

- (d) chain locker or cofferdam;

(e) paint locker; or

(f) space containing batteries;
- shall be of gas-tight construction and, where necessary, watertight to protect the seafarers' accommodation and acoustically insulated where necessary to protect seafarers from excessive noise and vibrations.
- (7) The bulkheads surrounding the seafarers' accommodation and the decks forming the crown of that accommodation, and which are exposed to weather, shall be—
- (a) constructed of steel or other equivalent material, and of watertight construction, and any doors shall be weathertight;

(b) insulated to the extent necessary to ensure that the seafarers' accommodation is protected from condensation as well as extremes of heat or cold.
- (8) Within the seafarers' accommodation, all structures, furniture, fittings, and the means of entry and exit from the seafarers' accommodation shall be situated, constructed and arranged so that the risk of injury to seafarers' members is minimised, and in particular—
- (a) handrails, of robust construction and securely attached to bulkheads, shall be provided in passageways and stairwells;

(b) fixed furniture shall be safely secured;

(c) portable furniture shall be secured against movements of the ship;

(d) doors, including doors to cupboards, furniture, and drawers shall be provided with means to hold them in position when closed; and

(e) shelves, racks, and similar fittings shall be provided with retaining bars or other arrangements to prevent their contents from falling while the ship is at sea.

(9) In every new ship, all parts of the seafarers' accommodation, except cold store rooms, shall have a clear headroom of at least 203 centimetres, and in every existing ship the clear headroom shall be at least 198 centimetres, provided that the Minister may permit a reduction in this height where he is satisfied that—

(a) it is reasonable to do so; and

(b) it will not result in discomfort to the seafarers.

(10) Save for a hospital in passenger ships, no part of the seafarers' accommodation shall—

(a) be shared with passengers; or

(b)used for the benefit of passengers.

(11) Inside panelling in crew accommodation shall be constructed of durable material.

(12) Noise levels in working and living spaces for new ships shall be in conformity with those in the ILO publication "Ambient factors in the workplace 2001", and with the standards set out in IMO Resolution A.468(XII) (Code on Noise Levels Onboard Ships) as it may be amended from time to time.

(13) No—

(a) accommodation;

(b) catering facilities; or

(c) recreational facilities,
- shall be exposed to excessive vibration.
- Materials and surface finishes**
- 5 (1) The surfaces used for bulkheads and deckheads shall be of a material which is easily kept clean, and which is constructed in a manner where vermin are unlikely to be harboured, and the deckheads and bulkheads in sleeping rooms shall be light in colour, easily kept clean, and of a durable and nontoxic finish.
- (2) Decks in seafarers' accommodation—

(a) shall be covered by a material which is impervious to damp, and which provides a non-slip and easily maintained surface without crevices where the material meets bulkheads, except in cases where the covering material is carpet;

(b) in cases where the covering material is carpet, it shall be properly laid and of a type that will not readily ignite; and

(c) in the case of galleys, sanitary accommodation and laundry spaces, the decks shall be covered by tiles or similar materials impervious to liquid which are properly laid without gaps, and which provide a non-slip finish.

(3) Subject to paragraph (4), every bulkhead separating any part of the seafarers' accommodation from—

(a) sanitary accommodation;

(b) a laundry;

(c) a drying room;

(d) a galley;

(e) a cold store room; or

(f) a dry provision room,
- shall be of gas tight construction and, other than the bulkheads relevant to subparagraph (e), watertight to a height of at least 23 centimetres in the case of bulkheads without doors, and to a height of at least 10 centimetres in the case of those which are penetrated by doors.
- (4) The requirements of paragraph (3) do not apply to a bulkhead separating two spaces appropriated for the same use, a laundry from a drying room, or a private bathroom from the sleeping room of the person for whose use it is provided.
- Separation of seafarer accommodation from hazards**
- 6 (1) No batteries of a type that may emit gases, either when in use or when being charged, shall be stored in seafarers' accommodation, and there shall be no openings between seafarers' accommodation and spaces where such batteries are stored.
- (2) No manhole or other access to a tank that may contain fuel shall be situated in the seafarers' accommodation.
- (3) Any part of the seafarers' accommodation that adjoins a tank in which oil is carried shall be separated from that tank by either a gas-tight steel division in addition to that which contains the oil, or by a welded steel boundary capable of withstanding a head of water of at least 1.5 metres greater than the maximum service head.
- Openings in bulkheads surrounding accommodation**
- 7 There shall be no openings in any of the bulkheads referred to in regulation 4(6) except—

