GUIDELINES FOR STATUTORY SURVEYS OF SEA-GOING SHIPS ENGAGED ON NON-INTERNATIONAL VOYAGES

PART SEVEN
PASSENGER QUOTAS AND ACCOMMODATION EQUIPMENT

Contents

Chapter 1 GENERAL ····· 7-1
1 Application ····· 7-1
2 Definitions ····· 7-1
3 Passenger quota certificate ····· 7-1
4 Classification of passenger ships ····· 7-1

Chapter 2 CONDITIONS FOR CARRYING PASSENGERS ····· 7-2
1 General requirements for passenger accommodation ····· 7-2
2 Space or spaces not permitted to accommodate passengers ····· 7-2

Chapter 3 CLASSIFICATION OF PASSENGER CABINS ····· 7-3
1 Class of passenger cabins ····· 7-3

Chapter 4 CRITERION OF PASSENGER QUOTAS ····· 7-4
1 Basic requirements for the assignment of passenger quotas ····· 7-4
2 Passenger cabins ····· 7-4
3 Passageways and means of access ····· 7-5

Chapter 5 PUBLIC SPACES AND SERVICE SPACES ····· 7-7
1 Galleys ····· 7-7
2 Mess rooms ····· 7-7
3 Provision stores and food stores ····· 7-8
4 Luggage rooms and linen lockers ····· 7-8
5 Reading rooms ····· 7-8

Chapter 6 SANITARY AND HOSPITAL ACCOMMODATION ····· 7-9
1 Washrooms ····· 7-9
2 Lavatories ····· 7-9
3 Communal bathrooms ····· 7-10
4 Hospital accommodation ····· 7-11

Chapter 7 WATER SUPPLY, VENTILATION, LIGHTING AND HEATING APPLIANCES ····· 7-12
1 Fresh water supply and discharge piping ····· 7-12
2 Ventilation ····· 7-12
3 Lighting ····· 7-13
4 Heating appliances ····· 7-13

Chapter 8 BULWARKS, GUARDRAILS AND OTHERS ····· 7-15
1 Bulwarks and guardrails ····· 7-15
2 Other fittings ····· 7-15

Chapter 1 GENERAL

1 Application

1.1 This PART applies to passenger ships other than high speed crafts, sailing vessels or sailing vessels having auxiliary engines. For cargo ships carrying not more than twelve passengers, consideration is to be given that appropriate accommodation is provided to those passengers.

2 Definitions

2.1 For the purpose of this PART:
(1) a passenger ship is a ship which carries more than twelve passengers;
(2) a passenger is every person other than:
① the master and the members of the crew or other persons employed or engaged in any capacity on board a ship on the business of that ship;
② a child under one year of age.

3 Passenger quota certificate

3.1 When a passenger ship applies for a Passenger Quota Certificate/Document, such Certificate/Document is to indicate the class of ship, the number of passengers certified to carry and the service areas assigned for the ship. The additional number of provisional passengers which may be granted in specified seasons is also to be indicated in the certificate/document.
3.2 Where in exceptional cases or called for by an urgent task, and upon the application of the ship's owner, after a satisfactory inspection carried out on the ship, an additional number of provisional passengers may be granted, and a Provisional Passenger Quota Certificate/Document is to be issued accordingly.
3.3 With regard to application for inspection related to a Passenger Quota Certificate/Document or a Provisional Passenger Quota Certificate / Document and issuance of such certificates / documents, the applicant is to submit the general arrangement plan, arrangement of passenger accommodation on decks, stability calculations, provision of fire-fighting equipment and life-saving appliances, as well as such other plans and documents as deemed necessary.

4 Classification of passenger ships

4.1 For the purpose of this PART, passenger ships to which the Guidelines are applicable may be classified into the following classes:
(1) Class I— passenger ships engaged on voyages of 24 h and more;
(2) Class II— passenger ships engaged on voyages of 4 h and more, and up to 24 h;
(3) Class III— passenger ships engaged on voyages of 1 h and more, and up to 4 h;
(4) Class IV— passenger ships engaged on voyages of 0.5 h and more, and up to 1 h;
(5) Class V— passenger ships engaged on voyages of less than 0.5 h.

Chapter 2 CONDITIONS FOR CARRYING PASSENGERS

1 General requirements for passenger accommodation

1.1 The space or spaces permitted to accommodate passengers are to satisfy the following conditions:
(1) of the enclosed deck spaces;
(2) of the weather deck protected by rails and awnings (only limited to passenger ships of classes III, IV and V navigating in tropical seasons specified in 3.1, Chapter 1 of PART THREE);
(3) passenger quotas for class V passenger ships, not more than 50% of passenger quotas for class IV passenger ships and not more than 30% of passenger quotas for class III passenger ships of service area category 3 may be arranged outside provided that the deck where passengers are located is at least to be protected by rails and awnings. Rails are to be designed to be provided with canvas in cold season in order to be sheltered from wind and rain and not affect escape in emergencies, during which the deck area occupied by each passenger is not to be less than 0.25 m^2, and such passenger carrying condition is to be considered during stability calculation.
1.2 Passenger accommodation spaces are to be separated from the crew accommodation.

