closing arrangements. Except where they consist of bolted plates with bolts at watertight spacing, these closing arrangements shall be provided with locking arrangements.

- (d) Where cargo wing tanks are provided, cargo lines below deck shall be installed inside these tanks. However, the Chief Surveyor may permit cargo oil lines to be placed in special ducts which shall be capable of being adequately cleaned and ventilated and be to the satisfaction of the Chief Surveyor. Where cargo wing tanks are not provided cargo oil lines below deck shall be placed in special ducts.
- (5) Where the fitting of a navigation position above the cargo areas is shown to be necessary, it shall be for navigation purposes only and it shall be separated from the cargo tank deck by means of an open space with a height of at least 2m. The fire protection of such a navigation position shall in addition be as required for control spaces in clauses 99(1) and 99(2) of this Code and other provisions, as applicable, of this Part
- (6) Means shall be provided to keep deck spills away from the accommodation and service areas. This may be accomplished by provision of a permanent continuous coaming of a suitable height extending from side to side. Special consideration shall be given to the arrangements associated with stern loading.
- (7) Exterior boundaries of superstructures and deckhouses enclosing accommodation and including any overhanging decks which support such accommodation, shall be insulated to "A-60" standard for the whole of the portions which face the cargo area and for 3m aft of the front boundary. In the case of the sides of those superstructures and deckhouses, such insulation shall be carried as high as is deemed necessary by the Chief Surveyor.
- (8) Entrances, air inlets and openings to accommodation spaces, service spaces and control stations shall not face the cargo area. They shall be located on the transverse bulkhead not facing the cargo area or on the outboard side of the superstructure or deckhouse at a distance of at least 4 per cent of the length of the ship but not less than 3m from the end of the superstructure or deckhouse facing the cargo area. This distance, however, need not exceed 5m.
- (9) No doors shall be fitted within the limits specified in subclause (8) of this clause except that doors to spaces not having access to accommodation spaces, service spaces and control stations may be permitted by the Chief Surveyor. Such spaces may be cargo control stations, provision rooms and storerooms. Where such doors are fitted to spaces located aft of the cargo area, the boundaries of the space shall be insulated to "A-60" standard, with the exception of the boundary facing the cargo area. Bolted plates for removal of machinery may be fitted within the limits specified in sub-clause (8) of this clause. Wheelhouse doors and wheelhouse windows may be located within the limits specified in sub-clause (8) of this clause so long as they are designed to ensure that the wheelhouse can be made rapidly and efficiently gas and vapour tight.
- (10) Windows and sidescuttles facing the cargo area and on the sides of the superstructures and deckhouses within the limits specified in sub-clause (8) of this clause shall be of the fixed (non-opening) type. Such windows and sidescuttles in the first tier on the main deck shall be fitted with inside covers of steel or other equivalent material.
- 98. Structure, Bulkheads within Accommodation and Service Spaces and Details of Construction—(1) For the application of the requirements of clauses 85, 86 and 92 of this Code to tankers, only method IC as defined in clause 85(5)(a) of this Code shall be used.
- (2) Skylights to cargo pump-rooms shall be of steel, shall not contain any glass and shall be capable of being closed from outside the pump-room.
- 99. Fire Integrity of Bulkheads and Decks—(1) In lieu of clause 87 of this Code and in addition to complying with the specific provisions for fire integrity of bulkheads and decks

mentioned elsewhere in this part the minimum fire integrity of bulkheads and decks shall be as prescribed in tables 99.1 and 99.2 in this Code.

- (2) The following requirements shall govern application of the tables:
- (a) Tables 99.1 and 99.2 of this Code shall apply respectively to the bulkhead and decks separating adjacent spaces.
- (b) For determining the appropriate fire integrity standards to be applied to divisions between adjacent spaces, such spaces are classified according to their fire risk as shown in categories (1) to (10) below. The title of each category is intended to be typical rather than restrictive. The number in parentheses preceding each category refers to the applicable column or row in the tables.

(1) Control Stations

Spaces containing emergency sources of power and lighting.

Wheelhouse and chartroom.

Spaces containing the ship's radio equipment.

Fire-extinguishing rooms, fire control rooms and fire-recording stations.

Control room for propulsion machinery when located outside the machinery space.

Spaces containing centralised fire alarm equipment.

(2) Corridors

Corridors and lobbies

(3) Accommodation spaces

Spaces as defined in clause ${\bf 1}$ of this Code, excluding corridors.

(4) Stairways

Interior stairways, lifts and escalators (other than those wholly contained within the machinery spaces) and enclosures thereto.

In this connection, a stairway which is enclosed only at one level shall be regarded as part of the space from which it is not separated by a fire door.

(5) Service spaces (low risk)

Lockers and store-rooms having an area of less than $2m^2$, drying rooms and laundries.

(6) Machinery spaces of category A

Spaces as defined in clause 1 of this Code.

(7) Other machinery spaces

Spaces as defined in clause 1 of this Code, excluding machinery spaces of category A.

(8) Cargo pump-rooms

Spaces containing cargo pumps and entrances and trunks to such spaces.

(9) Service spaces (high risk)

Galleys, pantries containing cooking appliances, paint and lamp rooms, lockers and store-rooms having an area of $2m^2$ or more, workshops other than those forming part of the machinery spaces.

(10) Open decks

Open deck spaces and enclosed promenades having no fire risk. Air spaces (the space outside superstructures and deckhouses).

- (3) Continuous "B" class ceilings or linings, in association with the relevant decks or bulkheads, may be accepted as contributing, wholly or in part, to the required insulation and integrity of a division.
- (4) External boundaries which are required in clause 98(1) of this Code to be of steel or other equivalent material may be pierced for the fitting of windows and sidescuttles provided