

in addition to any other pre-arrival notice to the Coast Guard required by other regulations and must include:

(i) The name of the vessel's first U.S. port of call;

(ii) The date the vessel is scheduled to arrive;

(iii) The name and telephone number of the owner's local agent; and

(iv) The names of all cargoes listed in Table 4 of this part that are on board the vessel;

(3) Make sure that the following items are available on board the vessel for the use of the Marine Inspector before beginning the examination required by §154.150:

(i) A general arrangement (including the location of firefighting, safety, and lifesaving gear); and

(ii) The cargo manual required by §154.1810.

(c) If the vessel was accepted for U.S. service on the basis of Coast Guard plan review under §154.22(b), the vessel owner must notify Commanding Officer, Marine Safety Center 14 days prior to the vessel's arrival at a U.S. port. This notification must include:

(1) The name of the vessel's first U.S. port of call;

(2) The date the vessel is scheduled to arrive;

(3) The name and telephone number of the owner's local agent; and

(4) The names of all cargoes listed in Table 4 of this part that are on board the vessel.

[CGD 81-052, 50 FR 8734, Mar. 5, 1985; 50 FR 15895, Apr. 23, 1985; CGD 77-069, 52 FR 31630, Aug. 21, 1987; CGD 95-072, 60 FR 50466, Sept. 29, 1995; 60 FR 54106, Oct. 19, 1995; USCG-2013-0671, 78 FR 60155, Sept. 30, 2013]

Subpart C—Design, Construction and Equipment

HULL STRUCTURE

§ 154.170 Outer hull steel plating.

(a) Except as required in paragraph (b) of this section, the outer hull steel plating, including the shell and deck plating must meet the material standards of the American Bureau of Shipping published in "Rules for Building and Classing Steel Vessels" 1981.

(b) Along the length of the cargo area, grades of steel must be as follows:

(1) The deck stringer and sheer strake must be at least Grade E steel or a grade of steel that has equivalent chemical properties, mechanical properties, and heat treatment, and that is specially approved by the Commandant (CG-ENG).

(2) The strake at the turn of the bilge must be Grade D, Grade E, or a grade of steel that has equivalent chemical properties, mechanical properties, and heat treatment, and that is specially approved by the Commandant (CG-ENG).

(3) The outer hull steel of vessels must meet the standards in §154.172 if the hull steel temperature is calculated to be below -5°C (23°F) assuming:

(i) For any waters in the world, the ambient cold conditions of still air at 5°C (41°F) and still sea water at 0°C (32°F);

(ii) For cargo containment systems with secondary barriers, the temperature of the secondary barrier is the design temperature; and

(iii) For cargo containment systems without secondary barriers, the temperature of the cargo tank is the design temperature.

[CGD 74-289, 44 FR 26009, May 3, 1979, as amended by CGD 82-063b, 48 FR 4782, Feb. 3, 1983; CGD 77-069, 52 FR 31630, Aug. 21, 1987]

§ 154.172 Contiguous steel hull structure.

(a) Except as allowed in paragraphs (b) and (c) of this section, plates, forgings, forged and rolled fittings, and rolled and forged bars and shapes used in the construction of the contiguous steel hull structure must meet the thickness and steel grade in Table 1 for the temperatures under §§ 154.174(b) and 154.176(b).

(b) for a minimum temperature, determined under §§ 154.174(b) and 154.176(b), below -25°C (-13°F), the contiguous steel hull structure must meet §54.25-10 for that minimum temperature.

(c) If a steel grade that is not listed in Table 1 has the equivalent chemical properties, mechanical properties, and heat treatment of a steel grade that is listed, the steel grade not listed may be specially approved by the Commandant

§ 154.174

46 CFR Ch. I (10–1–14 Edition)

(CG–ENG), for use in the contiguous hull structure.

TABLE 1—MINIMUM TEMPERATURE, THICKNESS, AND STEEL GRADES IN CONTIGUOUS HULL STRUCTURES

Minimum temperature	Steel thickness	Steel ¹ grade
0 °C (32 °F)	All	Standards of the American Bureau of Shipping published in “Rules for Building and Classing Steel Vessels”, 1981
–10 °C (14 °F) ...	T≤112.5 mm (½ in.) ... 12.5<t≤25.5 mm (1 in.) >25.5 mm (1 in.)	B D E
–25 °C (–13 °F)	t≤112.5 mm (½ in.) >12.5 mm (½ in.)	D E

¹ Steel grade of the American Bureau of Shipping published in “Rules for Building and Classing Steel Vessels”, 1981.

[CGD 74–289, 44 FR 26009, May 3, 1979, as amended by CGD 82–063b, 48 FR 4782, Feb. 3, 1983; CGD 77–069, 52 FR 31630, Aug. 21, 1987]

§ 154.174 Transverse contiguous hull structure.

(a) The transverse contiguous hull structure of a vessel having cargo containment systems without secondary barriers must meet the standards of the American Bureau of Shipping published in “Rules for Building and Classing Steel Vessels”, 1981.

(b) The transverse contiguous hull structure of a vessel having cargo containment systems with secondary barriers must be designed for a temperature that is:

(1) Colder than the calculated temperature of this hull structure when:

(i) The temperature of the secondary barrier is the design temperature, and

(ii) The ambient cold condition under § 154.176(b)(1)(ii) and (iii) are assumed; or

(2) Maintained by the heating system under § 154.178.

[CGD 74–289, 44 FR 26009, May 3, 1979, as amended by CGD 77–069, 52 FR 31630, Aug. 21, 1987]

§ 154.176 Longitudinal contiguous hull structure.

(a) The longitudinal contiguous hull structure of a vessel having cargo containment systems without secondary

barriers must meet the standards of the American Bureau of Shipping published in “Rules for Building and Classing Steel Vessels”, 1981.

(b) The longitudinal contiguous hull structure of a vessel having cargo containment systems with secondary barriers must be designed for a temperature that is:

(1) Colder than the calculated temperature of this hull structure when:

(i) The temperature of the secondary barrier is the design temperature; and

(ii) For any waters in the world except Alaskan waters, the ambient cold condition of:

(A) Five knots air at –18 °C (0 °F); and

(B) Still sea water at 0 °C (32 °F); or

(iii) For Alaskan waters the ambient cold condition of:

(A) Five knots air at –29 °C (–20 °F); and

(B) Still sea water at –2 °C (28 °F); or

(2) Maintained by the heating system under § 154.178, if, without heat, the contiguous hull structure is designed for a temperature that is colder than the calculated temperature of the hull structure assuming the:

(i) Temperature of the secondary barrier is the design temperature; and

(ii) Ambient cold conditions of still air at 5 °C (41 °F) and still sea water at 0 °C (32 °F).

[CGD 74–289, 44 FR 26009, May 3, 1979, as amended by CGD 77–069, 52 FR 31630, Aug. 21, 1987]

§ 154.178 Contiguous hull structure: Heating system.

The heating system for transverse and longitudinal contiguous hull structure must:

(a) Be shown by a heat load calculation to have the heating capacity to meet § 154.174(b)(2) or § 154.176(b)(2);

(b) Have stand-by heating to provide 100% of the required heat load and distribution determined under paragraph (a); and

(c) Meet Parts 52, 53, and 54 of this chapter.

§ 154.180 Contiguous hull structure: Welding procedure.

Welding procedure tests for contiguous hull structure designed for a temperature colder than –18 °C (0 °F) must