

(3) The height of the lower edge of the front windows is limited to prevent any obstruction of the forward view previously described in this section.

(4) The height of the upper edge of the front windows allows a forward view of the horizon at the conning position, for a person with a height of eye of 1.8 meters (71 inches), when the vessel is at a forward pitch angle of 20 degrees.

(c) Polarized or tinted windows must not be fitted.

[CGD 85-099, 55 FR 32249, Aug. 8, 1990]

### **Subpart 190.03—Subdivision and Stability**

#### **§ 190.03-1 General.**

Each vessel must comply with the applicable requirements in Subchapter S of this chapter.

[CGD 79-023, 48 FR 51053, Nov. 4, 1983]

### **Subpart 190.05—General Fire Protection**

#### **§ 190.05-1 Application.**

(a) The provisions of this subpart shall apply to all vessels, except as noted otherwise in this subpart.

(b) Non-self-propelled vessels of less than 300 gross tons shall not be subject to the provisions of this subpart.

#### **§ 190.05-3 Fire hazards to be minimized.**

(a) The general construction of the vessel shall be such as to minimize fire hazards.

#### **§ 190.05-5 Woodwork insulated from heated surfaces.**

(a) Internal combustion engine exhausts, boiler, and galley uptakes, and similar sources of ignition shall be kept clear of and suitably insulated from any woodwork or other combustible matter.

#### **§ 190.05-10 Chemical storeroom and lamp room construction.**

(a) Chemical storerooms, lamp, paint, and oil lockers and similar compartments shall be constructed of steel or shall be wholly lined with metal.

#### **§ 190.05-15 Segregation of spaces containing the emergency source of electric power.**

(a) When a compartment containing the emergency source of electric power, or vital components thereof, adjoins a space containing either the ship's service generators or machinery necessary for the operation of the ship's service generators, all common bulkheads and/or decks shall be protected by approved "structural insulation" or other approved material. This protection shall be such as to be capable of preventing an excessive temperature rise in the space containing the emergency source of electric power, or vital components thereof, for a period of at least 1 hour in the event of fire in the adjoining space. Bulkheads or decks meeting Class A-60 requirements, as defined by §72.05-10 of Subchapter H (Passenger Vessels) of this chapter, will be considered as meeting the requirements of this paragraph.

#### **§ 190.05-20 Segregation of chemical laboratories and chemical storerooms.**

(a) The provisions of this section shall apply to all vessels contracted for on or after March 1, 1968.

(b) Chemical storerooms shall not be located in horizontal proximity to nor below accommodation or safety areas.

(c) Chemical storerooms shall not be located adjacent to the collision bulkhead, nor boundary divisions of the boilerroom, engineroom, galley, or other high fire hazard area.

(d) Chemical laboratories shall not be located adjacent to nor immediately below safety areas. Wherever possible they shall be similarly separated from accommodation spaces and high fire hazard areas such as the galley.

### **Subpart 190.07—Structural Fire Protection**

#### **§ 190.07-1 Application.**

(a) The provisions of this subpart, with the exception of §190.07-90, shall apply to all vessels of 4,000 gross tons and over carrying not more than 150 persons and contracted for on or after March 1, 1968.

(b) The provisions of this subpart, with the exception of §190.07-90, shall

§ 190.07-5

apply to all vessels of 300 gross tons and over, but less than 4,000 gross tons, carrying in excess of 16 persons in the scientific party but not more than 150 persons and contracted for on or after March 1, 1968.

(c) Vessels contracted for prior to March 1, 1968, shall meet the requirements of § 190.07-90.

(d) Those vessels which carry more than 150 persons shall meet the requirements in §§ 72.05-5 through 72.05-60 of Subchapter H (Passenger Vessels) of this chapter.

§ 190.07-5 Definitions.

(a) Standard fire tests. A standard fire test is one which develops in the test furnace a series of time temperature relationships as follows:

- 5 minutes—1,000° F.
- 10 minutes—1,300° F.
- 30 minutes—1,550° F.
- 60 minutes—1,700° F.

(b) A Class divisions. Bulkheads or decks of the A Class shall be composed of steel or equivalent metal construction, suitably stiffened and made intact with the main structure of the vessel; such as shell, structural bulkheads, and decks. They shall be so constructed, that if subjected to the standard fire test, they would be capable of preventing the passage of flame and smoke for 1 hour.

(c) B Class bulkheads. Bulkheads of the B Class shall be constructed with approved incombustible materials and made intact from deck to deck and to shell or other boundaries. They shall be so constructed that, if subjected to the standard fire test, they would be capable of preventing the passage of flame for one-half hour.

(d) C Class divisions. Bulkheads or decks of the C Class shall be constructed of approved incombustible materials, but need meet no requirements relative to the passage of flame.

(e) Steel or other equivalent metal. Where the term steel or other equivalent metal is used in this subpart, it is intended to require a material which, by itself or due to insulation provided, has structural and integrity qualities equivalent to steel at the end of the applicable fire exposure.

(f) Approved material. Where in this subpart approved materials are re-

quired, they refer to materials approved under the applicable subparts of part 164 of Subchapter Q (Specifications) of this chapter, as follows:

Deck coverings .....	164.006
Structural insulation .....	164.007
Bulkhead panels .....	164.008
Incombustible materials .....	164.009
Interior finish .....	164.012

[CGFR 67-83, 33 FR 1125, Jan. 27, 1968, as amended by CGD 74-155, 41 FR 17910, Apr. 29, 1976]

§ 190.07-10 Construction.

(a) The hull, superstructure, structural bulkheads, decks, and deckhouses shall be constructed of steel. Alternately, the Commandant may permit the use of other suitable material in special cases, having in mind the risk of fire.

(b) The boundary bulkheads of general laboratory areas, chemical storerooms, galleys, paint and lamp lockers and emergency generator rooms shall be of "A" class construction.

(1) Permanently installed divisional bulkheads between laboratories spaces within a general laboratory area may be of B or C class construction.

(2) Temporary divisional bulkheads between laboratory spaces within a general laboratory area may be constructed of combustible materials when they are necessary to facilitate a specific scientific mission.

(c) The boundary bulkheads and decks separating the accommodations and control stations from hold and machinery spaces, galleys, main pantries, laboratories, and storerooms, other than small service lockers, shall be of "A" Class construction.

(1) The boundary bulkheads and decks separating general laboratory areas of 500 square feet or less from accommodations and control stations shall be of "A-15" Class construction as defined by § 72.05-10 of Subchapter H (Passenger Vessels) of this chapter.

(2) The boundary bulkheads and decks separating general laboratory areas of over 500 square feet from accommodations and control stations shall be of "A-30" Class construction as defined by § 72.05-10 of Subchapter H (Passenger Vessels) of this chapter.