SUBCHAPTER E—LOAD LINES

PART 41 [RESERVED]

PART 42—DOMESTIC AND FOREIGN VOYAGES BY SEA

Subpart 42.01—Authority and Purpose

Subpart 42.03—Application

Subpart 42.05—Definition of Terms Used in This Subchapter

Subpart 42.07—Control, Enforcement, and Rights of Appeal

Subpart 42.09—Load Line Assignments and Surveys—General Requirements

Subpart 42.11—Applications for Load Line Assignments, Surveys, and Certificates

Subpart 42.13—General Rules for Determining Load Lines

Subpart 42.15—Conditions of Assignment of Freeboard

Subpart 42.20—Freeboards

Subpart 42.25—Special Requirements for Vessels Assigned Timber Freeboards

Subpart 42.30—Zones, Areas, and Seasonal Periods

Subpart 42.50—Load Line Certificates—Model Forms

AUTHORITY: 46 U.S.C. 5101–5116; Department of Homeland Security Delegation No. 0170.1; section 42.01–5 also issued under the authority of 44 U.S.C. 3507.

Subpart 42.01—Authority and Purpose

§ 42.01–1 Authority for regulations.

The statutory authority to prescribe rules and regulations requiring certain vessels to have and display load line marks indicating the maximum amidship draft to which such vessels may be safely loaded and certification thereof by the assigning authority is in 46 U.S.C. 5101–5116.

[CGD 80–120, 47 FR 5721, Feb. 8, 1982, as amended by CGD 97–057, 62 FR 51043, Sept. 30, 1997]

§ 42.01–5 OMB control numbers assigned pursuant to the Paperwork Reduction Act.

(a) *Purpose.* This section collects and displays the control numbers assigned to information collection and recordkeeping requirements in this subchapter by the Office of Management

and Budget (OMB) pursuant to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*). The Coast Guard intends that this section comply with the requirements of 44 U.S.C. 3507(f) which requires that agencies display a current control number assigned by the Director of the OMB for each approved agency information collection requirement.

(b) *Display.*

46 CFR part or section where identified or described	Current OMB control No.
Part 42	1625–0013
Part 44	1625–0013
Part 45	1625–0013
Part 46	1625–0013

[49 FR 38120, Sept. 27, 1984, as amended by USCG–2004–18884, 69 FR 58345, Sept. 30, 2004]

§ 42.01–10 Purpose of regulations.

(a) The load line marks when placed on a vessel shall indicate the maximum amidships draft to which such vessel can be lawfully submerged, in the various circumstances and seasons applicable to such vessel.

(b) This subchapter sets forth the uniform minimum requirements for load line marks on various categories of vessels. It also sets forth requirements for surveys relating to the assignment of load lines, the issuing of load line certificates by authorized issuing authorities, and the carriage of load line certificates aboard vessels.

(c) The rules and regulations in this subchapter also provide for the enforcement of load line requirements and control over vessels when it is believed such vessels may be in violation of applicable load line requirements.

[CGFR 68–60, 33 FR 10049, July 12, 1968, as amended by CGD 80–120, 47 FR 5721, Feb. 8, 1982]

Subpart 42.03—Application

§ 42.03–5 U.S.-flag vessels subject to the requirements of this subchapter.

(a) *Vessels engaged in foreign voyages or international voyages other than solely Great Lakes voyages.* (1) All U.S. flag vessels which engage in foreign voyages or international voyages by sea (other than solely in Great Lakes voyages) are subject to this part; except the following:

(i) Ships of war;

(ii) New vessels of less than 79 feet in length;

(iii) Existing vessels of less than 150 gross tons;

(iv) Pleasure yachts not engaged in trade; and

(v) Fishing vessels.

(2) As provided in Article 4(4) of the 1966 Convention, in order for existing vessels to take advantage of any reduction in freeboards from those previously assigned, the regulations in Subparts 42.13 to 42.25, inclusive, of this part shall be fully complied with. Except for due cause, such vessels shall not be required to increase their freeboards under the provisions of the 1966 Convention.

(3) All U.S.-flag vessels authorized to engage in foreign or international voyages may also engage in domestic voyages by sea and, as permitted by § 45.9 of this part and Part 47 of this subchapter, in Great Lakes voyages without additional load line marks and/or certificates. Where additional load line marks and certificates are provided to specifically cover ''Special Service, Coastwise'' or ''Great Lakes'' operation, such vessels are subject to the applicable provisions of Parts 44 and 45 of this subchapter.

(b) *Vessels engaged in domestic voyages by sea.* (1) All U.S.-flag vessels which engage in domestic voyages by sea (coastwise and intercoastal voyages) shall be subject to the applicable provisions of this part except the following:

(i) Merchant vessels of less than 150 gross tons.

(ii) Vessels which are mechanically propelled and numbered by a State or the Coast Guard under the Federal Boat Safety Act of 1971 (46 U.S.C. 1451 et seq.) and not required by other laws to be inspected or certified by the U.S. Coast Guard. (This exception includes all mechanically propelled vessels of less than 150 gross tons, and uninspected motor propelled oceanographic vessels of less than 300 gross tons while operating pursuant to 46 U.S.C. 2113.

(iii) Pleasure craft not used or engaged in trade or commerce.

(iv) Barges of less than 150 gross tons.

(v) Vessels engaged exclusively in voyages on waters within the United States or its possessions and which are determined not to be ''coastwise'' or ''Great Lakes'' voyages.

(vi) Ships of war.

(vii) U.S. public vessels other than those vessels of 150 gross tons or over and engaged in commercial activities.

(2) In order for existing vessels to take advantage of any reduction in freeboards from those previously assigned, paragraph (a)(2) of this section applies.

(c) *Vessels engaged solely on Great Lakes voyages.* A U.S. flag vessel 79 feet and more and 150 gross tons or over that engages solely on Great Lakes voyages is subject to the applicable provisions of this part and Part 45 of this subchapter and must comply with the regulations in force on the date the keel is laid or a similar progress in construction is made.

(d) *Special service coastwise voyage.* A U.S. flag vessel 150 gross tons or over that engages in a ''special service coastwise voyage'' is subject to the applicable provisions of this part and Part 44 of this subchapter.