2 Space or spaces not permitted to accommodate passengers

2.1 The following space or spaces are not to be permitted to accommodate passengers:
(1) crew accommodation and working spaces, as well as the public spaces, service spaces, hospital accommodation and alleyways;
(2) where the clear headroom in the compartment, as measured from the top surface of the floor to the lower side of the deckhead beams or ceiling, is less than 1.9 m;
(3) spaces in collision bulkhead and forward of its extension line;
(4) spaces forward of the windlass or capstan;
(5) the space or spaces in the lower cargo hold and any tween-deck space below the first deck below the deepest subdivision load line; and the space or spaces on the first deck which is more than 1.2 m below the deepest subdivision load line;
(6) the space or spaces on the boat deck for the stowage and launching of survival craft;
(7) the space or spaces having a hatchway on the deck but without permanent bulkheads enclosing the hatchway;
(8) the space or spaces without permanent bulkheads separating them from the machinery openings, galleys, washrooms, laundries and other similar compartments;
(9) the space or spaces without airtight bulkheads separating them from the paint rooms or lamp lockers, or the space or spaces which are accessible to paint rooms or lamp lockers through the public alleyways or public spaces;
(10) the space or spaces to which normal deck plating has not been adopted as their tops, and the side bulkheads of which have not been securely attached to the hull;
(11) where a space is directly adjacent to the machinery spaces and the bulkhead separating them is not properly insulated, the area within 0.6 m from the machinery space bulkheads is not permitted to accommodate passengers;
(12) the space or spaces adjacent to compartments containing flammable or explosive substances (e.g. petrol, petroleum and ammunitions, etc.), as well as the space or spaces adjacent to CO_2 stations;
(13) the space or spaces directly situated above the fuel oil tanks having a flashpoint lower than 60℃ (closed cup test). In exceptional cases, the passenger accommodation to be situated above the fuel oil tanks having a flashpoint of 60℃ or above may be permitted, provided that non-combustible and oil impervious material has been laid on the top of such tanks or a horizontal cofferdam at least 0.9 m in height has been provided between them;
(14) in addition to the above-mentioned, the space or spaces deemed unfit to accommodate passengers.

Chapter 3 CLASSIFICATION OF PASSENGER CABINS

1 Class of passenger cabins

1.1 Passenger ships of different classes may be provided with different classes of passenger cabins depending on the service requirements of the ship:

(1) Berth cabins:

① first class cabin with single tier soft berth, accommodating not more than two persons per room;

② second class cabin with single tier or double tier soft berth(s), accommodating not more than four persons per room;

③ third class cabin with double tier hard berths, accommodating not more than eight persons per room;

④ fourth class cabin with double tier hard berths, accommodating not more than fifty persons per room;

⑤ fifth class cabin with double tier hard berths, accommodating not more than one hundred persons per room.

(2) Sitting cabins:

① soft sitting cabin;

② hard sitting cabin.

1.2 Class I passenger ships and class II passenger ships engaged on voyages of more than 6 h are to be provided with berth cabins. Class II passenger ships engaged on voyages of 6 h and less and class III passenger ships may be provided with appropriate number of sitting cabins depending on the service requirements of the ship. For class IV passenger ships, each passenger is at least to be proved with one seat. Class V passenger ships are to be provided with seats not less than 10% of passenger quotas.

Chapter 4 CRITERION OF PASSENGER QUOTAS

1 Basic requirements for the assignment of passenger quotas

1.1 The minimum floor area (m^2) of accommodation/seat deck per person of passenger cabins for different classes of ships is not to be less than that given in Table 1.1.

Minimum Floor Area (m^2) of Accommodation/Seat Deck per Person **Table 1.1**

Class of passenger cabins / Class of passenger ships	First class	Second class	Third class	Fourth class	Fifth class	Soft seats of passenger cabin (width × depth)	Hard seats of passenger cabin (width × depth)
Class I	3.5	2.2	1.4	1.2	1.2		
Class II	3.0	1.7	1.3	1.1	1.1		
Classes III, IV and V			1.2	1.05	1.05	0.5×0.45	0.5×0.45

1.2 Different classes of passenger ships and ships carrying not more than twelve passengers are to be provided with promenade decks for the passengers. The floor area of the promenade deck per person is not to be less than that given in Table 1.2.

Floor Area of Promenade Deck per Person **Table 1.2**

Class of passenger ships	Floor area of promenade deck per person (m^2)
Class I	0.4
Class II	0.3
Class III	0.2 (recommended)
Classes IV and V	0.16 (recommended)

1.3 The floor area of promenade decks covers all the accessible areas (but not to impair the working of the crew) on the exposed decks and the ship side external alleyways, but excluding the hatchways and the areas on decks of 2 m from the survival craft.

