

The means provided for stopping the power ventilation of the machinery spaces shall be entirely separate from the means provided for stopping ventilation of other spaces.

79. Windows and Sidescuttles—(1) All windows and sidescuttles in bulkheads within accommodation and service spaces and control stations other than those to which the provisions of clause 75(6) and of clause 76(2) of this Code apply, shall be so constructed as to preserve the integrity requirements of the type of bulkheads in which they are fitted.

(2) Notwithstanding the requirements of the tables in clauses 72 and 73 of this Code:

(a) all windows and sidescuttles in bulkheads separating accommodation and service spaces and control stations from weather shall be constructed with frames of steel or other suitable material. The glass shall be retained by a metal glazing bead or angle;

(b) special attention shall be given to the fire integrity of windows facing open or enclosed lifeboat and liferaft embarkation areas and to the fire integrity of windows situated below such areas in such a position that their failure during a fire would impede the launching of, or embarkation into, lifeboats or liferafts.

80. Restricted Use of Combustible Materials—(1) Except in cargo spaces, mail rooms, baggage rooms, or refrigerated compartments of service spaces, all linings, grounds, ceilings and insulations shall be of non-combustible materials. Partial bulkheads or decks used to subdivide a space for utility or artistic treatment shall also be of non-combustible material.

(2) Vapour barriers and adhesives used in conjunction with insulation, as well as insulation of pipe fittings, for cold service systems need not be non-combustible, but they shall be kept to the minimum quantity practicable and their exposed surfaces shall have qualities of resistance to the propagation of flame to the satisfaction of the Chief Surveyor.

(3) The following surfaces shall have low flame-spread characteristics:

(a) exposed surfaces in corridors and stairway enclosures, and of bulkheads, wall and ceiling linings in all accommodation and service spaces and control stations;

(b) concealed or inaccessible spaces in accommodation, service spaces and control stations.

(4) The total volume of combustible facings, mouldings, decorations and veneers in any accommodation and service space shall not exceed a volume equivalent to 2.5mm veneer on the combined area of the walls and ceilings. In the case of ships fitted with an automatic sprinkler system complying with the provisions of the Shipping (Fire Appliances) Regulations 1989, the above volume may include some combustible material used for erection of "C" class divisions.

(5) Veneers used on surfaces and linings covered by the requirements of sub-clause (3) of this clause shall have a calorific value not exceeding 45MJ/m² of the area for the thickness used.

(6) Furniture in the corridors and stairway enclosures shall be kept to a minimum.

(7) Paints, varnishes and other finishes used on exposed interior surfaces shall not be capable of producing excessive quantities of smoke and toxic products.

(8) Primary deck coverings, if applied within accommodation and service spaces and control stations, shall be of approved material which will not readily ignite, or give rise to toxic or explosive hazards at elevated temperatures.

81. Details of Construction—(1) In accommodation and service spaces, control stations, corridors and stairways:

(a) air spaces enclosed behind ceilings, panelling or linings shall be suitably divided by close-fitting draught stops not more than 14m apart;

(b) in the vertical direction, such enclosed air spaces,

including those behind linings of stairways, trunks, and similar structures shall be closed at each deck.

(2) The construction of ceiling and bulkheading shall be such that it will be possible, without impairing the efficiency of the fire protection, for the fire patrols to detect any smoke originating in concealed and inaccessible places, except where in the opinion of the Chief Surveyor there is no risk of fire originating in such places.

82. Protection of Special Category Spaces Above or Below the Bulkhead Deck—(1) The basic principle underlying the provisions of this clause is that as normal main vertical zoning may not be practicable in special category spaces, equivalent protection must be obtained in such spaces on the basis of a horizontal zone concept and by the provision of an efficient fixed fire-extinguishing system. Under this concept a horizontal zone for the purpose of this clause may include special category spaces on more than one deck provided that the total overall clear height for vehicles does not exceed 10m.

(2) The requirements of clauses 75, 77, 78 and clause 105 of this Code for maintaining the integrity of vertical zones shall be applied equally to decks and bulkheads forming the boundaries separating horizontal zones from each other and from the remainder of the ship.

(3) Boundary bulkheads of special category spaces shall be insulated as required for category (11) spaces in table 72.1 or in table 73.1 and the horizontal boundaries as required for category (11) spaces in table 73.3 or in table 73.2.

(4) Indicators shall be provided on the navigating bridge which shall indicate when any fire door leading to or from the special category spaces is closed.

(5) There shall be provided an effective power ventilation system for the special category spaces sufficient to give at least 10 air changes per hour. The system for such spaces shall be entirely separated from other ventilation systems and shall be operating at all times when vehicles are in such spaces.

(a) The Chief Surveyor may require an increased number of air changes when vehicles are being loaded and unloaded. Ventilation ducts serving special category spaces capable of being effectively sealed shall be separated for each such space. The system shall be capable of being controlled from a position outside such spaces.

(b) The ventilation shall be such as to prevent air stratification and the formation of air pockets.

(c) Means shall be provided to indicate on the navigating bridge any loss or reduction of the required ventilating capacity.

(d) Arrangements shall be provided to permit a rapid shutdown and effective closure of the ventilation system in case of fire, taking into account the weather and sea conditions.

(e) Ventilation ducts, including dampers, shall be made of steel and their arrangement shall be to the satisfaction of the Chief Surveyor.

(6) Special category spaces above the bulkhead deck shall comply with the following additional provisions:

(a)(i) In view of the serious loss of stability which could arise due to large quantities of water accumulating on the deck or decks consequent on the operation of the fixed pressure water-spraying system, scuppers shall be fitted so as to ensure that such water is rapidly discharged directly overboard.

(ii) However, where the inboard end of the scuppers would be below the subdivision load line at an angle of heel less than 15 degrees the scuppers or drains shall be led to separate drain tanks with arrangements for pumping accumulated water overboard.

(iii) Where scuppers or drains leading to drain tanks are fitted such scuppers or drains shall be fitted with