(e) *Hopper dredges engaged in limited service domestic voyages.* Self-propelled hopper dredges over 79 feet (24 meters) in length with working freeboards, on limited service domestic voyages within 20 nautical miles (37 kilometers) from the mouth of a harbor of safe refuge, are subject to the provisions of this subchapter that apply to a Type ''B'' vessel and to the provisions of Subpart E of Part 44 of this chapter.

[CGFR 68–60, 33 FR 10049, July 12, 1968, as amended by CGFR 68–126, 34 FR 9011, June 5, 1969; CGD 73–49R, 38 FR 12289, May 10, 1973; CGD 80–120, 47 FR 5721, Feb. 8, 1982; CGD 86–016, 51 FR 9962, Mar. 24, 1986; CDG 76–080, 54 FR 36976, Sept. 6, 1989; CGD 97–057, 62 FR 51043, Sept. 30, 1997]

§ 42.03–10 Foreign vessels subject to this subchapter.

(a) *General.* All existing foreign merchant vessels of 150 gross tons or over, and new foreign vessels of 79 feet in length or more, loading at or proceeding from any port or place within the jurisdiction of the United States or its possessions for a foreign voyage by sea, or arriving within the jurisdiction of the United States or its possessions from a foreign voyage by sea, in both cases the Great Lakes excepted, are subject to 46 U.S.C. 5101–5116, and the regulations in this part applicable to such service. All foreign merchant vessels of 150 gross tons or over, loading at or proceeding from any port or place within the United States on the Great Lakes of North America, or arriving within the jurisdiction of the United States on the Great Lakes, are subject to 46 U.S.C. 5101–5116 and the regulations in part 45 of this subchapter applicable to such service.

(b) *Canadian vessels.* All vessels of Canadian registry and holding valid certificates issued pursuant to Canadian laws and regulations are assumed to be in compliance with the applicable provisions of 46 U.S.C. 5101–5116, the International Convention on Load Lines, 1966, and the regulations in this subchapter.

(c) *Vessels of countries signatory to or adhering to the 1966 Convention.* The enforcement and control of load line requirements regarding vessels of countries signatory to or adhering to The International Convention on Load Lines, 1966, (the 1966 Convention) are as described in § 42.07–60 in this part, which is in accord with provisions of Article 21 of the 1966 Convention. Such vessels when holding currently valid certificates issued pursuant to the 1966 Convention, or recognized under such Convention, are assumed to be in compliance with the applicable provisions of such Convention. Such vessels are deemed to be in compliance with the load line requirements found to be equally effective as those established in this part and therefore in compliance with the applicable load line provisions of 46 U.S.C. 5101–5116, as amended, and the regulations in this part as authorized by such laws. Vessels engaged in navigation on the Great Lakes are subject to application of seasonal international marks as specified in Part 45 of this subchapter.

(d) *Vessels of countries not signatory to or adhering to the 1966 Convention.* (1) Vessels of countries not signatory to or adhering to the 1966 Convention, when within the jurisdiction of the United States, shall be subject to 46 U.S.C.

5101–5116, and the regulations in this subchapter as authorized by such laws.

(2) Vessels of countries signatory to or adhering only to International Load Line Convention, London, 1930 (the 1930 Convention), and holding valid certificates issued under that Convention, are subject to the applicable law described in paragraph (a) of this section and the regulations prescribed thereunder in this subchapter.

[CGD 80–120, 47 FR 5722, Feb. 8, 1982, as amended by CGD 97–057, 62 FR 51043, Sept. 30, 1997; USCG–1998–4442, 63 FR 52190, Sept. 30, 1998]

§ 42.03–15 The Great Lakes of North America.

(a) The term ''Great Lakes of North America'' means those waters of North America which are defined in § 42.05–40, and in the exception in Article 5(2)(a) of the 1966 Convention.

(b) The expressions in the regulations in this part, such as ''voyages by sea,'' ''proceed to sea,'' ''arrive from the high seas,'' etc., shall be construed as having no application to voyages on the Great Lakes or portions thereof unless specifically provided otherwise in Part 45 of this subchapter.

[CGFR 68–60, 33 FR 10050, July 12, 1968]

§ 42.03–17 Special load line marks for vessels carrying timber deck cargo.

(a) Certain vessels having load line marks not related to carriage of timber deck cargo may be assigned timber load lines if they are in compliance with the applicable requirements governing timber deck cargoes in this subchapter. The timber load lines apply and may be used only when the vessel is carrying timber deck cargo.

(b) A new or existing vessel having timber load lines assigned to it, when carrying timber deck cargo, may be loaded to the vessel's timber load line applicable to the voyage and season.

[CGFR 68–60, 33 FR 10050, July 12, 1968, as amended by CGD 80–120, 47 FR 5722, Feb. 8, 1982]

§ 42.03–20 Equivalents.

(a) Where in this subchapter it is provided that a particular fitting, material, appliance, apparatus, or equipment, or type thereof, shall be fitted or carried in a vessel, or that a particular provision shall be made or arrangement shall be adopted, the assigning authority, with the prior approval of the Commandant, may accept in substitution therefor any other fitting, material, apparatus, or equipment or type thereof, or any other provision or arrangement: *Provided*, That it can be demonstrated by trial thereof or otherwise that the substitution is at least as effective as that required by the regulations in this subchapter.

(b) In any case where it is shown to the satisfaction of the assigning authority and the Commandant that the use of any particular equipment, apparatus, or arrangement not specifically required by law is unreasonable or impracticable, appropriate alternatives may be permitted under such conditions as are consistent with the minimum standards set forth in this subchapter.

[CGFR 68–60, 33 FR 10050, July 12, 1968]

§ 42.03–25 Experimental installations.

(a) Complete information (including plans, necessary instructions and limitations, if any) on proposed experimental installations affecting any fitting, material, appliance, apparatus, arrangement, or otherwise shall be submitted to the assigning authority for evaluation. After acceptance by the assigning authority, the complete information of such installation shall be forwarded to the Commandant for specific approval prior to installation. Complete information shall also be furnished for any associated installation(s) deemed necessary to prevent endangering the vessel during the trial period of proposed experimental installations.

(b) The use of approved experimental installations shall be permitted only when in accordance with instructions and limitations as specifically prescribed for such installations by the Commandant.

[CGFR 68–60, 33 FR 10050, July 12, 1968]

§ 42.03–30 Exemptions for vessels.