1.4 For passenger ships provided with public spaces such as clubs, lounges, children's playing rooms and reading rooms, 30% of the total floor area of these public spaces may be included in the floor area of promenade decks.

1.5 The total number of passengers carried on passenger ships of classes I and II is not to exceed the aggregate total number of the berthed and sitting passengers.

1.6 The fire protection structures of passenger ships is to comply with the relevant provisions of Chapter 2-2 of PART FOUR of the Guidelines.

1.7 The total number of passengers (including the additional number of passengers permitted under 1.1(2) of Chapter 2) permitted to be carried on board a ship is not to exceed the total number of passengers corresponding to the carrying capacity of the life-saving appliances of the ship as required in Chapter 3 of PART FOUR of the Guidelines.

1.8 The total number of passengers (including the additional number of passengers permitted under 1.1(2) of Chapter 2) permitted to be carried on board a ship is not to exceed the total number of passengers as determined by stability calculations of the ship.

1.9 The floor area of passenger decks is to be measured and calculated in accordance with the relevant provisions of PART TWO of the Guidelines.

2 Passenger cabins

2.1 The clear headroom in all passenger cabins, i.e., the vertical distance measured from the top surface of floors to the lower side of the ceiling or to the lower side of the deck beams if no ceiling is fitted, is not to be less than 2.1 m for class I passenger ships and 2.0 m for passenger ships of classes II, III, IV and V, and 1.9 m for passenger cabins equipped with single tier berth.

2.2 The minimum size and the minimum height of berths are not to be less than those specified in Table 2.2.

Minimum Size of Berths **Table 2.2**

Item		Passenger ships of class I (m)	Passenger ships of classes II and III (m)
Length & width of berths (inside dimensions)		1.90×0.70	1.90×0.70
Height of double tier berth	From top surface of floors to the bottom of lower berth	0.30	0.30
	From the bottom of lower berth to the bottom of upper berth	0.90	0.85
	From the bottom of upper berth to the lower side of ceiling or deck beams	0.90	0.85

2.3 The passenger berths may be arranged in the longitudinal or transverse direction of the ship. It is recommended that the berths be as far as practicable arranged in the longitudinal direction. The berths are to be so arranged that access to one berth can be easily obtained from one side of the berth.

Berths in passenger cabins are not to be arranged in tiers of more than two and the double tier berths are to be arranged in line vertically.

2.4 Any two berths may be arranged side by side in fourth and fifth class cabins provided that the access to every side of berth proves easy and convenient, and a separating board with the height of not less than 0.45 m between two berths is to be provided.

When the berth is arranged longitudinally, a movable separating board is to be fitted between the berth and ship's side, the height of which is to be at least equal to 0.45 m, and the length equal to that of the berth; and a clear space of 75 mm is to be left between this separating board and the shipside panelling.

2.5 Berths, whether single tier or double tier, are to be provided with means for preventing the passengers from falling over the side of berths.

2.6 The seats in the passenger cabins are to be arranged in the transverse direction of the ship, either in the form of opposite seats or one-direction seats; However, any one seat in the rows is not to be more than 2.5 m from the longitudinal aisle.

3 Passageways and means of access

3.1 The passageways and means of access are to be so arranged as to ensure that:

(1) easy access of passengers to and from their accommodation rooms;

(2) easy access of passengers in various accommodation rooms to reaching the exposed deck;

(3) easy access, in an emergency, of passengers in various accommodation rooms to reaching the lifeboat embarkation deck muster station.

3.2 Stairways and ladders made of steel or other equivalent material are to be arranged to provide ready means of escape to the lifeboat and lifeboat embarkation deck from all passenger and crew spaces and from spaces in which the crew are normally employed, other than machinery spaces. The means of escape are to comply with the relevant provisions of Chapter 2-2 of PART FOUR of the Guidelines.

3.3 Each tier of passenger cabins and public spaces enclosed by permanent bulkheads is to be provided with ladders for the vertical access of passengers, the number and width of ladders are to be determined by the number of passengers carried in that space, and the greater number of passengers carried on each tier of the upper or lower decks is to be taken. The minimum requirements for ladders are listed in Table 3.3.

Number and Minimum Width of Ladders **Table 3.3**

Number and width of ladders / Number of passengers	Number	Minimum width (m)
Not exceeding 100 persons	2	0.8
101-150 persons	2 3	1.0 0.8
151-200 persons	2 3	1.3 1.0
More than 200 persons	2 3	1.5 1.0

Note: Where it is impracticable for a space certified for the number of passengers not exceeding 30 to be fitted with two ladders, one of the ladders may be substituted by an emergency escape.

