

(c) *Use of general purpose resin.* General purpose resins may be used instead of fire retardant resins if the following additional requirements are met:

(1) *Cooking and heating appliances.* Galleys must be surrounded by B-15 Class fire boundaries. This may not apply to concession stands that are not considered high fire hazards areas (galleys) as long as they do not contain medium to high heat appliances such as deep fat fryers, flat plate griddles, and open ranges with heating surfaces exceeding 121 ° C (250 ° F). Open flame systems for cooking and heating are not allowed.

(2) *Sources of ignition.* Electrical equipment and switch boards must be protected from fuel or water sources. Fuel lines and hoses must be located as far as practical from heat sources. Internal combustion engine exhausts, boiler and galley uptakes, and similar sources of ignition must be kept clear of and suitably insulated from any woodwork or other combustible matter. Internal combustion engine dry exhaust systems must be installed in accordance with ABYC Standard P-1.

(3) *Fire detection and extinguishing systems.* Fire detection and extinguishing systems must be installed in compliance with §§181.400 through 181.420 of this chapter. Additionally, all fiber reinforced plastic (FRP) vessels constructed with general purpose resins must be fitted with a smoke activated fire detection system of an approved type, installed in accordance with §76.27 in subchapter H of this chapter, in all accommodation spaces, all service spaces, and in isolated spaces such as voids and storage lockers that contain an ignition source such as electric equipment or piping for a dry exhaust system.

(4) *Machinery space boundaries.* Boundaries that separate machinery spaces from accommodation spaces, service spaces, and control spaces must be lined with noncombustible panels or insulation approved in accordance with §164.009 in subchapter Q of this chapter, or other standard specified by the Commandant.

(5) *Furnishings.* Furniture and furnishings must comply with §116.423 in subchapter K of this chapter.

(d) *Limitations on the use of general purpose resin—(1) Overnight accommodations.* Vessels with overnight passenger accommodations for more than 12 persons must not be constructed with general purpose resin.

(2) *Gasoline fuel systems.* Vessels with engines powered by gasoline or other fuels having a flash point of 43.3° C (110° F) or lower must not be constructed with general purpose resin, except for vessels powered by outboard engines with portable fuel tanks stored in an open area aft, if, as determined by the cognizant OCMI, the arrangement does not produce an unreasonable hazard.

(3) *Cargo.* Vessels carrying or intended to carry hazardous combustible or flammable cargo must not be constructed with general purpose resin.

[CGD 85-080, 61 FR 961, Jan. 10, 1996; 61 FR 24464, May 15, 1996, as amended at 62 FR 51356, Sept. 30, 1997; USCG-1999-6216, 64 FR 53228, Oct. 1, 1999]

Subpart E—Escape Requirements

§ 177.500 Means of escape.

(a) Except as otherwise provided in this section, each space accessible to passengers or used by the crew on a regular basis, must have at least two means of escape, one of which must not be a watertight door.

(b) The two required means of escape must be widely separated and, if possible, at opposite ends or sides of the space to minimize the possibility of one incident blocking both escapes.

(c) Subject to the restrictions of this section, means of escape may include normal exits and emergency exits, passageways, stairways, ladders, deck scuttles, and windows.

(d) The number and dimensions of the means of escape from each space must be sufficient for rapid evacuation in an emergency for the number of persons served. In determining the number of persons served, a space must be considered to contain at least the number of persons as follows:

(1) Passenger overnight accommodation spaces: Designed capacity;

(2) Accommodation spaces having fixed seating for passengers: Maximum seating capacity;

(3) Public spaces, including spaces such as casinos, restaurants, club

rooms, and cinemas, and public accommodation spaces as defined in § 175.400 of this subchapter, except overnight accommodation spaces: One person may be permitted for each 0.9 square meters (10 square feet) of deck area. In computing such deck area, the following areas must be excluded:

(i) Areas for which the number of persons permitted is determined using the fixed seating criterion;

(ii) Obstructions, including stairway and elevator enclosures, elevated stages, bars, and cashier stands, but not including slot machines, tables, or other room furnishings;

(iii) Toilets and washrooms;

(iv) Interior passageways less than 860 millimeters (34 inches) wide and passageways on open deck less than 710 millimeters (28 inches) wide;

(v) Spaces necessary for handling lifesaving equipment, anchor handling equipment, or line handling gear, or in way of sail booms or running rigging; and

(vi) Bow pulpits, swimming platforms, and areas that do not have a solid deck, such as netting on multi hull vessels;

(4) Crew overnight accommodation spaces: Two-thirds designed capacity; and

(5) Work spaces: Occupancy under normal operating conditions.

(e) The dimensions of a means of escape must be such as to allow easy movement of persons when wearing life jackets. There must be no protrusions in means of escape that could cause injury, ensnare clothing, or damage life jackets.

(f) The minimum clear opening of a door or passageway used as a means of escape must not be less than 810 millimeters (32 inches) in width, however, doors or passageways used solely by crew members must have a clear opening not less than 710 millimeters (28 inches). The sum of the width of all doors and passageways used as means of escape from a space must not be less than 8.4 millimeters (0.333 inches) multiplied by the number of passengers for which the space is designed.