(a) For an individual vessel or category of vessels, upon the specific recommendation of the assigning authority, the Commandant may authorize an

exemption from one or more load line requirements. Such recommendation and authorization will depend upon provision of any additional features as deemed necessary by the authorities to ensure the vessel's safety in the services and under the conditions specified in paragraph (b) of this section.

(b) Exemptions from specific load line requirements for vessels meeting requirements of paragraph (a) of this section are authorized, subject to certain conditions, including type of voyage engaged in, as follows:

(1) For vessels engaged on international voyages between the United States and near neighboring ports of its possessions or of foreign countries. The exemptions may be permitted because the requirements are deemed to be unreasonable or impracticable due to the sheltered nature of the waters on which the voyages occur or other conditions. These exemptions shall be valid only so long as such a vessel shall remain engaged on specific designated voyages. If the voyage involves a foreign country or countries, the United States will require an exemption agreement with such country or countries prior to the issuance of the appropriate load line certificate.

(2) For vessels engaged on international voyages which embody features of a novel kind, and where nonexemption may seriously impede research, development, and incorporation of novel features into vessels. If the voyage or voyages intended involve a foreign country or countries, then the United States will require an exemption agreement with such country or countries prior to the issuance of a Load Line Exemption Certificate. If the Commandant grants an exemption pursuant to this paragraph (b)(2) to a U.S. flag vessel that operates on the Great Lakes of North America, he may notify the Chairman of the Board of Steamship Inspection of Canada of the nature of the exemption, but no special exemption certificate is issued.

(3) For a vessel not normally engaged on international voyages but which is required to undertake a single international voyage under exceptional circumstances.

(4) For self-propelled hopper dredges engaged on international voyages or on limited service domestic voyages by sea. These vessels may be exempt from applicable hatch cover requirements of §42.15–25 of this part by showing they meet the requirements in §174.310 of this chapter. When a Load Line Exemption Certificate is issued for this exemption, it must have an endorsement that only seawater is allowed in the vessel's hoppers.

(c) A vessel given one or more exemptions from load line requirements under the provisions of paragraph (b)(1) of this section will be issued the appropriate load line certificate, using Form A1, A2, or A3. In each case the exemptions shall be specified on the load line certificate together with the Convention authority which authorizes such exemptions.

(d) A vessel given one or more exemptions under the provisions of paragraph (b)(2) or (b)(3) of this section will be issued a Load Line Exemption Certificate, using Form E1. This certificate shall be in lieu of a regular load line certificate, and the vessel shall be considered as in compliance with applicable load line requirements.

(e) The Commandant may exempt from any of the requirements of this part a vessel that engages on a domestic voyage by sea or a voyage solely on the Great Lakes and embodies features of a novel kind, if the novel features and any additional safety measures required are described on the face of the issued certificate.

(f) A vessel that is not usually engaged on domestic voyages by sea or on voyages on the Great Lakes but that, in exceptional circumstances, is required to undertake a single such voyage between two specific ports is—

(1) Subject to 46 U.S.C. 5101–5116 and the applicable regulations of this subchapter; and

(2) Issued a single voyage load line authorization by the Commandant that states the conditions under which the voyage may be made and any additional safety measures required for a single voyage.

[CGFR 68–126, 34 FR 9011, June 5, 1969, as amended by CGD 73–49R, 38 FR 12289, May 10, 1973; CGD 76–080, 54 FR 36976, Sept. 6, 1989; USCG–1998–4442, 63 FR 52190, Sept. 30, 1998]

§ 42.03–35 U.S.-flag vessels and Canadian vessels navigating on sheltered waters of Puget Sound and contiguous west coast waters of United States and Canada.

(a) In a Treaty between the United States and Canada proclaimed on August 11, 1934, the respective Governments were satisfied of the sheltered nature of certain waters of the west coast of North America. It was agreed to exempt vessels of the United States and Canadian vessels from load line requirements when such vessels engage on international voyages originating on, wholly confined to, and terminating on such waters. In Article I of this Treaty these waters are described as follows: ''* * * the waters of Puget Sound, the waters lying between Vancouver Island and the mainland, and east of a line from a point 1 nautical mile west of the city limits of Port Angeles in the State of Washington to Race Rocks on Vancouver Island, and of a line from Hope Island, British Columbia, to Cape Calvert, Calvert Island, British Columbia, the waters east of a line from Cape Calvert to Duke Point on Duke Island, and the waters north of Duke Island and east of Prince of Wales Island, Baranof Island, and Chicagof Island, the waters of Peril, Neva, and Olga Straits to Sitka, and the waters east of a line from Port Althorp of Chicagof Island to Cape Spencer, Alaska, are sheltered waters * * *.''

(b) U.S.-flag vessels and Canadian vessels navigating on the treaty waters on a voyage as described in paragraph (a) of this section are by virtue of this Treaty of August 11, 1934, not subject to load line requirements in 46 U.S.C. 5101–5116, the 1966 Convention, and the regulations in this subchapter. Vessels navigating these sheltered waters and passing outside their boundary on any voyage cannot claim the benefits of this Treaty and shall be in compliance with the applicable load line requirements in 46 U.S.C. 5101–5116, the 1966 Convention, and the regulations in this subchapter.

(c) Since subdivision requirements apply to all passenger vessels subject to the 1960 International Convention on Safety of Life at Sea, those passenger vessels navigating on the waters described in paragraph (a) of this section shall be in compliance with such 1960 Convention requirements and the regulations in part 46 of this subchapter. The Coast Guard issues to such a vessel a stability letter. The assigning authority is authorized to issue to such a passenger vessel an appropriate load line certificate, modified to meet the conditions governing her service assignment, and marking.

[CGFR 68–60, 33 FR 10051, July 12, 1968, as amended by CGFR 68–126, 34 FR 9011, June 5, 1969; USCG–1998–4442, 63 FR 52190, Sept. 30, 1998]

Subpart 42.05—Definition of Terms Used in This Subchapter

§ 42.05–1 Approved.

This term means approved by the Commandant, U.S. Coast Guard, unless otherwise stated.

[CGFR 68–60, 33 FR 10051, July 12, 1968]

§ 42.05–10 Assigning authority.

This term means the ''American Bureau of Shipping'' or such other recognized classification society which the Commandant may approve as the load line assigning and issuing authority for a vessel, as provided in sections 3 of the load line acts.