3.4 The ladders are to be made of steel or other equivalent material, and their inclination to the horizontal is to be in general not greater than 45° (which may be increased to 50° subject to agreement). The vertical distance between steps is not to be more than 0.25 m, and the horizontal depth of the steps is not to be less than 0.25 m. Steps are to be provided with means of slip protection. When the height of the ladder is more than 1 m, handrails are to be fitted.

3.5 The net width of various passageways in passenger ships is not to be less than that specified in Table 3.5.

Net Width of Passageways **Table 3.5**

Item \ Class of passenger ships	Class I (m)	Classes II, III, IV and V (m)
External passageways on both sides of open deck	1.2	1.0
Passageways to open deck from passenger cabins/public spaces	1.0	1.0
Internal passageways in passenger cabins/public spaces for carrying passengers not exceeding 50 persons	0.8	0.8
Internal passageways in passenger cabins/public spaces for carrying passengers exceeding 50 persons	1.0	1.0
Passageways between passenger berths	0.8	0.8
Passageways between passenger seats: when seated side by side when seated in the opposite direction		 0.5 0.75

Note: For passenger ships of classes II, III, IV and V with $L \leq 30$ m, where it is impracticable to arrange external passageways on both sides of open deck, relaxation may be granted as appropriate subject to agreement but not less than 0.8 m.

3.6 The passenger cabins within an enclosed space are to be arranged along a passageway provided with two accesses to the open deck, and the width of the passageway is not to be less than that specified in Table 3.5. Where the number of passengers in a cabin exceeds twelve, such a cabin is to be provided with at least two accesses leading to the above-mentioned passageway or directly to the open deck.

3.7 The access to the open deck of the passenger accommodation spaces below the upper deck is to be situated in way of the passageway within the superstructure or deckhouse; where the access directly leads to open deck, a companionway is to be provided, and the access of the companionway is to be opened towards the stern of ship, and its clear height is not to be less than 1.85 m.

3.8 The door width of every access is to be adaptable to the width of passageways or stairways, but in no case is the door width of passenger cabins to be less than 0.6 m nor that of seated passenger cabins be less than 0.8 m. Unless emergency escape portholes or windows are fitted to passenger cabins, the passenger cabins are to be provided with an emergency exit at the lower half of the door, and the size of the emergency exit is not to be less than 350 mm × 450 mm. The width of doors for mess rooms or public spaces is not to be less than 0.8 m.

3.9 Doors of passenger cabins within an enclosed space are to be opened inwards, but the doors of passenger cabins with a large number of passengers, mess rooms as well as the doors of other public spaces are to be opened outwards, or are to be capable of being opened from both sides. All doors for the access to open deck are to be opened outwards.

3.10 No sliding doors are permitted in the passenger cabins or public spaces. Sliding doors are permitted in passenger ferries provided that means are provided to prevent sliding of doors after they are opened.

Chapter 5 PUBLIC SPACES AND SERVICE SPACES

1 Galleys

1.1 In passenger ships of classes I and II, exclusive galleys serving the passengers are to be provided. However, if it is impracticable, the passenger galleys may be combined with the crew's galleys.

1.2 In order to obtain quick and convenient supply of food, galleys are to be as far as practicable situated close to the mess rooms. For large passenger ships, inter-deck food lifts are to be fitted as far as possible.

1.3 Galleys are to be located as far remotely as possible from the lavatories, hospital accommodation and washrooms, and the access and the food delivery windows of galleys are not to be placed opposite to the access of the above-mentioned spaces.

No passageway to other spaces is to be led through the galleys, and special care is to be taken to avoid the penetration of cooking odour into the living accommodation and mess rooms.

Galleys are not to be situated on top of spaces of high temperature, otherwise, special attention is to be paid to insulation.

1.4 The floor area of galleys is to be appropriate to the classes of passenger ships, number of passengers carried and the system of serving meals. The galley equipment, such as ranges, rice steamers and other equipment, is to be adaptable to the maximum passenger quotas intended for the ship. The width of the passageway in front of the range is to be at least 1 m, and 0.8 m in front of the working table and other equipment of the galley.

1.5 The arrangement of all the equipment in the galley is to ensure harmonious operation and easy cleaning.

1.6 The galleys are to be well exhaust ventilated and adequately lighted.

1.7 Floors in the galleys are to be laid with non-slip material which is durable, easily cleaned and water impervious. Where a range is located close to the bulkhead, the clear space between the range and the bulkhead is to be at least 150 mm, and the bulkhead is to be covered with insulation material, encased by galvanized iron sheet. The insulation unit is to be 30 mm above the range. The exhaust smoke pipe of the range is to comply with the relevant requirements in Chapter 2-2 of PART FOUR of the Guidelines. The fuel oil tank supplying the range is to be in general situated outside the galley and is to comply with the fire safety requirements.

1.8 It is recommended that a separate pantry be provided in the galley of passenger ships of classes I and II, which is to be provided with necessary equipment, and the floor area of the pantry is to be adaptable to the arrangement of assorted equipment.

