall comply with the regulations for existing passenger ships defined in the 1974 SOLAS Convention, with subsequent amendments and the requirements laid down in these Regulations and Appendix I hereto.

b. Existing passenger ships of Class B shall comply with the requirements laid down in these Regulations and Appendix I hereto.

c. Existing passenger ships of Classes C and D shall comply with the requirements laid down in these Regulations and in Chapter III of Appendix I hereto. In respect of requirements for construction and fire safety measures, such ships shall comply with Regulations of 1 July 2014 No. 1072 on the construction of ships and Regulations of 1 July 2014 No. 1099 on fire protection on ships.

d. Equivalents and exemptions:
    1. Existing Class B passenger ships need not comply with the requirements for emergency source of electrical power contained in Appendix I, regulation II-1/D/3.1, provided that the following conditions are met:
        a. the ship is designed with two fully redundant machinery spaces;
        b. the machinery spaces are separated by at least two watertight and fire-safe compartments with Class A-60 insulation, which together make up at least ¼ of the ship's length;
        c. the main source of electrical power in each machinery space complies with the requirements of Appendix I, regulations II-1/D/3.2 to 3.5.
    2. Existing Class C or D ro-ro passenger ships operating on routes where it is physically impossible to install a fast rescue boat that meets the requirement of Appendix I Regulation III/5-1.3.1 may be fitted with a rescue boat which complies with the requirements of the International Life-Saving Appliance Code 2003 chapter V.
    3. Existing Class C or D ro-ro passenger ships operating on routes where the distance to the nearest port with an appropriate helicopter pick-up area never exceeds one hour need not comply with the requirement for helicopter landing and pick-up areas in Appendix I Regulation III/5-2.

Amended by Regulations of 8 December 2003 No. 1739, 19 December 2003 No. 1787 (in force on 1 January 2004), 2 December 2004 No. 1561, 16 April 2008 No. 369, 5 September 2014 No. 1158 (in force on 15 September 2014), 22 May 2015 No. 652, 20 December 2017 No. 2379 (in force on 1 January 2018), 15 September 2021 No. 3116 (in force on 19 September 2021), 21 January 2022 No. 129.

Section 8A

Special requirements for lifejackets

Lifejackets shall have an arrangement or be of a design which makes the lifejacket easy to don correctly. The lifejackets shall be provided with fastening straps not requiring the use of loops or similar devices and not based on knotting. Additionally, lifejackets shall be provided with thigh straps or an equivalent solution which ensures that the jacket stays in place when used. Lifejackets shall be provided with a light in accordance with regulation III/22.3.1 of the SOLAS Convention (1996 Amendments) and give thermal protection in compliance with the requirements of the IMO's MSC/Circ.922. The thermal protection requirement does not apply to passenger ships engaged on voyages between 30°S and 30°N.

Added by Regulation of 19 December 2003 No. 1787 (in force on 1 January 2004).

Section 8B

Stability requirements and phasing-out of ro-ro passenger ships

(1) In addition to the requirements of SOLAS regulation II-1/B/8 relating to watertight divisional bulkheads and stability in damaged condition, all Class C ro-ro passenger ships the keel of which was laid or which were at a similar

stage of construction on or after 1 October 2004, as well as all Class A and B ro-ro passenger ships shall comply with the requirements of this section.

(2) Ro-ro passenger ships approved in accordance with the model tests method which applied before 10 March 2006, are not required to carry out this test in accordance with the provisions of the sixth paragraph of this section.

(3) The provisions of regulation II-1/B/8.2.3 shall be complied with when taking into account the effect of a hypothetical amount of sea water which is assumed to have accumulated on the first deck above the design waterline of the ro-ro cargo space or the special cargo space as defined in regulation II-2/3 assumed to be damaged (referred to as "the damaged ro-ro deck" hereinafter). The other requirements of regulation II-1/B/8 need not be complied with in the application of the stability standard in this section. The amount of assumed accumulated seawater shall be calculated on the basis of a water surface having a fixed height above:

a. the lowest point of the deck edge of the damaged compartment of the ro-ro deck; or
b. when the deck edge of the damaged compartment is submerged, then the calculation is based on a fixed height above the still water surface at all heel and trim angles, as follows:
   - 0.5 m if the residual freeboard (f_r) is 0.3 m or less;
   - 0.0 m if the residual freeboard (f_r) is 2.0 m or more; and

   intermediate values to be determined by linear interpolation, if the residual freeboard (f_r) is 0.3 m or more but less than 2.0 m;

where the residual freeboard (f_r) is the minimum distance between the damaged ro-ro deck and the final waterline at the location of the damage in the damage case being considered without taking into account the effect of the volume of assumed accumulated water on the damaged ro-ro deck.

(4) Where a high-efficiency drainage system is installed, the Norwegian Maritime Authority may allow a reduction in the height of the water surface.