[CGFR 68–60, 33 FR 10051, July 12, 1968]

§ 42.05–20 Commandant.

This term means the Commandant, U.S. Coast Guard, Washington, DC 20593–0001.

[CGFR 68–60, 33 FR 10051, July 12, 1968, as amended by CGD 88–070, 53 FR 34534, Sept. 7, 1988]

§ 42.05–25 Coast Guard District Commander or District Commander.

These terms mean an officer of the Coast Guard designated as such by the Commandant to command all Coast Guard activities within his district. This includes enforcement of load line requirements as described in this subchapter.

[CGFR 68–60, 33 FR 10051, July 12, 1968]

§ 42.05–27 Credential.

As used in this subchapter, *credential* means any or all of the following:

(a) Merchant mariner's document.
(b) Merchant mariner's license.
(c) STCW endorsement.
(d) Certificate of registry.
(e) Merchant mariner credential.

[USCG 2006–24371, 74 FR 11265, Mar. 16, 2009]

§ 42.05–30 Existing vessel.

(a) As used in this part 42, for a vessel engaged on international voyages or on domestic voyages by sea, the term *existing vessel* means a vessel which is not a new vessel. With few exceptions an *existing vessel* is a vessel the keel of which was laid, or which was at a similar stage of construction, prior to July 21, 1968. (See § 42.05–50 for the definition of a new vessel.)

(b)–(c) [Reserved]

(d) As used in part 44 of this subchapter, for a vessel marked with load lines for special service on a coastwise or interisland voyage, the term *existing vessel* means one whose keel was laid prior to September 28, 1937. (See § 44.01–20 of this subchapter.)

(e) As used in part 45 of this subchapter, *existing vessel* in all regulations pertaining to a vessel engaged solely on Great Lakes voyages before April 14, 1973, means a vessel whose keel was laid before August 27, 1936. The regulations pertaining to these vessels that are in effect after April 14, 1973, do not use the term *existing vessel*.

(f) As used in part 46 of this subchapter, for a passenger vessel marked with subdivision load lines, the term *existing vessel* means a vessel whose keel was laid or was converted to such service prior to May 26, 1965. (See § 46.05–30 of this subchapter.)

[CGFR 68–60, 33 FR 10051, July 12, 1968, as amended by CGD 73–49R, 38 FR 12290, May 10, 1973; CGD 80–120, 47 FR 5722, Feb. 8, 1982]

§ 42.05–40 Great Lakes.

(a) This term means the Great Lakes of North America.

(b) As used in this part, the term *solely navigating the Great Lakes* includes any special service coastwise navigation performed by the vessel.

(c) In concurrence with related Canadian regulations, the waters of the St. Lawrence River west of a rhumb line drawn from Cap de Rosiers to West Point, Anticosti Island, and west of a line along 63° W. longitude from Anticosti Island to the north shore of the St. Lawrence River shall be considered as a part of the Great Lakes. In addition, the Victoria Bridge, Montreal, Canada, is the dividing line between fresh water and salt water in the St. Lawrence River.

[CGFR 68–60, 33 FR 10051, July 12, 1968, as amended by CGD 73–49R, 38 FR 12290, May 10, 1973]

§ 42.05–45 International voyage.

(a) The term *international voyage* as used in this part shall have the same meaning as the term *international voyage* in Article 2(4) of the 1966 Convention. Except for vessels operating solely on the waters indicated in Article 5(2) of the 1966 Convention, an *international voyage* means a sea voyage from any country to a port outside such country, or conversely. For this purpose, every territory for the international relations of which any specific Contracting Government is responsible or for which the United Nations are the administering authority is regarded as a separate country.

(b) The 1966 Convention does not apply to vessels solely navigating the Great Lakes. Accordingly, such vessels shall not be considered as being on an *international voyage* for the purpose of this subchapter.

(c) For the purpose of administration of load line requirements in this subchapter, the Commonwealth of Puerto Rico, the Territory of Guam, the Virgin Islands, and all possessions and lands held by the United States under a protectorate or mandate shall each be considered to be a *territory* of the United States.

[CGFR 68–60, 33 FR 10051, July 12, 1968]

§ 42.05–47 Marine inspector or inspector.

These terms mean any person from the civilian or military branch of the Coast Guard assigned under the superintendence and direction of an Officer in Charge, Marine Inspection, or any other person as may be designated for the performance of duties with respect to the inspection, enforcement, and administration of title 52, Revised Statutes, and acts amendatory thereof or

supplemental thereto, and rules and regulations thereunder.

[CGFR 68–60, 33 FR 10051, July 12, 1968]

§ 42.05–50 New vessel.

(a) As used in this part 42, for a vessel engaged on international voyages or on domestic voyages by sea, the term *new vessel* means a vessel, the keel of which is laid, or which is at a similar stage of construction, on or after July 21, 1968. (See § 42.05–30 for definition of an existing vessel.)

(1) This definition applies to all vessels of countries signatory to or acceding to the 1966 Convention prior to April 21, 1968, and to vessels of countries not adhering to an applicable Convention as indicated in Article 16(4) of the 1966 Convention.

(2) For countries which accede to the 1966 Convention after April 21, 1968, a *new vessel* (foreign) shall be one whose keel is constructively laid 3 months or more after such date.

(b)–(c) [Reserved]

(d) As used in part 44 of this subchapter, for a vessel marked with load lines for special service on a coastwise or interisland voyage, the term *new vessel* means one whose keel is laid on or after September 28, 1937. (See § 44.01–20 of this subchapter.)

(e) As used in part 45 of this subchapter, for a vessel engaged solely on Great Lakes voyages, the term *new vessel* means one whose keel is laid on or after August 27, 1936. (See § 45.01–10 of this subchapter.)

(f) As used in part 46 of this subchapter, for a passenger vessel marked with subdivision load lines, the term *new vessel* means a vessel whose keel is laid or is converted to such service on or after May 26, 1965. (See § 46.05–25 of this subchapter.)

[CGFR 68–60, 33 FR 10051, July 12, 1968 as amended by CGD 80–120, 47 FR 5722, Feb. 8, 1982]

§ 42.05–55 Officer in Charge, Marine Inspection.

This term means any person from the civilian or military branch of the Coast Guard designated as such by the Commandant and who, under the superintendence and direction of the Coast Guard District Commander, is in charge of a marine inspection zone, and may supervise or perform the duties of a marine inspector.

