

**§ 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 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 Laboratories 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

**§ 116.435**

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

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 the doorway when the door is open and still allow the door to close over the hose. The hose port should be approximately 152 millimeters (6 inches) square. A self-closing hinged or pivoted steel or equivalent material cover must be fitted in the opening.

(c) Doors in A-Class fire control boundaries must meet the following additional requirements:

(1) A door in a bulkhead required to be A-60, A-30, or A-15 Class must be of hollow steel or equivalent material construction, solidly filled with approved structural insulation, and capable of meeting the requirements of an A-15 Class bulkhead;

(2) A door in a bulkhead required to be A-0 Class must be of solid or hollow steel or equivalent material construction, and capable of meeting the requirements of an A-0 Class bulkhead;

(3) A door must have a latch with a minimum throw of 20 millimeters (0.75 inches);

(4) A door must not have vent grilles or louvers;

(5) A door must not be undercut more than 12.7 millimeters (0.5 inches) above the door sill or deck covering. Rugs and carpets must not pass through doorways, but linoleum and similar deck coverings may;

(6) A door in a stairtower, stairway, and main vertical zone bulkhead must meet the following additional requirements:

(i) A door must be of the self-closing type capable of closing against a 3.5 list of the vessel; and

(ii) Holdback hooks are not allowed. If installed, a hold back mechanism for a door must allow the door to be released:

(A) Locally;

(B) Upon a signal from a control space; and

(C) Upon disruption of the power system.

(7) Horizontal doors (doors installed in decks) are allowed only for access to spaces that are accessible only to crew members and are used only by crew members, subject to the following requirements:

(i) The door must be self-closing with a closure time of not less than 5 seconds and not more than 10 seconds, and be capable of closing against a 3.5 list of the vessel;

(ii) Holdback hooks are not allowed. If installed, a holdback mechanism for a door must allow the door to be released:

(A) Locally;

(B) Upon a signal from a control space; and

(C) Upon disruption of the power system.