

§ 190.10-10

§ 190.10-10 Location.

(a) The two means of escape shall be as remote as practicable so as to minimize the possibility of one incident blocking both escapes.

§ 190.10-15 Vertical ladders not accepted.

(a) Vertical ladders and deck scuttles shall not in general be considered satisfactory as one of the required means of escape. However, where it is demonstrated that the installation of a stairway would be impracticable, a vertical ladder may be used as the second means of escape.

§ 190.10-20 No means for locking doors.

(a) No means shall be provided for locking door giving access to either of the two required means of escape except that crash doors or locking devices, capable of being easily forced in an emergency, may be employed provided a permanent and conspicuous notice to this effect is attached to both sides of the door. This paragraph shall not apply to outside doors to deck-houses where such doors are locked by key only and such key is under the control of one of the vessel's officers.

§ 190.10-25 Stairway size.

(a) Stairways shall be of sufficient width having in mind the number of persons having access to such stairs for escape purposes.

(b) All interior stairways, other than those within the machinery spaces, shall have minimum width of 28 inches. The angle of inclination with the horizontal of such stairways shall not exceed 50°.

(c) Special consideration for relief may be given if it is shown to be unreasonable or impracticable to meet the requirements in this section.

§ 190.10-30 Dead end corridors.

(a) Dead end corridors, or the equivalent, more than 40 feet in length shall not be permitted.

§ 190.10-35 Public spaces.

(a) In all cases, public spaces having a deck area of over 300 square feet shall have at least two exits. Where prac-

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ticable, these exits shall give egress to different corridors, rooms, or spaces to minimize the possibility of one incident blocking both exits.

§ 190.10-40 Access to lifeboats.

(a) The stairways, corridors, and doors shall be so arranged as to permit a ready and direct access to the various lifeboat and liferaft embarkation areas.

§ 190.10-45 Weather deck communications.

(a) Vertical communication shall be provided between the various weather decks by means of permanent inclined ladders.

§ 190.10-90 Vessels contracted for prior to March 1, 1968.

(a) Existing arrangements previously approved will be considered satisfactory so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs and alterations may be made to the same standards as the original design: *Provided*, That in no case will a greater departure from the standards of §§ 190.10-5 through 190.10-45 be permitted than presently exists. Nothing in this paragraph shall be construed as exempting any vessel from having two means of escape from all main compartments where persons on board may be quartered or normally employed.

Subpart 190.15—Ventilation

§ 190.15-1 Application.

(a) The provisions of this subpart, with the exception of § 190.15-90, shall apply to all vessels other than non-self-propelled vessels of less than 300 gross tons, contracted for on or after March 1, 1968.

(b) Vessels contracted for prior to March 1, 1968, shall meet the requirements of § 190.15-90.

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

§ 190.15-5 Vessels using fuel having a flashpoint of 110 °F. or lower.

(a) Spaces containing machinery which uses, or tanks which contain,

fuel having a flashpoint of 110° F. or lower shall have natural supply and mechanical exhaust ventilation as required by this section.

(b) The mechanical exhaust system shall be such as to assure the air changes as noted in Table 190.15-5(b) depending on the size of the space.

TABLE 190.15-5(b)

Size of space, cubic feet		Minute per air change
Over	Not over	
.....	500	2
500	1000	3
1000	1500	4
1500	5

(c) Exhaust blower motors, unless of a totally enclosed, explosion-proof type, shall be located outside of the ducts and outside of the compartment required to be ventilated. Exhaust blower motors if mounted in any compartment shall be located as high above the bilge as practicable. Blower blades shall be nonsparking with reference to their housings.

(d) Exhaust blower switches shall be located outside of any space required to be ventilated by this section, and shall be of the type interlocked with the ignition switch so that the blowers are started before the engine ignition is switched on. A red warning sign at the switch shall state that the blowers shall be operated prior to starting the engines for a sufficient time to insure at least one complete change of air in the compartments.

(e) The area of the ducts shall be such as to limit the air velocity to a maximum of 2,000 feet per minute. Ducts may be of any shape: *Provided*, That in no case shall one cross section dimension exceed twice the other.

(f) At least two inlet ducts shall be located at one end of the compartment and they shall extend to the lowest part of the compartment or bilge on each side. Similar exhaust ducts shall be led to the mechanical exhaust system from the lowest part of the compartment or bilge on each side of the compartment at the end opposite from that at which the inlet ducts are fitted. These ducts shall be so installed that ordinary collection of water in the bilge will not close off the ducts.

(g) All ducts shall be of steel construction and reasonably gastight from end to end. The ducts shall lead as direct as possible and be properly fastened and supported.

(h) All supply ducts shall be provided with cowls or scoops having a free area not less than twice the required duct area. When the cowls or scoops are screened, the mouth area shall be increased to compensate for the area of the screen wire. Dampers shall not be fitted in the supply ducts. Cowls or scoops shall be kept open at all times except when the stress of weather is such as to endanger the vessel if the openings are not temporarily closed. Supply and exhaust openings shall not be located where the natural flow of air is unduly obstructed, or adjacent to possible sources of vapor ignition, nor shall they be so located that exhaust air may be taken into the supply vents.

(i) Provision shall be made for closing all cowls or scoops when the fixed carbon dioxide system is operated.

§ 190.15-10 Ventilation for closed spaces.

(a) All enclosed spaces within the vessel shall be properly vented or ventilated. Means shall be provided to close off all vents and ventilators.

(b) Means shall be provided for stopping all fans in ventilation systems serving the chemical laboratories, scientific laboratories, chemical storerooms, and machinery spaces and for closing all doorways, ventilators, and annular spaces around funnels and other openings to such spaces, from outside these spaces, in case of fire.

(c) See §§194.15-5 and 194.20-5 of this subchapter for ventilation of chemical laboratories, scientific laboratories, and storerooms.

§ 190.15-15 Ventilation for living spaces and quarters.

(a) All living spaces shall be adequately ventilated in a manner suitable to the purpose of the space.

(b) All spaces used as quarters for crewmembers and scientific personnel shall be ventilated by a mechanical system unless it can be shown that a natural system will provide adequate ventilation. By a natural system is meant those spaces so located that the