(5) For ro-ro passenger ships in geographically defined restricted areas of operation, the Norwegian Maritime Authority may reduce the height of the water surface prescribed in accordance with the third paragraph by substituting such height of the water surface by the following:

a. 0.0 m if the significant wave height (h_s) defining the area concerned is 1.5 m or less;
b. the value determined in accordance with the second paragraph if the significant wave height (h_s) defining the area concerned is 4.0 m or above;
c. intermediate values to be determined by linear interpolation if the significant wave height (h_s) defining the area concerned is 1.5 m or more but less than 4.0 m; provided that the following conditions are fulfilled:
d. the Norwegian Maritime Authority is satisfied that the defined area is represented by the significant wave height (h_s) which is not exceeded with a probability of more than 10%; and
e. the area of operation and, if applicable, the part of the year for which a certain value of the significant wave height (h_s) has been established, are entered into the certificates.

(6) As an alternative to the requirements of the third or fifth paragraph, the Norwegian Maritime Authority may exempt application of the requirements of the third or fifth paragraph and accept proof, established by model tests carried out for an individual ship in accordance with the model test method[1], justifying that the ship will not capsize with the assumed extent of damage as provided in regulation II-1/B/8.4 in the worst location being considered under the third paragraph in an irregular seaway.

(7) Reference to acceptance of the results of the model test as an equivalence to compliance with the third or fifth paragraph; the value of the significant wave height (h_s) used in the model tests shall be entered into the ship's certificates.

(8) The information supplied to the master in accordance with regulations II-1/B/8.7.1 and II-1/B/8.7.2, as developed for compliance with regulations II-1/B/8.2.3 to II-1/B/8.2.3.4, shall apply unchanged for ro-ro passenger ships approved according to these requirements.

(9) For assessing the effect of the volume of the assumed accumulated sea water on the damaged ro-ro deck referred to in paragraphs three to eight, the following provisions shall apply:

a. A transverse or longitudinal bulkhead shall be considered intact if all parts of it lie inboard of vertical surfaces on both sides of the ship, which are situated at a distance from the shell plating equal to one-fifth of the breadth of the ship, as defined in regulation II-1/2, and measured at right angles to the centreline at the level of the deepest subdivision load line.
b. In cases where the ship's hull is structurally partly widened for compliance with the provisions of this section, the resulting increase of the value of one-fifth of the breadth of it is to be used throughout, but shall not govern the location of existing bulkhead penetrations, piping systems, etc., which were acceptable prior to the widening.
c. The tightness of transverse or longitudinal bulkheads which are taken into account as effective to confine the assumed accumulated sea water in the compartment concerned in the damaged ro-ro deck shall be commensurate with the drainage system, and shall withstand hydrostatic pressure in accordance with the results of the damage calculation. Such bulkheads shall be at least 4 m in height unless the height of water is less than 0.5 m. In such cases, the height of the bulkhead may be calculated in accordance with the following:

   $B_h = 8h_w$

   Where:

   B_h is the bulkhead height:

   and h_w is the height of water.

In any event, the minimum height of the bulkhead should be not less than 2.2 m. However, in case of a ship with hanging car decks, the minimum height of the bulkhead shall be not less than the height to the underside of the hanging deck when in its lowered position.

d. For special arrangements such as, e.g., full width hanging decks and wide side casings, other bulkhead heights may be accepted based on detailed model tests.

e. The effect of the volume of the assumed accumulated seawater need not be taken into account for any compartment of the damaged ro-ro deck, provided that such a compartment has on each side of the deck freeing ports evenly distributed along the sides of the compartment complying with the following:
   – $A < 0.3\ l$
     where A is the total area of freeing ports on each side of the deck in m²; and l is the length of the compartment in m.
   – The ship shall maintain a residual freeboard of at least 1.0 m in the worst damage condition without taking into account the effect of the assumed volume of water on the damaged ro-ro deck.
   – Such freeing ports shall be located within the height of 0.6 m above the damaged ro-ro deck, and the lower edge of the ports shall be within 2 cm above the damaged ro-ro deck.
   – Such freeing ports shall be fitted with closing devices or flaps to prevent water entering the ro-ro deck whilst allowing water which may accumulate on the ro-ro deck to drain.

f. When a bulkhead above the ro-ro deck is assumed damaged, both compartments bordering the bulkhead shall be assumed flooded to the same height of water surface as calculated in the third or fifth paragraph.

(10) When determining significant wave height, the wave heights given in section 5 of these Regulations shall be used. In the case of Class B ships, a significant wave height of 4.0 m shall be used.

(11) For ro-ro passenger ships exclusively engaged on voyages in sea areas where the significant wave height is 1.5 m or less, the requirements in regulation II-1/B/8 of the SOLAS Convention, as mentioned in the first paragraph, shall be considered equivalent to the specific stability requirements laid down in this section.

(12) For ships which are engaged in regular domestic service in another EEA country only for a shorter period, the Norwegian Maritime Authority shall determine, under an agreement with the country at which the ship is to call, the significant wave height to be used.