2 Mess rooms

2.1 Mess rooms are to be provided for passengers in passenger ships of classes I and II.

2.2 The number of passengers permitted to be accommodated by the mess rooms and the floor area per person are to comply with the requirements of Table 2.2.

Number of Passengers Accommodated by Mess Rooms and the Floor Area per Person

Table 2.2

Class of passenger ships	The percentage of passengers of each lot to take food to the total number of passengers %	Average floor area per passenger (m^2)
Class I	25%	0.8
Class II	20%	0.8

2.3 The table and seats in the galley are to be securely fixed on the deck, and the seat may be a revolving chair. The width of the table is not to be less than 0.6 m for occupants sitting opposite and 0.4 m for occupants sitting by side. The length of the table for each person is not to be less than 0.5 m.

2.4 Passenger ships are to be provided with separate dinner set washrooms and storerooms. Where it is impracticable to satisfy this requirement, the pantry may be combined with the dinner-set washroom, however, dinner-set is not to be washed in the dinner-set storerooms.

3 Provision stores and food stores

3.1 Provision stores and food stores serving the passengers are to be provided in passenger ships of classes I and II, the capacity of which is to be appropriate to the number of passengers certified and the operating routes assigned.

3.2 The access of provision stores or food stores is not to be situated close to that of lavatories, hospital accommodation, bathrooms, etc., and is not to be adjacent to compartments of high temperature.

3.3 Provision stores are to be provided with means to keep the provision in dry condition and protect it against moulding and deteriorating. Chambers for storing perishable food and provision are to be provided with refrigerated facilities. Sound and light alarms are to be fitted outside the refrigerated chambers, which are to be capable of being operated from inside the chamber.

3.4 The provision stores and food stores are to be watertight and provided with adequate ventilation and lighting. Provision stores and food stores are to both be provided with means to prevent the admission of rats.

3.5 The selling counters in passenger ships are to be located easily accessible to the passengers, and not be situated close to the access of lavatories, hospital accommodation, washrooms, etc. The selling counters are to be provided with adequate ventilation and lighting.

3.6 The material and technique used to construct the provision stores and food stores are to ensure that the provision and food stored there are not contaminated by toxicity and odour.

4 Luggage rooms and linen lockers

4.1 The luggage rooms in different classes of ships are to be provided with adequate ventilation and lighting.

4.2 Linen lockers are to be provided in passenger ships having berthed cabins. The capacity of linen lockers is to be appropriate to the number of berths in cabins of different classes. The linen lockers are to be moisture proof and insulated, provided with adequate ventilation and lighting, and are to be placed as far apart from the stairways as possible.

5 Reading rooms

5.1 Passenger ships of classes I and II are to be provided with passenger reading rooms.

5.2 The doors of reading rooms are to be opened outwards, and these rooms are to be adequately ventilated and lighted.

Chapter 6 SANITARY AND HOSPITAL ACCOMMODATION

1 Washrooms

1.1 Passenger ships of different classes are to be provided with communal washrooms for passengers, which are to be separated from those for crew members.
1.2 The communal washrooms in passenger ships are to be separated from the communal lavatories.
1.3 The number of water cocks in passenger communal washrooms is to be appropriate to the number of passengers; if wash basins are fitted in cabins of first and second class, the number of passengers accommodated by such cabins may not be taken into account. When the total number of passengers does not exceed 100, one each of cold and hot fresh water cocks are to be fitted for every 20 persons, but not less than two in total. Where the total number of passengers exceeds 100, additional water cocks, one each of cold and hot fresh water, are to be fitted for every excess 40 persons. For voyages of shorter duration, the number of water cocks above may be reduced as appropriate.
1.4 Cold fresh water and hot fresh water is to be normally available in all communal wash places. Hot fresh water may be available for passenger ships of classes II and III depending on requirements of service areas and seasons.
1.5 The waste water from the communal wash basin or individual wash basin is to be discharged overboard by separate waste piping or through the sewage tank. Sufficient number of drainage pipes or enlarged bore drainage pipes is to be provided in the communal washrooms so as to keep the floor free from accumulation of water.
1.6 The communal washrooms are to be adequately ventilated, lighted and heated. Where the communal washroom is situated close to the machinery spaces, the structures are to be well insulated.

2 Lavatories

2.1 Sufficient passenger lavatories are to be provided in passenger ships and the lavatories for man and woman are to be separated and plainly indicated by a nameplate. The passenger lavatories are to be separated from those of the crew members.
2.2 The lavatories are to be so arranged as to ensure that the infiltration of effluvium into the adjacent accommodation rooms, public spaces, provision stores, food stores and hospital accommodation is avoided. For small passenger ships, when the lavatories are installed in the communal washrooms, they are to be separated by permanent paneling.
Lavatories on different deck levels are to be situated as far as practicable in the same vertical zone, and are not to be situated above the mess rooms, provision stores and food stores, and as far as practicable not be situated above the sleeping rooms.
2.3 In addition to the individual lavatories installed in the cabins, passenger ships are to be provided with communal lavatories for man and woman passengers appropriate to the number of passengers carried (passengers in cabins with individual water closet are not taken into account), but not less than that given in Table 2.3.