[CGFR 68–60, 33 FR 10052, July 12, 1968]

§ 42.05–60 Recognized classification society.

The term *recognized classification society* means the American Bureau of Shipping or other classification society recognized by the Commandant, as provided in 46 U.S.C. 5107, and who also may be approved as a load line assigning and issuing authority.

[CGFR 68–60, 33 FR 10052, July 12, 1968, as amended by USCG–1998–4442, 63 FR 52190, Sept. 30, 1998]

§ 42.05–63 Ship(s) and vessel(s).

The terms *ship*(*s*) and *vessel*(*s*) are interchangeable or synonymous words, and include every description of watercraft, other than a seaplane on the water, used or capable of being used as a means of transportation on water.

[CGFR 68–126, 34 FR 9011, June 5, 1969]

§ 42.05–65 Surveyor.

The term *surveyor* means any person designated by the American Bureau of Shipping or other classification society recognized by the Commandant as the person who actually examines the vessel and/or materials associated with such examination, and who ascertains such vessel complies with applicable load line requirements.

[CGFR 68–60, 33 FR 10052, July 12, 1968]

Subpart 42.07—Control, Enforcement, and Rights of Appeal

§ 42.07–1 Load lines required.

(a) The vessels listed in §§ 42.03–5 and 42.03–10 as subject to the applicable requirements in this subchapter shall have load lines accurately marked amidships, port and starboard, as provided in this part 42 or the 1966 Convention, unless otherwise stated. Those vessels issued load line exemption certificates may not be required to have load line marks (see § 42.03–30).

(b) For vessels marked with international load lines and navigating the

Great Lakes, such vessels are also subject to requirements in part 45 of this subchapter while on the Great Lakes. See § 45.9 of this subchapter for load line marks used by such vessels.

(c) For Great Lakes vessels operating solely on Great Lakes voyages, the requirements for the applicable load line marks are in part 45 of this subchapter. Great Lakes vessels when making other international or unlimited coastwise voyages shall comply with the applicable requirements in parts 42, 44, and 45 of this subchapter.

(d) For coastwise steam colliers, barges, and self-propelled barges in special services, the requirements for the applicable load line marks are in part 44 of this subchapter. These requirements also include certain regulations governing such vessels when they additionally engage in Great Lakes voyages, international voyages or unlimited coastwise voyages. Load line requirements in this part 42 also apply to such vessels when engaged on international or unlimited coastwise voyages.

(e) Existing U.S.-flag vessels, as defined in § 42.05–30(a) of this chapter, engaged in international or coastwise voyages, may retain the load line assigned under previous regulations, provided:

(1) The vessel has not been assigned a reduced freeboard under the regulations in this part 42, and

(2) The form of the load line certificate issued to and carried on board the vessel conforms to the requirements of subpart 42.50 of this part or § 44.05–35 or § 46.10–30 of this chapter.

(f) This part applies to foreign vessels of countries—

(1) Signatory to or adhering to the 1966 Convention;

(2) Adhering to the 1930 Convention and not acceding to the 1966 Convention, or;

(3) Not adhering to either the 1930 Convention or the 1966 Convention but subject to the load line acts.

[CGFR 68–60, 33 FR 10052, July 12, 1968, as amended by CGFR 68–126, 34 FR 9011, June 5, 1969; CGD 73–49R, 38 FR 12290, May 10, 1973; CGD 80–120, 47 FR 5722, Feb. 8, 1982]

§ 42.07–5 Marks placed on vessel to indicate load lines.

(a) Load line marks to indicate the maximum amidship's draft to which a vessel can be lawfully submerged, in the various circumstances and seasons, shall be permanently marked on each side of the vessel in the form, manner, and location as required by this subchapter.

(b) The load line marks placed on a vessel shall be attested to by a valid load line certificate as required by § 42.07–45(b). The issuing authority shall not deliver any required load line certificate to the vessel until after its surveyor has ascertained that the vessel meets the applicable survey requirements and the correct placement of the marks on the vessel's sides has been confirmed.

(c) The requirements for load line marks apply to all new and existing vessels as specified in §§ 42.03–5 and 42.03–10, except when a vessel has been issued a load line exemption certificate in lieu of a load line certificate.

[CGFR 68–60, 33 FR 10052, July 12, 1968, as amended by CGFR 68–126, 34 FR 9012, June 5, 1969]

§ 42.07–10 Submergence of load line marks.

(a) Except as provided otherwise in this section, vessels of the types described in paragraphs (a)(1) through (a)(3) of this section shall not be so loaded as to submerge at any time when departing for a voyage by sea, or on the Great Lakes, or during the voyage, or on arrival, the applicable load lines marked on the sides of the vessel for the season of the year and the zone or area in which the vessel may be operating.

(1) Merchant vessels of 150 gross tons or over, as described in § 42.03–5 or § 42.03–10, and on voyages subject to 46 U.S.C. 5101–5116.

(2) All new vessels of 79 feet or over in length on voyages subject to the 1966 Convention.

(3) All vessels of 150 gross tons or over, other than merchant vessels covered by paragraph (a)(1) of this section, on voyages subject to the 1966 Convention.

(b) When loading a vessel in a favorable zone for a voyage on which the

vessel will enter a less favorable zone, such allowances must be made that the vessel when crossing into the less favorable zone, will conform to the regulations and freeboard for the less favorable zone.

(c) When a vessel is in fresh water of unit density, the appropriate load line may be submerged by the amount of the fresh water allowance shown on the applicable load line certificate. Where the density is other than unity, an allowance shall be made proportional to the difference between 1.025 and the actual density. This paragraph does not apply to vessels when navigating the Great Lakes.

(d) When a vessel departs from a port situated on a river or inland waters, deeper loading shall be permitted corresponding to the weight of fuel and all other materials required for consumption between the port of departure and the sea. This paragraph does not apply to vessels when navigating the Great Lakes.

[CGFR 68–60, 33 FR 10052, July 12, 1968, as amended by CGFR 68–126, 34 FR 9012, June 5, 1969; USCG–1998–4442, 63 FR 52190, Sept. 30, 1998]

§ 42.07–15 Zones and seasonal areas.

(a) A vessel subject to 46 U.S.C. 5101–5116 or the 1966 Convention shall comply, as applicable, with the requirements regarding the zones and seasonal areas described in subpart 42.30.