(13) In applying the requirements of this section, the Norwegian Maritime Authority shall follow the indicative guidelines to national administrations contained in Annex II to Directive 2003/25/EC of 14 April 2003 on specific stability requirements for ro-ro passenger ships, amended by Directive 2005/12/EC of 18 February 2005.

(14) Model tests shall be conducted in accordance with Appendix III.

Added by Regulation of 2 December 2004 No. 1561, amended by Regulations of 10 March 2006 No.337, 3 February 2011 No. 111, 15 September 2021 No. 3116 (in force on 19 September 2021).

[1] See Appendix III.

Section 8C

Stability requirements for ro-ro passenger ships – seasonal and short-time period operations on a regular service

(1) If a shipping company operating a regular service on a year-round basis wishes to introduce additional ro-ro passenger ships to operate for a shorter period on that service, it shall notify the Norwegian Maritime Authority not later than one month before said ships are operated on that service. However, in cases where, following unforeseen circumstances, a replacement ro-ro passenger ship must be introduced rapidly to ensure continuity of service, the ship may be put into service, provided that:

a. a visual inspection and document check raise no concerns that the ship does not fulfil the necessary requirements for safe operation; and

b. the Norwegian Maritime Authority completes the verifications and surveys prescribed by these Regulations within one month.

(2) If a shipping company wishes to operate seasonally a regular service for a shorter time period not exceeding six months a year, it shall notify the Norwegian Maritime Authority not later than three months before such operation takes place.

(3) Where such operations take place under conditions of lower significant wave height than those established for the same sea area for all-year-round operation, the significant wave height applicable for this shorter time period shall be used by the Norwegian Maritime Authority for determining the height of water on the deck when applying the specific stability requirements contained in section 8B. The value of the significant wave height applicable for this shorter time period shall be determined by the Norwegian Maritime Authority or by agreement with the EEA country in which the ship will be engaged on a regular service.

(4) Where permission is granted for such operations as are mentioned in the first and second paragraphs, an attachment to the Passenger Ship Safety Certificate shall be issued, as prescribed in the Regulations of 22 December 2014 No. 1893 on supervision and certificates for Norwegian ships and mobile offshore units section 18 second paragraph subparagraph b.

Added by Regulation of 2 December 2004 No. 1561, amended by Regulations of 20 December 2017 No. 2379 (in force on 1 January 2018), 15 September 2021 No. 3116 (in force on 19 September 2021).

Section 8D

Safety requirements for persons with mobility impairment

(1) IMO circular MSC/735 of 24 June 1996 (Recommendation on the design and operation of passenger ships to respond to elderly and disabled persons' needs) shall be complied with to the extent deemed appropriate.

(2) For Class A, B, C and D passenger ships the keel of which is laid or which were at a similar stage of construction on or after 1 October 2004, the following shall apply:

a. *Access to the ship*
The ships shall be constructed and equipped in such a way that a person with mobility impairment can embark and disembark easily and safely, and can be ensured access between decks, either unassisted or by means of ramps, elevators or lifts. Directions to such access shall be posted at the other accesses to the ship and at other appropriate locations through the ship.

b. *Signs*
Signs provided to aid passengers shall be accessible and easy to read for persons with mobility impairment (including persons with sensory impairment), and be positioned at key points.

c. *Means to communicate messages*
The operator shall have the means on board the vessel visually and verbally to provide announcements, such as those regarding delays, schedule changes and on-board services, to persons with various forms of mobility impairment.

d. *Alarm*
The alarm system and alarm buttons must be designed so as to be accessible by and to alert all passengers with mobility impairment, including persons with sensory impairment and persons with learning disabilities.

e. *Additional requirements ensuring mobility inside the ship*
Handrails, corridors and passageways, doorways and doors shall accommodate the movement of a person in a wheelchair. Elevators, vehicle decks, passenger lounges, accommodation and washrooms shall be designed in order to be accessible in a reasonable and proportionate manner to persons with mobility impairment.

(3) For Class A, B, C and D passenger ships the keel of which was laid or which were at a similar stage of construction prior to 1 October 2004, the first and second paragraphs of this section shall apply for conversions to the extent determined by the Norwegian Maritime Authority, cf. section 1 third paragraph.

Added by Regulations of 2 December 2004 No. 1561, 15 September 2021 No. 3116 (in force on 19 September 2021).

Section 9

Special fire-safety measures in machinery spaces

(1) Fixed water-based local application fire-extinguishing systems on any passenger ship of 500 tonnes and upwards, the keel of which is laid on or after 1 August 2000, and on any passenger ship of 2,000 tonnes and upwards, the keel of which is laid before 1 August 2000.