Provision of Water Closets **Table 2.3**

Total number of passengers	Minimum number of water closets (pc.)
Not exceeding 500	No. of passengers / 40
501～1000	$13+\frac{\text{No.of passengers}-500}{60}$
Exceeding 1000	$21+\frac{\text{No.of passengers}-1000}{80}$

Notes: (1) When calculating the number of water closet, the decimal is to be rounded off to the whole number.
(2) Where it is impracticable to fit water closets in accordance with the above standards, 1 water closet may be provided for every 60 persons on passenger ships of class III and 1 water closet may be provided for every 80 persons on passenger ships of classes IV and V.

2.4 The minimum size of lavatory with individual water closet is to comply with the following:
(1) width measured along the floor 0.8 m;

(2) length measured along the floor 1.0 m.

2.5 Where the number of water closets in a lavatory is two or more, they are to be separated by paneling with latched doors, the floor area for each separated water closet is not to be less than 0.8 m^2. Urinals or urine troughs are to be fitted in the man's lavatory, and the urinals are to be spaced not less than 0.6 m apart.

2.6 Ceramic water closets of the water sealed type, squatting type water closets or trough type water closets may be provided in passenger accommodation.

The water closets and squatting type water closets are to be provided with flushing systems connecting to the sanitary piping.

2.7 The decks and bulkheads of lavatories are to be of steel watertight construction, and non-slip and watertight coverings are to be laid over the deck. The enclosing bulkheads are to be laid with ceramic tiles or equivalent material to a suitable height above the deck. Where it is impracticable to fit steel decks or steel bulkheads, the use of substitute materials may be permitted subject to agreement, but the deck and bulkheads in way are to be watertight, and drain holes are to be cut in the deck.

2.8 The door of communal lavatories is to be opened inwards. The communal lavatories are to be well lighted and provided with exhaust ventilation to the atmosphere.

2.9 Passenger ships of different classes are to be provided with sewage water treatment facilities or sewage tanks in accordance with the provisions of PART FIVE of the Guidelines or other relevant provisions concerning pollution prevention; and the capacity of the sewage tanks is to be determined by taking into account the treatment of feces, the total number of crew members and passengers certified, and the duration of sailing time from the port of departure to the discharge point at sea. The sewage tank is to be provided with discharge piping of the entirely enclosed type, and is to be provided with means of flushing systems connecting to the sanitary piping.

3 Communal bathrooms

3.1 In passenger ships of classes I and II, in addition to the individual washing tubs or shower baths fitted in the cabins, communal shower baths for the passengers are to be fitted not less than that required by Table 3.1. At least one communal washroom each for man and woman is to be fitted and plainly indicated by nameplates.

Provision of Shower Bath **Table 3.1**

Class of cabins / Class of passenger ships	Second class cabins (shower bath)	Third, fourth and fifth cabins (shower bath)
Class I	One for every 40 persons	One for every 80 persons
Class II	Calculated based on total number of passengers, one for every 80 persons	

Notes: ① Passenger ships regularly trading to or in tropics are recommended to fit adequate number of washing tubs or shower baths.

② Bathrooms are to be provided in first class cabins, and the provision of bathrooms in second class is to be in accordance with the need of services.

③ Where a cabin is provided with an individual bathroom, the number of passengers accommodated by such cabins is not to be included in the total number of the passengers.

3.2 The floor area of washroom with a tub is not to be less than 2.5 m^2. The floor area of individual shower bathroom with a changing room is not to be less than 1.6 m^2. Where several shower baths are fitted in single bathrooms, each shower is to be separated by paneling impervious to water and the floor area per shower is not to be less than 0.8 m^2, besides, a clothes locker is to be provided.

3.3 The deck and enclosed bulkheads of bathrooms are to be of steel watertight construction. The deck of bathrooms is to be covered by non-slip and watertight material, and the enclosing bulkheads are to be laid with ceramic tiles to a suitable height above the deck. The floors of bathrooms and changing rooms are to be provided with means of slip protection, and cut with drain holes. Handrails are to be fitted at the side of wash tubs or showers.

3.4 Bathrooms are to be provided with adequate lighting and means of exhaust ventilation. The heating for bathrooms is to ensure a temperature in such rooms not lower than 25℃ under any

outside temperature conditions.

4 Hospital accommodation

4.1 The clinic, dispensary and wards are to be provided in passenger ships of class I, which are appropriate to being situated amidships for the convenience of the passengers to the doctors. Passenger ships of class I may be provided with either doctors or nurses in accordance with needs. Passenger ships of class II are to be provided with clinics. Passenger ships of class III are to be provided with first-aid medicine chest.

