

with either the small or large scale tests.

(4) Rugs and carpet may be used in addition to deck coverings. Rugs and carpets must be constructed of 100 percent wool or equivalent as determined by a flame spread rating not exceeding 75 and a smoke developed rating not exceeding 100 when tested according to ASTM E 84 (incorporated by reference, see § 114.600) or have a critical radiant flux not less than 0.8 watts per square centimeter (18 BTU's per hour per square inch) when tested according to ASTM E 648 (incorporated by reference, see § 114.600) "Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source," and with a specific optical density not to exceed 450 in both flaming and nonflaming modes when tested according to ASTM E 662 (incorporated by reference, see § 114.600) "Specific Optical Density of Smoke generated by Solid Materials." Also:

(i) Rugs and carpets shall not extend up bulkheads or vertical surfaces more than 10 centimeters (4 inches) above the deck.

(ii) Rugs and carpets are not permitted in machinery spaces, high risk service spaces, or areas where the spillage or leakage of flammable or combustible liquids is possible including areas immediately adjacent to bar service areas.

(b) Passageways and stairway enclosures shall contain only fire resistant furnishings. In addition, all upholstered chairs, sofas, etc., in these areas, shall be tested and meet the requirements in UL 1056 or have padding and upholstery of approved fire resistant materials.

[CGD 85-080, 61 FR 900, Jan. 10, 1996, as amended by USCG-2000-7790, 65 FR 58462, Sept. 29, 2000]

§ 116.425 Deck coverings.

(a) Except as provided in this section, deck coverings used for leveling or finishing purposes in control spaces, stairway enclosures, passageways, accommodation spaces and service spaces must be noncombustible.

(1) Materials approved under § 164.006 in subchapter Q of this chapter may be used in thicknesses not to exceed the approved thickness.

(2) Combustible deck leveling and finishing materials which are not approved under § 164.006 in subchapter Q of this chapter may be used in a thickness not to exceed 9.5 millimeters (.375 inches).

(b) [Reserved]

§ 116.427 Fire load of accommodation and service spaces.

(a) Fire load calculations must be submitted by the owner for review to the Marine Safety Center when:

(1) A space is designated as a low risk accommodation space by the owner; or

(2) The cognizant OCMI determines, based on the quantity of combustibles, that the fire load present in a high risk accommodations space may exceed 37.5 kg (7.5 pounds) of combustibles per square meter (square foot) of deck area.

(b) When required under paragraph (a) of this section, fire load calculations must include all combustible construction and outfitting materials in addition to all loose or freestanding combustibles intended for use or stowage in the space. This includes but is not limited to: furniture, furnishings, carpets, rugs, combustible deck coverings, draperies, combustible interior finish, veneers, trim, and decorations, electrical cable insulation, plastic piping, light diffusers, mattresses, bedding, lifesaving equipment, and similar materials. The maximum fire load of a low risk accommodation or low risk service space as determined by fire load calculations must not exceed 15.0 kg (3 pounds) of combustibles per square meter (square foot) of deck area. The maximum fire load of a high risk accommodation space as determined by fire load calculations must not exceed 37.5 kg (7.5 pounds) of combustibles per square meter (square foot) of deck area.

[CGD 85-080, 61 FR 900, Jan. 10, 1996, as amended at 62 FR 51349, Sept. 30, 1997]

§ 116.430 Insulation other than for structural fire protection.

(a) Combustible insulation may be used for pipe and machinery covering or lagging within a machinery space, or used in an individual refrigerator

§ 116.433

box if the refrigerator box was purchased with the insulation already installed.

(b) Except as allowed by paragraph (a) of this section, any insulation installed for purposes other than structural fire protection and all material incidental to its installation must be noncombustible or approved under § 164.009 in subchapter Q of this chapter. Surfacing material applied to such insulation must be noncombustible or may meet the requirements of § 116.422(c) of this part.

§ 116.433 Windows and air ports in fire control boundaries.

(a) Windows or air ports must be of tempered or laminated glass of at least 6.5 millimeters (0.25 inches) in thickness. The use of other glazing material such as polycarbonate sheets may be approved by the Commandant for specific installations.

(b) Windows or air ports in bulkheads adjacent to passageways must not extend below a point 910 millimeters (36 inches) above the deck unless storm rails, that are structurally independent of the glass, are fitted in the passageway.

(c) Windows or air ports in A-Class bulkheads must be fitted with frames of steel or equivalent material. Glazing beads or angles of steel or equivalent material must be installed to hold glass in place in windows or air ports in a fire control boundary in event of a fire if:

(1) Where a steel frame is used, it is not arranged to retain the glass in place; or

(2) A frame of aluminum or other material with low melting point is used.

(d) A window or air port that is adjacent to an embarkation station, escape route, or survival craft stowage must be:

(1) Of A-Class construction; or

(2) Fitted with shutters, operable from outside the space, of steel or equivalent material.

(e) A window installed in an internal fire control boundary must comply with the requirements of § 72.05-30 in subchapter H of this chapter, except that fire window frames and glazing material listed by Underwriters Lab-

46 CFR Ch. I (10-1-06 Edition)

oratories may be used in B-Class bulkheads.

(f) Windows in doors in fire control boundaries must comply with the requirements of paragraphs (a) through (e) of this section.

(g) Windows complying with paragraphs (a) through (d) of this section may be installed in the external boundaries of stairtowers if there are no unprotected openings in the side of the vessel below the windows and if the windows are not exposed to any other parts of the vessel at an angle of less than 180 degrees.

[CGD 85-080, 61 FR 900, Jan. 10, 1996, as amended at 62 FR 51350, Sept. 30, 1997]

§ 116.435 Doors.

(a) A door, other than a watertight door, must meet the requirements of this section.

(b) A door in a fire control boundary must meet the following requirements:

(1) A door in an accommodation space, stairway, stairtower, or corridor must be oriented vertically;

(2) A door must be capable of operation from either side by one person;

(3) With the exception of staterooms, a door in an accommodation space, stairway, stairtower, passageway, or control space must open in the direction of escape, where practicable;

(4) Combustible veneers may be used on doors subject to the same restrictions as the fire control boundary in which the doors are fitted;

(5) Door frames must be of rigid construction and provide at least a 12.7 millimeter (0.5 inch) overlap at the sides and top, except:

(i) Double doors capable of independent operation and latching may have a clearance between the doors of not more than 3.2 millimeters (0.125 inches). However, if one door must always be closed first, means shall be provided to ensure that the doors close in the proper order; and

(ii) A double swing door, may have a clearance of not more than 3.2 millimeters (0.125 inches) at the top and sides;

(6) The maximum width of an individual door must not exceed 1200 millimeters (48 inches); and

(7) Hose ports, if fitted, must be in the lower corner of the door opposite the hinge so a hose may pass through