(a) where sanitary accommodation or changing rooms are provided for the exclusive use of seafarers working in machinery spaces, and situated adjacent to the main machinery space, there may be an opening in the machinery space bulkhead to the sanitary accommodation or changing rooms and an opening from the sanitary accommodation or changing rooms to a passageway forming part of the seafarers' accommodation, provided that a hinged steel, self-closing, gas-tight door is fitted to one of the openings;

(b) where there is no other practicable arrangement, in vessels under 500 GT there may be an opening between a machinery or deck store room and a passageway forming part of the seafarers' accommodation if the opening is closed by a hinged, self closing, steel gas-tight door; and

(c) where there is no other practicable arrangement, the Minister may permit the provision of an opening between a passageway in seafarers' accommodation and one of the spaces in regulation 4(6), provided that the opening is effectively sealed.
- Access and escape arrangements**
- 8 (1) Every entrance into the seafarers' accommodation from the open deck shall be so situated and constructed as to be protected against the weather and sea to the greatest extent practicable, and shall be so situated to be accessible at all times and in all weathers.
- (2) There shall be at least one means of access, either direct or via not more than two rooms forming part of a suite, to any sleeping room, day room, mess room, recreation room, study, office, sanitary accommodation, or galley from an enclosed passageway.
- (3) There shall be two entirely separate escape routes for each compartment, and each route shall lead from the compartment to a suitably sited opening (which may be a normally used entrance) on to the weather deck.
- (4) Escape routes shall not pass through propelling machinery spaces, galleys or other spaces where the
- risk of injury from fire, steam or other similar cause is comparatively high, and shall be so arranged as to provide a ready and unimpeded means of escape from each compartment to the ship's boats, lifeboats or liferafts.
- (5) Where escape routes are by way of stairways or ladders, those stairways or ladders shall be constructed of steel.
- (6) In paragraphs (3) and (4), "compartment" means all living and working spaces within the watertight or fire-resisting boundaries on any one level which are served by inter- communicating passageways.
- Pipes in accommodation spaces**
- 9 (1) Steam pipes, hot water pipes and calorifiers in the seafarers' accommodation shall be efficiently lagged and of adequate scantlings to protect the seafarers' from risk of injury or discomfort, and in particular, cold water pipes shall be lagged where necessary to prevent condensation.
- (2) Pipes for seafarer's accommodation services shall be of adequate dimensions for their purpose, and in particular, soil pipes and waste pipes shall be so constructed as to facilitate cleaning and minimise the risk of obstruction to the free movement of a seafarer.
- (3) Soil pipes shall not pass overhead in messrooms, sleeping rooms, dry provision stores, galleys, or hospitals except where it is impracticable to route them elsewhere, and in every case they shall not pass through any fresh water tank.
- (4) Hawse pipes for anchors shall not pass through seafarers' accommodation.
- (5) Hydraulic supply and return lines, from any hydraulic power pack or hydraulic pump to any machinery or other equipment, shall not pass through seafarer's accommodation.
- Lighting**
- 10 (1) In passenger ships, all parts of the seafarers' accommodation except galleys, pantries, laundries, drying rooms, lockers, and bathrooms shall be adequately lit by natural light wherever reasonably practicable.
- (2) In ships other than passenger ships, all parts of the seafarers' accommodation except galleys, pantries, drying rooms, lockers and bathrooms shall be adequately lit by natural light, and sanitary facilities and passageways shall be lit by natural light wherever reasonably practicable.
- (3) In all ships, an electric lighting system shall be installed in the seafarers' accommodation capable of supplying adequate light to all parts, and includes an electric reading light for each bed that is capable of emitting at least 200 lumens in a sleeping room and 400 lumens in a hospital and fitted with an individual controlling switch at the head of the bed.
- (4) The electric lighting in any part of the seafarers' accommodation shall be considered to be adequate if the illuminance in the horizontal plane, when measured at the points specified for the relevant space as listed in the Schedule to these regulations (when the surface finishes are new), is steady and maintained, within a tolerance of 10%, at the light value prescribed in the Schedule for that relevant space, and complies with any other requirements in the Schedule.
- Ventilation**
- 11 (1) Every enclosed space within the seafarers' accommodation, except a cold store room, shall be provided with a ventilation system capable of maintaining the air in that space in a sufficiently pure condition for the health and comfort of the seafarers in all conditions of weather and climate which the ship is likely to encounter, and shall be capable of being controlled as necessary for that purpose.
- (2) The ventilation system in paragraph (1) shall be—
- (a) a trunked mechanical system capable of ensuring rates of air changes sufficient for the space served;