(g) A dead end passageway, or the equivalent, of more than 6.1 meters (20 feet) in length is prohibited.

(h) Each door, hatch, or scuttle, used as a means of escape, must be capable of being opened by one person, from either side, in both light and dark conditions. The method of opening a means of escape must be obvious, rapid, and of adequate strength. Handles and securing devices must be permanently installed and not capable of being easily removed. A door, hatch or scuttle must open towards the expected direction of escape from the space served.

(i) A means of escape which is not readily apparent to a person from both inside and outside the space must be adequately marked in accordance with § 185.606 of this chapter.

(j) A ladder leading to a deck scuttle may not be used as a means of escape except:

(1) On a vessel of not more than 19.8 meters (65 feet) in length, a vertical ladder and a deck scuttle may be used as not more than one of the means of escape from passenger accommodation space; or

(2) As not more than one of the means of escape from any crew accommodation space or work space.

(k) Each ladder used as a means of escape must be mounted at least 180 millimeters (7 inches) from the nearest permanent object in back of the ladder. Rungs must be:

(1) At least 405 millimeters (16 inches) in width; and

(2) Not more than 305 millimeters (12 inches) apart, and uniformly spaced for the length of the ladder with at least 114 millimeters (4.5 inches) clearance above each rung.

(l) When a deck scuttle serves as a means of escape, it must not be less than 455 millimeters (18 inches) in diameter and must be fitted with a quick acting release and a holdback device to hold the scuttle in an open position.

(m) Footholds, handholds, ladders, and similar means provided to aid escape, must be suitable for use in emergency conditions, of rigid construction, and permanently fixed in position, unless they can be folded, yet brought into immediate service in an emergency.

(n) On a vessel of not more than 19.8 meters (65 feet) in length, a window or windshield of sufficient size and proper accessibility may be used as one of the

required means of escape from an enclosed space, provided it:

- (1) Does not lead directly overboard;
 - (2) Can be opened or is designed to be kicked or pushed out; and
 - (3) Is suitably marked.
- (o) Only one means of escape is required from a space where:
- (1) The space has a deck area less than 30 square meters (322 square feet);
 - (2) There is no stove, heater, or other source of fire in the space;
 - (3) The means of escape is located as far as possible from a machinery space or fuel tank; and
 - (4) If an accommodation space, the single means of escape does not include a deck scuttle or a ladder.
- (p) Alternative means of escape from spaces may be provided if acceptable to the cognizant OCMI.

[CGD 85-080, 61 FR 961, Jan. 10, 1996; 62 FR 64306, Dec. 5, 1997]

Subpart F—Ventilation

§ 177.600 Ventilation of enclosed and partially enclosed spaces.

- (a) An enclosed or partially enclosed space within a vessel must be adequately ventilated in a manner suitable for the purpose of the space.
- (b) A power ventilation system must be capable of being shut down from the pilot house.
- (c) An enclosed passenger or crew accommodation space and any other space occupied by a crew member on a regular basis must be ventilated by a power ventilation system unless natural ventilation in all ordinary weather conditions is satisfactory to the OCMI.
- (d) An exhaust duct over a frying vat or a grill must be of at least 11 U.S. Standard Gauge steel.
- (e) Combustibles and other foreign materials are not allowed within ventilation ducts. However, metal piping and electrical wiring installed in a metal protective enclosure may be installed within ventilation ducts, provided that the piping or the wiring does not interfere with the operation of fire dampers. Electrical wiring and piping

may not be installed in an exhaust duct over a frying vat or grill.

[CGD 85-080, 61 FR 961, Jan. 10, 1996, as amended at 62 FR 51356, Sept. 30, 1997]

§ 177.620 Ventilation of machinery and fuel tank spaces.

In addition to the requirements of this subpart, ventilation systems for spaces containing machinery or fuel tanks must comply with the requirements of part 182 of this chapter.

Subpart G—Crew Spaces

§ 177.700 General requirements.

- (a) A crew accommodation space and a work space must be of sufficient size, adequate construction, and with suitable equipment to provide for the safe operation of the vessel and the protection and accommodation of the crew in a manner practicable for the size, facilities, service, route, speed, and modes of operation of the vessel.
- (b) The deck above a crew accommodation space must be located above the deepest load waterline.

§ 177.710 Overnight accommodations.

Overnight accommodations must be provided for all crew members if the vessel is operated more than 12 hours in a 24 hour period, unless the crew is put ashore and the vessel is provided with a new crew.

[CGD 85-080, 61 FR 961, Jan. 10, 1996, as amended by CGD 97-057, 62 FR 51050, Sept. 30, 1997]

Subpart H—Passenger Accommodations

§ 177.800 General requirements.

- (a) All passenger accommodations must be arranged and equipped to provide for the safety of the passengers in consideration of the route, modes of operation, and speed of the vessel.
- (b) The height of ceilings in a passenger accommodation space, including aisles and passageways, must be at least 1,880 millimeters (74 inches), but may be reduced at the sides of a space to allow the camber, wiring, ventilation ducts, and piping.
- (c) A passenger accommodation space must be maintained to minimize fire