(2) Machinery spaces of category A having a gross volume exceeding 500 m^3 shall, instead of the fixed fire-extinguishing system required for passenger ships under regulation II-2/10.5 of the SOLAS Convention, and for Class B, Class C and Class D passenger ships as provided in Appendix I, regulation II-2/A/6.8, be protected by a fixed water-based or equivalent local application fire-extinguishing system. For periodically unattended machinery spaces, the fixed local application fire-extinguishing system shall be capable of both automatic and manual release. For continuously attended machinery spaces, only manual release shall be required. Water-based fire-extinguishing systems shall be approved.[1]

(3) Fixed local application fire-extinguishing systems shall at least protect the areas indicated below, without necessitating the shutting down of engines, evacuation of personnel or sealing of spaces,

a. fire-hazardous machinery parts with combustion chambers used as the ship's main means of propulsion and power supply;
b. fronts of boilers;
c. fire-hazardous parts of incinerators; and
d. heated fuel oil separators.

(4) The extinguishing agent used must not endanger life.

(5) The activation of any of the local application fire-extinguishing systems shall release a visual and clearly audible alarm in the protected space and at the continuously attended stations. This alarm shall indicate the system which is activated. The alarm requirements herein shall apply in addition to the fire detection and alarm system which is required for Class A passenger ships under regulation II-2/10.5.6.4 of the 1974 SOLAS Convention and for Class B, Class C and Class D passenger ships as provided in Appendix I, regulation II-2/B/13.3.

Amended by Regulation of 19 December 2003 No. 1787 (in force on 1 January 2004).

[1] Reference is made to MSC/Circ. 913 of 4 June 1999 on the Guidelines for the approval of fixed water-based local application fire-fighting systems for use in machinery spaces of category A.

Section 10
Approval of equipment

(1) Equipment which is prescribed by the provisions of these Regulations or Appendix I hereto shall be approved, type-approved or accepted.

(2) Marine equipment which meets the requirements of the Regulations of 30 August 2016 No. 1042 on marine equipment is deemed to comply with the requirements of these Regulations, regardless of whether the first paragraph herein or other regulations prescribe that the equipment shall be approved, type-approved or accepted.

Amended by Regulations of 19 December 2003 No. 1787 (in force on 1 January 2004), 20 December 2017 No. 2379 (in force on 1 January 2018).

Chapter 5
Concluding provisions

Section 11
Entry into force

These Regulations enter into force on 1 May 2000.

Amended by Regulation of 29 June 2007 No. 1006 (in force on 1 July 2007, formerly section 12).

Appendices I-II

Appendix I

Safety Requirements for new and existing passenger ships the keel of which was laid or which were at a similar stage of construction before 19 September 2021 engaged on domestic voyages

This Appendix is a translation of Annex I to Directive 2009/45/EC on safety rules and standards for passenger ships, which forms part of the EEA Agreement. Directive 2009/45/EC (consolidated version) can be viewed at eur-lex.europa.eu.

Appendix amended by Regulations of 14 February 2012 No. 236, 22 May 2015 No. 652, 28 June 2017 No. 1146 (in force on 1 July 2017), 15 September 2021 No. 3116 (in force on 19 September 2021).

Appendix II *(repealed)*

Appendix amended by Regulations of 19 December 2003 No. 1787 (in force on 1 January 2004), 31 March 2004 No. 610, 26 July 2004 No. 1138 (in force on 30 July 2004), 26 November 2008 No. 1260 (in force on 1 January 2009), 3 February 2011 No. 111, repealed by Regulation of 15 September 2021 No. 3116 (in force on 19 September 2021).

Appendix III

Model test method

The provisions of this Appendix are binding, cf. the fifth and fourteenth paragraph of section 8B of the Regulations of 28 March 2000 No. 305 on surveys, construction and equipment of passenger ships engaged on domestic voyages.

1. *Objectives*

   This revised model test method is a revision of the method contained in the Appendix to the Annex to resolution 14 of the 1995 SOLAS Conference. Since the entry into force of the Stockholm Agreement a number of model tests have been carried out in accordance with the test method previously in force. During these tests a number of refinements in the procedures have been identified. This new model test method aims to include these refinements and, together with the appended Guidance Notes, provide a more robust procedure for the assessment of survivability of a damaged ro-ro passenger ship in a seaway. In the tests provided for in the fifth paragraph of section 8B, the ship should be capable of withstanding a seaway as defined in paragraph 4 hereunder in the worst-damage-case scenario.

2. *Definitions*

L_{BP} is the length between perpendiculars
H_S is the significant wave height
B is the moulded breadth of the ship
T_P is the peak period
T_Z is the zero crossing period

3. *Ship model*

3.1. The model should copy the actual ship for both outer configuration and internal arrangement, in particular all damaged spaces having an effect on the process of flooding and shipping of water. Intact draught, trim, heel and limiting operational KG corresponding to the worst damage case should be used. Furthermore, the test case(s) to be considered should represent the worst damage case(s) defined in accordance with SOLAS regulation II-1/8.2.3.2 (SOLAS 90) with regard to the total area under the positive GZ curve and the centreline of the damage opening should be located within the following range:

3.1.1. ± 35% L_{BP} from midship.

3.1.2. an additional test will be required for the worst damage within ± 10% L_{BP} from midship if the damage case referred to in .1 is outside of ± 10% L_{BP} from midship.