(b) A port located on the boundary line between two zones or areas shall be regarded as within the zone or seasonal area from or into which the vessel arrives or departs.

[CGFR 68–60, 33 FR 10053, July 12, 1968, as amended by USCG–1998–4442, 63 FR 52190, Sept. 30, 1998]

§ 42.07–20 Logbook entries.

(a) As described in §3.13–35 of Subchapter A (Procedures Applicable to the Public) of this chapter, official logbooks (Form CG–706–C), are furnished free to certain vessels, and after they have served their purpose they are filed with the applicable Officer in Charge, Marine Inspection.

(b) The master shall be responsible for having entered in the vessel's ''official logbook'' if carried, otherwise in his own log considered as its official logbook, the data required by section 6 of the load line acts. These logbooks entries shall be made before a vessel departs from her loading port or place and consist of:

(1) A statement of the load line marks applicable to the voyage; and,

(2) A statement of the position of the load line marks, port and starboard, at the time of departing from a port or place; i.e., the distance in inches of the water surface above or below the applicable load line; and,

(3) The actual drafts of the vessel, forward and aft, as nearly as the same can be ascertained, at the time of departing from a port or place.

(c) Where the master uses his own log, it shall be kept by the master or owner for 1 year after the actions noted therein have been completed and upon request shall be furnished to any load line enforcement officer.

[CGFR 68–60, 33 FR 10053, July 12, 1968]

§ 42.07–25 Approval of the Commandant.

(a) Where the requirements in this subchapter state that the approval of the Commandant is necessary, the owner or his agent shall furnish all information necessary, including background material, and/or final plans, calculations, and conclusions reached, as will enable the Commandant to obtain a comprehensive understanding of and reach a decision relative to the question or problem at issue prior to proceeding with the work. All information, plans and calculations submitted will remain with the Commandant as a part of the record on the vessel.

(b) If the owner or his agent desires to have information, plans, and calculations returned with Commandant's actions noted thereon, or if distribution of such information is necessary or required by regulations in this subchapter to owners, masters of vessels, etc., then the owner or his agent shall furnish multiple copies of the information as required.

[CGFR 68–60, 33 FR 10053, July 12, 1968]

§ 42.07–30 Approval of the assigning authority.

(a) Where the requirements in this subchapter state the approval of an assigning authority is required, the owner or his agent shall furnish the required information, including plans, etc., as required by and which will enable the assigning authority to obtain a comprehensive understanding of the matter and to reach pertinent decisions prior to proceeding with the work. When requested the assigning authority shall furnish the Coast Guard all information, etc., on any question at issue and decisions reached.

(b) All information required under this subchapter by an assigning authority with respect to a specific vessel shall be retained until 5 years after termination of certification by such authority.

[CGFR 68–60, 33 FR 10053, July 12, 1968]

§ 42.07–35 American Bureau of Shipping as an assigning authority.

(a) The American Bureau of Shipping, with its home office at ABS Plaza, 16855 Northchase Drive, Houston, TX 77060, is hereby appointed as the prime assigning and issuing authority under the provisions of Articles 13 and 16(3) of the 1966 Convention and as directed by 46 U.S.C. 5107. In this capacity the American Bureau of Shipping is empowered to assign load lines, to perform surveys required for load line assignments, and to determine that the position of and the manner of marking vessels has been done in accordance with applicable requirements.

(b) On behalf of the United States of America, the American Bureau of Shipping is authorized to issue or reissue, under its own seal and signature of its officials, the appropriate load line certificates or International Load Line Exemption Certificate as described in subpart 42.50 of this part or in parts 44 to 46, inclusive, of this subchapter. Except for the International Load Line Exemption Certificate, the required load line certificate issued to a specific vessel shall certify to the correctness of the load line marks assigned and marked on the vessel and compliance with authorized conditions, restrictions, and/or exemptions, if any. The International Load Line Exemption Certificate when issued to a vessel shall certify as to the compliance with the information applicable to the vessel.

(c) The designation and delegation to the American Bureau of Shipping as an assigning and issuing authority shall be in effect indefinitely unless for due cause it shall be terminated by proper authority and notice of cancellation is published in the FEDERAL REGISTER.

(d) The American Bureau of Shipping is authorized to revalidate from time to time by endorsement a load line certificate or an International Load Line Exemption Certificate.

(e) Before revalidating any certificate by endorsement, the American Bureau of Shipping shall verify that the required load line marks assigned are marked on the vessel and the vessel is in compliance with authorized conditions, restrictions, and/or exemptions, if any.

(f) The American Bureau of Shipping shall issue all load line certificates in duplicate; one copy shall be delivered to the owner or master of the vessel, and one copy (together with a summary of data used to determine the assigned load lines) shall be forwarded to the Commandant.

(g) The American Bureau of Shipping shall prepare a load line survey report on each new vessel or existing vessel when brought into complete compliance with this part prior to issuing the required load line certificate described in subpart 42.50 of this part. At the time the certificate is delivered, one copy of this report shall be delivered to the master of the vessel, and one copy shall be forwarded to the Commandant. When a load line survey report is superseded or revised, one copy shall be delivered to the master of the vessel, and one copy shall be forwarded to the Commandant.

(h) The load line survey report or stability information furnished to a specific vessel shall include a statement of

the locations of all watertight subdivision bulkheads, including steps or recesses therein, which may be involved in the vessel's load line assignment.

[CGFR 68–60, 33 FR 10053, July 12, 1968, as amended by CGFR 68–126, 34 FR 9012, June 5, 1969; CGD 80–143, 47 FR 25149, June 10, 1982; CGD 96–041, 61 FR 50727, Sept. 27, 1996; USCG–1998–4442, 63 FR 52190, Sept. 30, 1998; USCG–2000–7790, 65 FR 58459, Sept. 29, 2000]

§ 42.07–40 Recognized classification society as an assigning authority.

(a) On behalf of the United States of America, under the provisions of Articles 13 and 16(3) and as provided in 46 U.S.C. 5107, the Commandant, at the request of a shipowner, may appoint any other recognized classification society, which he may approve, as the assigning and issuing authority who shall perform the same functions and duties as indicated in § 42.07–35 for the American Bureau of Shipping.

(b) The appointment of a recognized classification society as the assigning and issuing authority will be limited to vessels specifically designated by the Commandant.

