Subpart D [Reserved]

Subpart E—Special Rules Pertaining to Tugboats and Towboats

§ 174.140 Specific applicability.

Each tugboat and towboat inspected under subchapter I of this chapter must comply with this subpart.

§ 174.145 Intact stability requirements.

(a) In each condition of loading and operation, each vessel must be shown by design calculations to meet the requirements of paragraphs (b) through (e) of this section.

(b) The area under each righting arm curve must be at least 16.9 foot-degrees (5.15 meter-degrees) up to the smallest of the following angles:

(1) The angle of maximum righting arm.

(2) The downflooding angle.

(3) 40 degrees.

(c) The area under each righting arm curve must be at least 5.6 foot-degrees (1.72 meter-degrees) between the angles of 30 degrees and 40 degrees, or between 30 degrees and the downflooding angle if this angle is less than 40 degrees.

(d) The maximum righting arm shall occur at a heel of at least 25 degrees.

(e) The righting arm curve must be positive to at least 60 degrees.

(f) For the purpose of this section, at each angle of heel, a vessel's righting arm may be calculated considering either—

(1) The vessel is permitted to trim free until the trimming moment is zero; or

(2) The vessel does not trim as it heels.

Subpart F [Reserved]

Subpart G—Special Rules Pertaining to Offshore Supply Vessels

SOURCE: CGD 82–004 and CGD 86–074, 62 FR 49353, Sept. 19, 1997, unless otherwise noted.

§ 174.180 Applicability.

Each offshore supply vessel (OSV), except a liftboat inspected under subchapter L of this chapter, must comply with this subpart.

§ 174.185 Intact stability.

(a) Each OSV must be shown by design calculations to meet, under each condition of loading and operation, the minimal requirements for metacentric height (GM) in § 170.170 of this chapter, and in either § 170.173 of this chapter or paragraphs (b) through (e) of this section.

(b) The area under each righting arm curve must be at least 0.08 meter-radians (15 foot-degrees) up to the smallest of the following angles:

(1) The angle of maximum righting arm;

(2) The downflooding angle; or

(3) 40 degrees.

(c) The downflooding angle must not be less than 20 degrees.

(d) The righting arm curve must be positive to at least 40 degrees.

(e) The freeboard at the stern must be equal to the freeboard calculated to comply with subchapter E of this chapter or to the value taken from Table 174.185, whichever is less.

(f) For paragraphs (b) and (d) of this section, at each angle of heel an OSV's righting arm may be calculated considering either—

(1) The vessel is permitted to trim free until the trimming moment is zero; or

(2) The vessel does not trim as it heels.

(g) For the purpose of paragraphs (b) and (d) of this section, the method of calculating righting arms chosen must be the same for all calculations.

TABLE 174.185.—MINIMAL FREEBOARD AT THE STERN

LBP in meters (feet)	Freeboard at stern in millimeters (inches)
Less than 20 (65)	300 (12)
20 (65) but less than 30 (100)	380 (15)
30 (100) but less than 40 (130)	400 (18)
40 (130) but less than 50 (155)	500 (20)
50 (155) but less than 60 (190)	560 (22)
60 (190) but less than 70 (230)	610 (24)
70 (230) and greater	660 (26)

§ 174.190 Collision bulkhead.

(a) Each OSV must have a collision bulkhead in compliance with