3.2. The model should comply with the following:

3.2.1. length between perpendiculars (L_{BP}) is to be at least 3 m or a length corresponding to a model scale of 1:40, whichever is greater, and the vertical extent up to at least three superstructure standard heights above the bulkhead (freeboard) deck;

3.2.2. hull thickness of flooded spaces should not exceed 4 mm;

3.2.3. in both intact and damaged conditions, the model should satisfy the correct displacement and draught marks (T_A, T_M, T_F, port and starboard) with a maximum tolerance in any draught mark of + 2 mm. Draught marks forward and aft should be located as near FP and AP as practicable;

3.2.4. all damaged compartments and ro-ro spaces should be modelled with the correct surface and volume permeabilities (actual values and distributions) ensuring that floodwater mass and mass distribution are correctly represented;

3.2.5. the characteristics of motion of the actual ship should be modelled properly, paying particular attention to the intact GM tolerance and radii of gyration in roll and pitch motion. Both radii should be measured in air and be in the range of 0.35B to 0.4B for roll motion, and 0.2LOA to 0.25LOA for pitch motion;

3.2.6. main design features such as watertight bulkheads, air escapes, etc., above and below the bulkhead deck that can result in asymmetric flooding should be modelled properly as far as practicable to represent the real situation; Ventilating and cross-flooding arrangements should be constructed to a minimum cross section of 500 mm²;

3.2.7. the shape of the damage opening should be as follows:

1. trapezodial profile with side at 15° slope to the vertical and the width at the design waterline defined according to SOLAS regulation II-1/8.4.1;
2. isosceles triangular profile in the horizontal plane with the height equal to B/5 according to SOLAS regulation II-1/8.4.2. If side casings are fitted within B/5, the damaged length in way of the side casings should not be less than 25 mm;
3. notwithstanding the provisions of subparagraphs 3.2.7.1 and 3.2.7.2 above, all compartments taken as damaged in calculating the worst damage case(s) referred to in paragraph 3.1 should be flooded in the model tests;

3.3. The model in the flooded equilibrium condition should be heeled by an additional angle corresponding to that induced by the heeling moment $M_h = \max (M_{pass}; M_{launch})-M_{wind}$, but in no case should the final heel be less than 1° towards damage. M_{pass}, M_{launch} and M_{wind} are specified in SOLAS regulation II-1/8.2.3.4. For existing ships this angle may be taken as 1°.

4. *Procedures for experiments*

4.1. The model should be tested in a long-crested irregular seaway defined by the JONSWAP spectrum with significant wave height H_S, a peak enhancement factor γ =3.3 and a peak period $T_P= (4\sqrt{H_S}(T_Z = (T_P/1.285)))$. H_S is the significant wave height for the area of operation, which is not exceeded by a probability of more than 10% on a yearly basis, but limited to a maximum of 4 m.

Furthermore,

4.1.1. the basin width should be sufficient to avoid contact or other interaction with the sides of the basin and is recommended not to be less than L_{BP} + 2 m;

4.1.2 the basin depth should be sufficient for proper wave modelling but should not be less than 1 m;

4.1.3. for a representative wave realisation to be used, measurements should be performed prior to the test at three different locations within the drift range;

4.1.4. the wave probe closer to the wave maker should be located at the position where the model is placed when the tests starts;

4.1.5. variation in H_S and T_P should be within ± 5% for the three locations; and

4.1.6. during the tests, for approval purposes, a tolerance of + 2.5% in H_S, ± 2.5% in T_P and ± 5% in T_Z should be allowed with reference to the probe closer to the wave maker.

4.2. The model should be free to drift and placed in beam seas (90° heading) with the damage hole facing the oncoming waves, with no mooring system permanently attached to the model used. To maintain a beam sea heading of approximately 90° during the model test the following requirements should be satisfied:

4.2.1. heading control lines, intended for minor adjustment, should be located at the centre line of the stem and stern, in a symmetrical fashion and at a level between the position of KG and the damaged waterline; and

4.2.2. the carriage speed should be equal to the actual drift speed of the model with speed adjustment made when necessary.

4.3. At least 10 experiments should be carried out. The test period for each experiment should be of a duration such that a stationary state is reached, but not less than 30 min in full-scale. A different wave realisation train should be used for each experiment.

5. *Survival criteria*

The model should be considered as surviving if a stationary state is reached for the successive test runs as required in paragraph 4.3. The model should be considered as capsized if angles of roll of more than 30° to the vertical axis or steady (average) heel greater than 20° for a period longer than three minutes full-scale occur, even if a stationary state is reached.

6. *Test documentation*

6.1. The model test programme should be approved by the Administration in advance.

6.2. Tests should be documented by means of a report and a video or other visual records containing all relevant information on the model and the test results, which are to be approved by the Administration. These should include, as a minimum, the theoretical and measured wave spectra and statistics (H_S, T_P, T_Z) of the wave elevation at the three different locations in the basin for a representative realisation, and for the tests with the model, the time series of main statistics of the measured wave elevation close to the wave maker and records of model roll, heave and pitch motions, and of the drift speed.

