

§ 174.210

opening closed by a weathertight door or hatch-cover, or a tank vent fitted with a ball check-valve. This opening does not include an opening closed by a—

- (i) Watertight manhole-cover;
- (ii) Flush scuttle;
- (iii) Small hatch-cover for a watertight cargo-tank that maintains the high integrity of the deck;
- (iv) Watertight door in compliance with § 174.210 of this subpart; or
- (v) Side scuttle of the non-opening type.

(2) *Angle of heel.* The angle of heel must not exceed 15 degrees.

(3) *Range of stability.* Through an angle of 20 degrees beyond its position of equilibrium after flooding, an OSV must meet the following conditions:

- (i) The righting arm curve must be positive.
- (ii) The righting arm must be at least 100 millimeters (4 inches).
- (iii) Each submerged opening must be weathertight. (A tank vent fitted with a ball check-valve is weathertight.)

(4) *Progressive flooding.* Piping, ducts, or tunnels within the assumed extent of damage must be either—

- (i) Equipped with arrangements, such as stop check-valves, to prevent progressive flooding of the spaces with which they connect; or
- (ii) Assumed in the calculations required by paragraph (a) of this section to permit progressive flooding of the spaces with which they connect.

(d) *Buoyancy of superstructure.* For paragraph (a) of this section, the buoyancy of any superstructure directly above the side damage must be considered in the most unfavorable condition.

TABLE 174.207(a)—EXTENT OF DAMAGE

	Collision Penetration
Longitudinal extent (vessels with LBP not greater than 45 meters [143 feet]).	.1L or 1.8 meters (6 feet); whichever is greater in length.
Longitudinal extent (vessels with LBP greater than 45 meters [143 feet]).	3 meters (10 feet) + .03L.
Transverse extent*	760 millimeters (30 inches).

TABLE 174.207(a)—EXTENT OF DAMAGE—Continued

Vertical extent	From baseline upward without limit.
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*The transverse penetration applies inboard from the side of the vessel, at right angles to the centerline, at the level of the deepest load waterline.

TABLE 174.207(b)—PERMEABILITY OF SPACES

Spaces and tanks	Permeability
Storerooms	60 percent.
Accommodations	95 percent.
Machinery	85 percent.
Voids and passageways	95 percent.
Dry-bulk tanks	0 (*) or 95 percent.
Consumable-liquid tanks	0 (*) or 95 percent.
Other liquid tanks	0 (*) 0 (**) or 95 percent.

*Whichever results in the more disabling condition.
 **If tanks are partly filled, the permeability must be determined from the actual density and amount of liquid carried.

§ 174.210 **Watertight doors in watertight bulkheads.**

(a) This section applies to each vessel with watertight doors in bulkheads made watertight in compliance with this chapter.

(b) Except as provided by paragraph (c) of this section, each watertight door must comply with subpart H of part 170 of this chapter.

(c) A Class-1 door may be installed at any place if—

(1) The door has a quick-acting closing-device operative from both sides of the door;

(2) The door is designed to withstand a head of water equivalent to the depth from the sill of the door to the bulkhead deck or 3 meters (10 feet), whichever is greater; and

(3) The vessel's pilothouse contains a visual indicator showing whether the door is open or closed.

(d) Each watertight door must be marked in compliance with § 131.893 of this chapter.

(e) If a Class-1 door is installed, the vessel's stability letter will require the master to ensure that the door is always closed except when being used for access.

§ 174.215 **Drainage of weather deck.**

The weather deck must have open rails to allow rapid clearing of water, or must have freeing ports in compliance with § 42.15-70 of this chapter.