4.2 Wards are to be provided with individual sanitary accommodation.

4.3 Wards are to be provided with individual access. The door width of the wards, clinics or dispensary is not to be less than 0.8 m.

4.4 Wards and clinics are to be well lighted, heated and ventilated or air conditioned, and in general, be provided with natural light.

4.5 The size of ward berths is not to be less than 2 m × 0.8 m, and the berth is to be so arranged that passageways are provided on both sides.

4.6 The number of ward berths in passenger ships of classes I and II is to comply with the requirements of Table 4.6.

Provision of Ward Berths **Table 4.6**

Total number of passengers	Number of ward berths to be fitted in passenger ships of classes I and II
Not exceeding 300	1
301 ~ 500	l
501 ~ 750	2
751 ~ 1000	2
Exceeding 1000	3

Chapter 7 WATER SUPPLY, VENTILATION, LIGHTING AND HEATING APPLIANCES

1 Fresh water supply and discharge piping

1.1 In passenger ships, good quality drinking fresh water and washing fresh water is to be supplied. The storage capacity of fresh water on board ships is to be appropriate to the total number of crew members and passengers and the normal duration of the voyage. It is recommended that 100 *l*/person/day be provided for passenger ships of class I and 75 *l*/person/day be provided for passenger ships of class II; and of the total quantity of fresh water, the quantity for drinking fresh water is not to be less than 30%. For passenger ships trading regularly to or in the tropics, the fresh water storage is to be adequately increased.

1.2 The drinking fresh water and washing fresh water for passengers is to be supplied by the separate system so as to ensure normal supply to passengers.

1.3 In passenger ships, the following piping is to be provided for supply and discharging:

(1) fresh water piping systems, including drinking fresh water and washing fresh water piping systems for supplying water for use in galleys, mess rooms, hospital accommodation, bathrooms, washrooms, laundries, barber's shops, etc.;

(2) sea water piping systems for supplying water for flushing lavatories or other spaces;

(3) waste water piping systems for discharging waste water from galleys, mess rooms, hospital accommodation, bathrooms, washrooms, barber's shops, etc.;

(4) soil piping systems for discharging the flushing water from lavatories and other spaces.

1.4 Hot water piping systems are to be provided according to actual requirements. Where hot water pipes are fitted, special tanks provided with steam coils are to be used to heat the cold water, and direct heating by jetting steam into water is not permitted.

1.5 In order to prevent icing in the winter season, the water supplying pipes are to be wrapped with laggings.

1.6 It is recommended that copper pipes or galvanized steel pipes be used for supplying the drinking fresh water or washing fresh water; and the use of lead pipes is strictly prohibited.

1.7 The sea water systems in passenger ships are to have separate water piping, and are to ensure a normal supply to flush the lavatories and other spaces.

1.8 Soil pipes are to be as short as possible, and sharp bends and small acute angles in the piping are to be avoided. Soil pipes are not to be directly discharged overboard, but into a fecal tank. In order to prevent the infiltration of effluvium from the fecal tank into the lavatory, water closets and urinals are to be of the water sealed type or other equivalent types.

1.9 Fecal tanks are to be provided with an entirely closed type discharging piping for the suction and discharge of soil water, and are to be provided with flushing facilities connecting to the sanitary piping systems.

1.10 Waste water pipes and soil pipes are strictly prohibited from passing through the wards, clinics, galleys, mess rooms, provision stores and food stores. The waste water pipes and soil pipes to pass through the passenger accommodation may be permitted provided that there are no joints in such piping within the passenger accommodation.

1.11 Waste water pipes and soil pipes are, as far as practicable, to be arranged vertically on different decks, and no inter-connection is to be provided between such pipes.

1.12 Waste water pipes and soil pipes are to be arranged with suitable slopes and it is recommended that the inclination be not less than 50 mm vertically in one metre distance.

1.13 The outlets of the waste water pipes and soil pipes in passenger ships of class I are to be provided with means for removing blocking.

1.14 Waste water pipes and soil pipes are to be made of galvanized steel pipes or other approved material.

2 Ventilation

2.1 All the passenger accommodation spaces, public spaces and hospital accommodation are to be well ventilated by natural ventilation, mechanical ventilation or air conditioning. In passenger ships of classes I and II, the passenger accommodation spaces situated below the upper deck are to be equipped with air conditioning.