Added by Regulation of 2 December 2004 No. 1561. Amended by Regulations of 10 March 2006 No. 337, 3 February 2011 No. 111 (formerly Appendix IV).

GUIDELINES FOR THE DESIGN AND OPERATION OF NEW PASSENGER SHIPS TO RESPOND TO ELDERLY AND DISABLED PERSONS' NEEDS

Added by Regulation of 20 October 2021.

1 There is a growing recognition of the difficulties faced by elderly and disabled persons in participating in the social and economic life and of the need to alleviate these difficulties. The integration of elderly and disabled persons with the other passengers requires special consideration when designing a new passenger ship. Passenger ships such as ro-ro ferries and cruise ships are very different in their design construction, ports of call, passenger profile, and operation mode and should be considered separately. The following contains recommendations on the design and operation of a new passenger ship with the emphasis on passenger ferries which are part of the public transport system.

GENERAL INFORMATION BEFORE BOARDING THE SHIP

2 General information about the services and assistance available to elderly and disabled persons on a particular route should be made known to the general public and potential passengers, and should be made available in formats suitable for people with impaired sight, for example, large print and audio tape.

ACCESS TO THE TERMINAL

3 When a passenger ship terminal is established, the needs of elderly and disabled passengers, including those who use wheelchairs, include:

.1 to ensure to the extent possible the availability of public transport for elderly and disabled people at prices comparable to those paid by other members of the travelling public;

.2 to facilitate to the extent possible the use of taxi services and private transport for this category of passengers;

.3 to ensure barrier-free movement between entrances and exits of the terminal building, preferably without change of levels;

.4 to ensure full access to all public areas such as duty-free shops, toilets, restaurants and other shops. Toilet facilities should also be available to wheelchair users accompanied by an attendant of either sex;

.5 to ensure that the design of the toilets and drinking water fountains, telephones and elevator control panels are adapted to the needs of the mobility impaired as well as sensory impaired passengers;

.6 to make available reserved seating areas for elderly and disabled people, including space for wheelchairs; seating should be of appropriate height with armrests to assist passengers with disabilities;

.7 to provide specially marked parking spaces on the car decks of ro-ro ferries with unobstructed access to elevators for disabled passengers;

.8 to ensure that all visual instructions (i.e. safety information) be displayed in as large and clear a form as possible for the hearing impaired and those with a degree of sight impairment and whenever necessary, spoken announcements, preceded by a tone to attract attention, should be provided for blind people and those with a high degree of sight impairment;

.9 to ensure that appropriate means exist to communicate safety- and transport-related information to the hearing-impaired which may not otherwise be made known to them;

.10 to improve communications to sensory impaired people by designating special areas where all required aids and interpretation facilities might be centralized and where possible provide a loop in the audible communications system for linking to hearing aids; and

.11 to provide shipping company staff, port, immigration and customs personnel with suitable training and standardized information and instruction on how to assist disabled passengers.

ACCESS TO THE SHIP

4 The ship should be constructed and equipped in such a way that wheelchair users and other disabled persons can embark and disembark easily and safely, either unassisted or by means of ramps, elevators or lifts. The maximum slope of ramps for wheelchairs should be 1:20. There should be at least one access to the ship which is suitable for disabled persons and wheelchair users. The access should be without stairs and steps and be marked with the international symbol for installations, etc., suitable for disabled persons. Directions to this access should be posted at the other accesses to the ship and at other appropriate locations throughout the ship.

MARSHALLING OF CARS

5 For car ferries, cars with disabled drivers or passengers should be given a special marking at the gate ashore and be directed to a separate marshalling lane, before driving on board the ship. The gate attendant should have means to communicate with the person in charge of the marshalling area and the personnel on board the ship. There should be no kerb (differences in levels) in the marshalling lanes which could prevent a disabled person from getting out of a waiting car. The ship's crew should guide disabled passengers to a special parking space on board and give the necessary assistance, including taking any wheelchair out of the car. At the ship's destination the crew should also assist.

CAR PARKING ON BOARD

6 Special parking spaces from which it is possible for a wheelchair user to exit from the car should be available on board car ferries. The number of spaces may be variable as required. The parking spaces may also be used by disabled persons who are not wheelchair users. There should be barrier-free passage for wheelchair users from the parking spaces to passenger facilities.

ELEVATORS

7 At least one elevator should lead from the car deck to a deck with barrier-free access to public spaces, cabins and toilets. The elevator floor should be at least 110 cm wide and 140 cm deep. The elevator should have automatic doors

with a free door opening of at least 90 cm. A handrail 90-100 cm above floor level should be provided on three sides. Controls should be placed approximately 90-120 cm above the floor, at least 50 cm from the corner, and a handhold should be placed near the controls. A foldable seat should be available in a position from which the controls can be reached. The elevator floor should be level with the deck outside. The area in front of the elevator shall be level and at least 150 x 150 cm. Escalators cannot replace elevators.