[CGFR 68–60, 33 FR 10053, July 12, 1968, as amended by USCG–1998–4442, 63 FR 52190, Sept. 30, 1998]

§ 42.07–43 Change in assigning authority.

(a) If the owner desires a change in assigning and issuing authority for a vessel, a special request shall be made in writing to the Commandant at least 90 days prior to the expiration date of the present certificate or the annual endorsement thereon.

(b) A change in the assigning authority does not presume any change in assigned load lines.

[CGFR 68–60, 33 FR 10053, July 12, 1968]

§ 42.07–45 Load line certificates.

(a) The load line certificates for which the Government of the United States of America assumes full responsibility may be issued by the Commandant, the American Bureau of Shipping, or a recognized classification society when appointed as an authorized assigning and issuing authority for specifically designated vessels.

(b) The load line certificate shall certify to the correctness of the load line marks assigned to the vessel and that the vessel is in compliance with applicable requirements. A certificate issued under this subchapter also shall describe the applicable load line marks, conditions, restrictions, and/or exemptions, if any, the vessel shall observe, according to the season of the year and the zone or area in which the vessel may operate. The load line exemption certificate issued under § 42.03–30 shall certify the special conditions the vessel shall observe.

(c) A load line assignment and certificate issued to any vessel under the authority of the regulations in this subchapter (or under the authority of any Government adhering to the 1966 Convention, under the provisions of Article 19(5) of the 1966 Convention) shall cease to be valid upon the transfer of such vessel to the flag of another Government.

(d) Each loadline certificate is issued for the following length of time:

(1) An international and coastwise certificate is issued for 5 years and may be extended by the Commandant up to 150 days from the date of the—

(i) Survey that is endorsed on the certificate by the surveyor authorized by the Coast Guard; or

(ii) Last day of the 5-year period.

(2) A Great Lakes certificate is issued for 5 years and may be extended by the Commander, Ninth Coast Guard District, up to 365 days from date of the—

(i) Survey that is endorsed on the certificate by the surveyor authorized by the Coast Guard; or

(ii) Last day of the 5-year period.

(e) The form of certificate certifying to the correctness of the load line marks, assigned under the regulations in this part, may be in the form of temporary or provisional certificate, signed by the authorized surveyor pending early issuance of appropriate certificate as shown in subpart 42.50 of this part as follows:

(1) International Load Line Certificate, 1966, issued to U.S. vessels engaged in foreign voyages, or engaged in coastwise or intercoastal voyages (provided such vessels qualify to engage in foreign voyages without restriction), as follows:

(i) Form *A1,* For general use.

(ii) Form *A2,* For sailing vessels.

(iii) Form *A3*, For general use, combined with timber deck cargo.

(2) Certificate issued to foreign vessels belonging to countries that have not ratified or acceded to the 1966 Convention as follows:

(i) Form *B*, For general use.

(3) Coastwise load line certificate (other than for special service as provided for by part 44 of this subchapter) issued to U.S. vessels engaged solely in coastwise and/or intercoastal voyages (which may be subject to restrictions as to manning, routes, seasons, waters of operations, etc., as shown on the face of the certificate), as follows:

(i) Form *C1*, For general use.

(ii) Form *C2*, For sailing ships.

(iii) Form *C3*, For general use, combined with timber deck cargo.

(f) The form of certificate certifying to the correctness of exemptions granted under the regulations in this part shall be as shown in subpart 42.50 of this part as follows:

(1) International load line exemption certificate issued under special conditions to U.S.-flag vessels engaged in foreign voyages, as follows:

(i) Form *E1*, For general international use.

(ii) Where this certificate is intended to expire after a single voyage, this information shall be noted on the face of the certificate.

(2) International load line certificate Form A1, A2, or A3 issued under special conditions to U.S.-flag vessels on international voyages between the United States and near neighboring ports of its possessions or of foreign countries. Exemptions, if any, shall be specified on the certificate.

(g) The issuing authority shall provide the printed forms it may use under the regulations in this subchapter. These forms shall be approved by the Commandant before final printing. The international load line certificate and exemption certificate forms shall exactly reproduce the arrangement of the printed part of the model Forms *A1*, *A2*, *A3*, and *E1* indicated in subpart 42.50 of this part for all official copies and any certified copies issued.

(h) Where a vessel qualifies for and is issued a Form E1 International Load Line Exemption Certificate for foreign voyages but is also or solely engaged in coastwise or intercoastal voyages by sea, this certificate shall be considered equivalent to a valid coastwise load line certificate. In such case the vessel shall be deemed in full compliance with 46 U.S.C. 5101–5116 and the regulations in this part promulgated thereunder.

[CGFR 68–60, 33 FR 10054, July 12, 1968, as amended by CGFR 68–126, 34 FR 9012, June 5, 1969; CGD 73–49R, 38 FR 12290, May 10, 1973; CGD–74; 153, 39 FR 25324, July 10, 1974; CGD 80–120, 47 FR 5722, Feb. 8, 1982; CGD 96–006, 61 FR 35964, July 9, 1996; USCG–1998–4442, 63 FR 52190, Sept. 30, 1998]

§ 42.07–50 Penalties for violations.

(a) The penalties for violation of various provisions of the load line acts or the regulations established thereunder are set forth in 46 U.S.C. 5116. The Secretary of Transportation by 49 CFR 1.46(b) has transferred to the Commandant authority to assess, collect, remit or litigate any monetary penalty imposed under these laws.

(b) The master and/or owner of a vessel that is operated, navigated, or used in violation of the provisions of the load line acts, or the regulations in this subchapter will be subject to the penalties as set forth in law, and the vessel shall also be liable therefor. Depending upon the gravity of the violations, the Coast Guard may do any one or more of the following:

(1) Detain a vessel if deemed to be overloaded in violation of title 46 U.S.C. 5112, in accordance with 46 U.S.C. 5113 and have the vessel surveyed by three disinterested surveyors.

(2) Assess and collect applicable monetary penalties for certain violations as provided in 46 U.S.C. 5112 and 5116.

(3) Initiate a criminal prosecution for certain violations when required by 46 U.S.C. 5112 or 5116.

(4) Initiate an action of libel against the vessel involved if there is a failure to pay monetary penalties assessed.