2.2 The air inlet of the ventilation in passenger accommodation spaces is not to be directed towards the berths of passengers.
2.3 The ventilation for passenger accommodation spaces is to be separated from that for crew accommodation spaces.
2.4 The exhaust ventilation from lavatories, washrooms, bathrooms, galleys and hospital accommodation is to be provided with separate air ducts, so that ventilation may be continued in the above-mentioned spaces even when the ventilation equipment for the passenger accommodation has been stopped.
2.5 The exhaust ventilation and suction ventilation of the ventilation systems are to be provided separately, and the air inlets and air outlets are to be placed in suitable positions.
2.6 Ventilation ducts are not to pass through the watertight bulkheads under the bulkhead deck.
2.7 When a ventilation duct has to pass through the fire bulkheads, the consent is to be obtained and a fire damper is to be fitted close to the bulkhead being penetrated; and an indicator showing whether the damper is open or closed is to be fitted.
2.8 All the ventilation systems are to be installed in accordance with the relevant provisions of Chapter 2-2 of PART FOUR of the Guidelines.
2.9 Where mechanical ventilation is fitted for the passenger accommodation spaces, public spaces and hospital accommodation, the air changes per hour are to comply with the requirements of Table 2.9.

Air Changes of Compartments, Spaces and Alleyways Table 2.9

Name of compartments	Air changes per hour	
	Supply	Exhaust
Passenger accommodation spaces above the upper deck	8~10	8~10
Passenger accommodation spaces below the upper deck	10~15	10~15
Mess rooms, clubs, meeting rooms, smoking rooms and public spaces	15~20	15~20
Lavatories, washrooms, bathrooms, laundry and drying rooms		15~20
Galleys	40~60	60~80
Food store rooms	5~10	15~20
Barber's shops, selling counters and service spaces	5~10	
Clinics and wards	8~10	10~20
Luggage rooms		20
Pantries	20~30	30~50
Alleyways above the upper deck		5
Alleyways below the upper deck		10

3 Lighting

3.1 In passenger ships, all the passenger accommodation spaces, public spaces, hospital accommodation, sanitary accommodation and passageways are to be provided with lighting equipment, and the passenger accommodation spaces, hospital accommodation and sanitary accommodation are to be provided with natural lighting as far as possible.
3.2 In passenger ships of different classes, the deck spaces for the stowage of survival craft and the passageways to the embarkation deck are to be adequately lighted in accordance with the relevant provisions of Chapter 3 of PART FOUR of the Guidelines.
3.3 The above-mentioned lighting is, in addition to the main electric power supply, to be provided with an emergency supply of electric power for passenger ships of classes I and II.

4 Heating appliances

4.1 Ships trading regularly to or in the cold regions are to be provided with heating or air conditioning equipment, which is to ensure a temperature not less than 17℃ in the living compartments or rooms and a temperature not less than 20℃ in the wards or clinics under any outside temperature conditions, and each heater is to be provided with an on-and-off control and a

heat adjusting device.

4.2 The steam pressure in the heating pipes is not to exceed 303.975 kPa (3 atmospheric pressure).

4.3 Steam heaters or hot water heaters are, as far as practicable, to be laid along the ship sides or bulkheads. However, the heaters are to be spaced at least 50 mm from the ship sides or bulkheads.

4.4 The main steam pipe and the main hot water pipe of the heaters are to be arranged below the ceiling and at the turn of bulkheads, and the joints in the main steam and main hot water pipes are not to be placed at the door side or in the corridors where persons may get hurt.

4.5 The main and branch pipes of heating systems are to be lagged with insulation, and the heaters are to be shielded.

4.6 Steam, hot water or electric heaters are not to be installed in the following locations:

(1) underneath the berths or at the head of berths;

(2) close to the exhaust air outlets;

(3) places which are likely to be splashed with water.

4.7 With the exception of the above-mentioned heating appliances, all other steam pipes are not to pass through the passenger accommodation spaces.

Chapter 8 BULWARKS, GUARDRAILS AND OTHERS

1 Bulwarks and guardrails

1.1 Bulwarks or guardrails are to be fitted on the exposed parts of the freeboard deck superstructure and deckhouse decks, in accordance with the requirements specified in PART THREE of the Guidelines.

1.2 Where bulwarks are fitted on decks, the structure is to comply with the provisions of relevant CCS rules or other equivalent standards and the bulwarks are to be provided with freeing ports complying with the relevant requirements of PART THREE of the Guidelines.

1.3 For the bulwarks or guardrails fitted on the lifeboat embarkation deck, movable doors of not less than 0.8 m wide or movable rails or movable chains are to be provided in way of the location where the lifeboat is launched, so as to facilitate the embarkation of passengers.

2 Other fittings

2.1 In passenger ships where passengers are carried on exposed decks, the deck passenger spaces are to be protected with awnings against sunshine. The height of awning stanchions at ship sides is not to be lower than 1.85 m, and the height of those at the middle part is to be higher than that at sides, so as to give the awnings a slope of not less than 1:10 to avoid water accumulation.

2.2 Nameplates are to be fitted to each passenger cabin, showing the class, number of passengers and serial number of the cabin. Each berth or seat is to be numbered and indicated with a nameplate. Nameplates are also to be fitted to other passenger accommodation spaces, showing their purposes.

2.3 Distinctive route signs are to be fitted in alleyways, stairways and accesses to indicate the correct direction towards the lifeboat embarkation deck, and during night time, light indications are to be provided.