8 Push buttons on the control panel should be at least 2 cm in diameter and have built in lighting. They should not be designed as flush, easy-touch buttons. The colour of the push buttons must be sharply contrasting the colour of the panel. Push buttons for emergency stop and alarm signal should have a form distinctively diverging from the ordinary push buttons of the elevator. The colour of the emergency stop should be red and the colour of the alarm signal should be yellow. The push buttons should be marked with large relief letters.

ACCOMMODATION

9 Door openings to public spaces should be wide enough for wheelchairs to pass unimpeded with a free opening of at least 80 cm. Doors should be automatic or kept in open position where this does not interfere with safety requirements. Obstructions caused by coamings, etc., should be avoided in passenger spaces and eliminated elsewhere, for instance by means of ramps or retractable coamings. However, coamings required by the Load Line Convention or any other safety requirements must not be removed. Ramps and coamings should be marked in contrasting colours.

10 Stairways should be constructed in order to facilitate the climb for elderly and disabled persons. Stairways should not be steep and should be of a design with closed steps. Steps should give optimum safety with regard to height, depth, colour, lighting and risk of slipping. Out of consideration for elderly and persons with reduced vision, the front edge of each step should have a contrasting bright colour (approximately 25 mm wide on both vertical and horizontal faces). Handrails, round in section with diameter of 45-50 mm in easy to grip material and in a contrasting colour, should be provided on both sides and should extend beyond the top and bottom step by 300 mm. They should be fixed at a height of 850 mm above the tread. There should be a gap between the bulkhead and the rail of at least 45 mm. Tactile warnings should be provided at the top and bottom of each flight of steps.

11 For each 100 passengers the ship may carry, at least one place should be reserved for a wheelchair, so that the wheelchair user may travel sitting in the wheelchair together with other passengers. It should be possible to place the wheelchair safely.

12 At least 4% of the ship's passenger seats should be suitable for disabled persons. These seats should have sufficient space and be provided with suitable handholds in order that disabled persons may support themselves when sitting down or getting up from the seat. The handholds should be marked in a contrasting colour. If the space available does not have enough leg room for persons with stiff legs, the seat in front of the special seat should be a removable one. If seats are arranged in rows, armrests which may constitute an obstruction to a disabled person, should be of a type which can fold away. The seats for elderly and disabled persons should be situated near evacuation routes and toilets.

CORRIDORS, DOORS AND RAILS

13 There should be sufficient space available for elderly and disabled persons to move about, especially on board ships at sea for longer periods of time. There should be handrails at a height 90 cm above the floor, preferably on both sides of the corridors. The handrail profile should be without edges and have a diameter of approximately 3.5 - 5 cm. Handrails should have a colour contrasting the background and consideration should be given to provision of tactile markings on the handrails to provide guidance/information to visually impaired passengers. Supports may also be needed elsewhere, especially in restaurants, the back of seats and in the toilet areas. Corridors should be wide enough for wheelchairs to pass other persons.

DECK AND FLOOR

14 Decks and floors should be level and have slip resistant surface. If steps are necessary, they should not be higher than 3 cm, or a ramp of a fine-masked grid or equivalent and handholds should be arranged at the step.

CABINS

15 On ships with cabins, a number of cabins suitable for wheelchair users should be available. The free space in front of the bed or resting place should be at least 140 cm. Beds should be used instead of bunks (low front edge), as the disabled person should be able to sit on the bed and undress. If bunks are used, the lower bunk should have a free height above it of at least 110 cm to permit a person to sit. The bed should be 50 cm above the floor. The switch for the reading light over the bed should be placed so that it can be reached from a wheel chair and from the bed. Electrical switches should be within easy reach and placed 90 cm above the floor. Handholds should be positioned at the bed. The cabin door should be of the side sliding type or swing outwards, unless enough space is available in the cabin to permit the door to swing inwards and for a wheelchair. The free door opening should be at least 90 cm. If a hand basin is placed in the cabin it should be arranged as a wash in a lavatory explained below. The cabin should be equipped with means of calling assistance.

LAVATORIES

16 Compatible with the size and use of the ship, a number of toilets suitable for wheelchair users should be available, if possible on each passenger deck. The toilets may be positioned separate from other toilets and may be used by both genders. Directions to these toilets should be posted at the entrances to toilets not suitable for wheelchair users. Doors should swing outwards or slide sideways and it should be possible to unlock them from outside in an emergency by means of a key, even when the door signals "occupied". There should be at least 110 cm from the front of the toilet to the opposite wall or installations and 90 cm free space at one side of the toilet. The toilet seat should be 45-48 cm above the floor. Support which can fold up or swing aside should be placed at both sides of the toilet. The hand basin should be within reach from the toilet and placed no higher than 80 cm above the floor. The fixture of the hand basin should be strong enough for the hand basin to be used as support. A mirror should be placed at a suitable height, the lower edge 90 cm above the floor and the upper edge 190 cm above the floor. It should be possible to place the front of a wheelchair under the hand basin, the free height under the basin should be 70-75 cm. Soap, towels, etc., should be placed at a height of about 90-100 cm above the floor. Means to call assistance should be available in each lavatory.