(b) additional to any ventilation provided by windows, sidecuttles, doors, skylights or other openings not primarily intended for ventilation; and

(c) arranged to generate minimum noise or vibration.
- (3) In the case of ships of under 1000 GT that are regularly employed in tropical areas, or in the Gulfs Area, and also in the case of ships of 1000 GT or more that are not regularly employed north of latitude 50 degrees North or south of latitude 45 degrees South, the ventilation system in paragraphs (1) and (2) shall be an air conditioning system designed to—
- (a) maintain the air at a satisfactory temperature and relative humidity as compared with the outside ambient conditions;

(b) ensure sufficient air changes; and

(c) minimise noise and vibrations.
- (4) In the case of a new ship, the air conditioning system, if fitted, shall also cover any central machinery control room and any central cargo control room.
- (5) In ships provided with an air conditioning system—
- (a) sanitary accommodation;

(b) laundries;

(c) drying rooms;

(d) changing rooms; and

(e) pantries;
- shall also be provided with a mechanical exhaust ventilation system capable of ensuring rates of air change sufficient for the space for which it is provided.
- (6) Any enclosed space in the seafarers' accommodation that is not served by a trunked mechanical ventilation system, or by an air conditioning system, shall be provided with adequate natural ventilation appropriate to the purpose of the space.
- (7) The ventilation system, or air conditioning system, shall be available for use at all times when seafarers are accommodated on board.
- Heating**
- 12 (1) Except in the case of ships trading solely in the tropics or in the Gulfs Area, all sleeping rooms, mess-rooms, and all other spaces in the seafarer's accommodation shall be fitted with a heating system capable of maintaining the temperature in the space at 21 degrees Centigrade at any time when—
- (a) the ventilation system provided for the room or the seafarers' accommodation is working so as to supply 25 cubic metres of air per hour for each seafarer that the accommodation, or room, is designed to accommodate at any one time; and

(b) the temperature of the ambient air is -1 degree Centigrade;
- (2) The heating system shall be operated by electricity, hot air, or hot water and be capable of being turned on or off, and varied easily between off and fully on, by the occupants of any room without tools, and its effectiveness shall not be affected by the use of the ship's other machinery.
- (3) The heating system shall be available and operating at all times when seafarers are accommodated on board in circumstances where heating is required.
- (4) The individual parts of the heating system shall be designed, installed and protected in such a manner that the danger of fire or injury to seafarers is minimised.
- Portlights and windows**
- 13 (1) Subject to paragraph (2), any portlights or windows in a sleeping room, day room, mess-room, recreation room, or hospital ward without which the standard of lighting required for that room by regulation 10 would not be attained, shall—
- (a) if the room is not served by an air conditioning system complying with regulation 11, be of the opening type;

(b) if the room is served by such an air conditioning system, consist of 50 per cent of portlights or windows of the opening type.
- (2) No portlight or window shall be of the opening type if it is required by other regulations to be of the non-opening type.
- (3) Where the application of paragraph (2) precludes the use of natural ventilation, then where natural ventilation or trunked mechanical ventilation is required by regulation 11, there shall instead be required a trunked mechanical ventilation system or an air conditioning system respectively.
- (4) In every ship of 3,000 tons or over, every portlight shall be at least 300 millimetres in diameter.
- Drainage**
- 14 (1) The seafarers' accommodation shall be efficiently drained, and in particular—
- (a) drainage pipes and channels shall be provided wherever necessary to clear water shipped from the sea; and

(b) the soil and other waste water drainage system shall be so arranged and fitted with such water seals, air vents and storm valves as are necessary to prevent siphonage or blow-back, in order to preclude effluvia from entering the seafarers' accommodation.