ALLOCATION OF CABINS

17 In ships with cabins, elderly and disabled persons who may need assistance in an emergency should be assigned cabins situated in the proximity of the embarkation deck, so that they may be assisted to the survival craft quickly and easily. A list of cabins occupied by passengers who may need assistance from the crew should be available.

18 Cabins and toilets suitable for wheelchair users should be placed in the open spaces which are found between cabin sections. Automatic doors are preferable. If doors are provided with door pumps, the doors should have automatic door opening. Ideally the sum of the width of the corridor plus the width of a corridor or door opening at a 90° angle to the corridor should be 220 cm. Corridors in the cabin section of the accommodation are traditionally 90 cm wide. The problem of cabin doors and toilet doors for wheelchair users in such corridors may as a last resort be solved by side sliding doors with a 100 cm free opening. The wider door opening is necessary to permit wheelchairs to turn and wheel into the cabin.

CREW TRAINING

19 The crew should be given training and be issued with clear instructions about the assistance needed by elderly and disabled persons in an emergency.

MEASURES FOR ALLERGIC PERSONS

20 The furnishings and bedding shall as far as possible be made from non-allergic materials. The use of some areas should be prohibited for passengers who are accompanied by furred animals.

INFORMATION

21 If an information counter is available, the height of the counter should be no higher than 90 cm. An induction loop should be installed at the information counter.

22 Easy-to-read posters and signs with necessary information to the passengers should be posted where relevant, especially at the accesses to the ship. Letters should be of a simple type, bold and large in a colour which contrasts with the background (e.g. black on yellow). The signs should be positioned at a suitable height above the floor, approximately 150-160 cm, and be well lit. Audible information should be spoken loud and clear. Information in alternative formats - braille, tactile or audio tape - should also be considered for blind and partially sighted persons.

23 The ship should have equipment which permits information to be given at each port in such a way, that both vision impaired persons and hearing impaired persons receive the information.

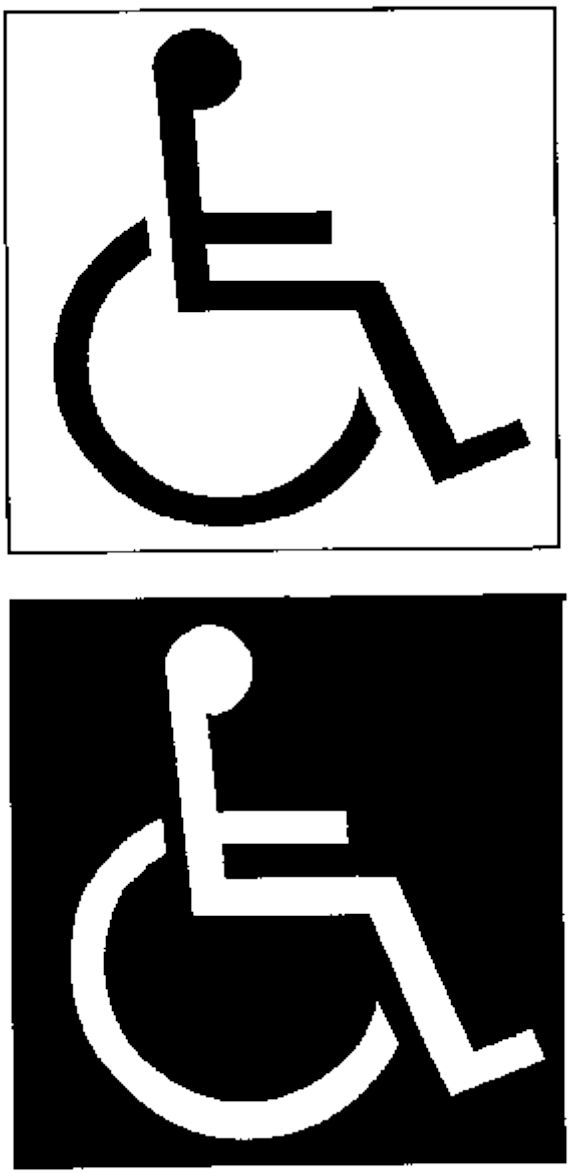
SERVICE

24 It should be possible to buy any kind of ticket necessary for the voyage at the terminal gate or on board, on appropriate services.

25 In ships where food is available, it should be possible for elderly and disabled persons to have food served at the table. Tables should be of a design which allows unimpeded access for wheelchair users.

26 Guide-dogs should be allowed access to passenger spaces, including those areas where food is available.

27 Where telephones are available to passengers at least one should be accessible for wheelchair users and marked accordingly.



Signs indicating equipment, installations and facilities suitable for disabled persons.