(5) Initiate a suspension or revocation proceeding, in addition to the foregoing actions described in this paragraph against any officer or seaman holding a valid Coast Guard credential and who may violate any provision of the load line acts, the 1966 Convention, or the regulations in this subchapter,

under the provisions of 46 U.S.C. Chapter 77, and the regulations in 46 CFR part 5.

(c) In determining offenses, 46 U.S.C. 5116 provides that 'Each day of a continuing violation is a separate violation' and

(d) The procedures governing the assessment, collection, remission and litigation of any monetary penalty proposed under 46 U.S.C. 5116 for a violation of either load line law or the applicable regulations in this subchapter, as well as the appeal procedures to be allowed, are in 33 CFR subpart 1.07.

[CGFR 68–60, 33 FR 10054, July 12, 1968, as amended by CGFR 68–126, 34 FR 9012, June 5, 1969; CGD 80–120, 47 FR 5722, Feb. 8, 1982; CGD 97–057, 62 FR 51043, Sept. 30, 1997; USCG 2006–24371, 74 FR 11265, Mar. 16, 2009]

§ 42.07–55 Cancellation of load line certificates or exemption certificates.

(a) Since vessels described in § 42.03–5 or § 42.03–10 when found qualified are issued appropriate load line certificates or load line exemption certificates, under U.S. responsibility as indicated in § 42.07–45 such certificates may be canceled by proper U.S. authority for due cause, including one or more of the causes listed in paragraph (b) of this section. Such action may occur prior to the expiration date on the certificate and normal certificate surrender. The cancellation of such certificate means that the correctness of load line marks and compliance with conditions of assignment for the named vessel no longer are recognized by the United States and that the existing assigned load line marks are voided.

(b) Certain causes for automatic cancellation of certificates are:

(1) The conditions of assignment have not been maintained as required by this subchapter.

(2) Material alterations have taken place in the hull or superstructure of the vessel, which will necessitate the assignment of an increased freeboard.

(3) The fittings and appliances have not been maintained in an effective condition for the protection of openings, guardrails, freeing ports, and means of access to crew's quarters.

(4) The structural strength of the vessel is lowered to such an extent that the vessel is unsafe.

(5) The load line certificate or International Load Line Exemption Certificate is not endorsed to show the vessel has been surveyed annually or periodically by the issuing authority as required by this part or the 1966 Convention.

(6) Issuance of a new load line certificate for the same vessel.

(7) Surrender of a certificate for cancellation when required.

(8) The owner, master, or agent of the vessel has furnished false or fraudulent information in or with the application for a certificate.

[CGFR 68–60, 33 FR 10054, July 12, 1968, as amended by CGFR 68–126, 34 FR 9012, June 5, 1969]

§ 42.07–60 Control.

(a) The District Director of Customs or the Coast Guard District Commander may detain a vessel for survey if there is reason to believe that the vessel is proceeding on her journey in excess of the draft allowed by the regulations in this subchapter as indicated by the vessel's load line certificate, or otherwise. The Coast Guard District Commander may detain a vessel if it is so loaded as to be manifestly unsafe to proceed to sea.

(b) If the District Director of Customs orders a vessel detained, he shall immediately inform the Coast Guard District Commander thereof, who shall thereupon advise the District Director of Customs whether or not he deems that the vessel may proceed to sea with safety. If the Coast Guard District Commander orders a vessel detained, such officer will furnish the District Director of Customs immediate notification of such detention. The clearance shall be refused to any vessel which shall have been ordered detained, which shall be in effect until it is shown that the vessel is not in violation of the applicable law and the regulations in this subchapter.

(1) Where a vessel is detained for noncompliance with ''material alteration'' and ''effective maintenance'' requirements of paragraph (f)(1) of this section, the detention shall only be exercised insofar as may be necessary to

ensure that the vessel can proceed to sea without danger to passengers or crew.

(c) The detention of a vessel will be by written order of either the Coast Guard District Commander or the District Director of Customs, depending on who orders the detention. The Coast Guard District Commander will immediately arrange for a survey in the manner prescribed by 46 U.S.C. 5113. Unless the owner or agent waives in writing and stipulates to accept the Coast Guard's survey, the Coast Guard District Commander shall appoint three disinterested surveyors and, where practicable, one of them shall be from the Surveying Staff of the American Bureau of Shipping. Such surveyors shall conduct a survey to ascertain whether or not the vessel is loaded in violation of the applicable provisions in the load line acts, and the regulations in this subchapter. If the survey confirms the allegation that the vessel is in violation of either law or the applicable regulations in this subchapter, ''the owner and agent shall bear the costs of the survey in addition to any penalty or fine imposed'', as provided in these laws.

(d) Whenever a vessel is detained, the master or owner may, within 5 days, appeal to the Commandant who may, if he desires, order a further survey, and may affirm, set aside, or modify the order of the detaining officer.

(e) Where a foreign vessel is detained or intervention action of any other kind is taken against a foreign vessel, the officer carrying out the action shall immediately inform in writing the Consul or the diplomatic representative of the State whose flag the vessel is flying, of the decision involved together with all pertinent circumstances under which intervention was deemed necessary.

(f) Under 46 U.S.C. 5109 a vessel of a foreign country which has ratified the 1966 Convention, or which holds a recognized and valid 1930 Convention certificate, or which holds a valid Great Lakes Certificate, shall be exempt from the provisions of the regulations in this subchapter insofar as the marking of the load lines and the certificating thereof are concerned, so long as such country similarly recognizes the load lines established by this subchapter for the purpose of a voyage by sea subject to the proviso in paragraph (f)(1) of this section or the alternative proviso in paragraph (f)(2) of this section.

(1) If the foreign vessel is marked with load lines and has on board a valid International or Great Lakes Load Line Certificate certifying to the correctness of the marks, the control provisions in this part which are in accord with Article 21 of the 1966 Convention shall be observed. In this connection, the vessel shall not be loaded beyond the limits allowed by the certificate. The position of the load lines on the vessel shall correspond with the certificate. The vessel shall not have been so materially altered as to make the vessel manifestly unfit to proceed to sea without danger to human life, in regard to:

(i) The hull or superstructure (if necessitating assignment of an increased freeboard); and/or,

(ii) The appliances and fittings for protection of openings, guardrails, freeing ports, and means of access to crew's quarters (if necessitating replacement or other effective maintenance).

(2) (Alternatively provided) If the foreign vessel has on board an International Load Line Exemption Certificate in lieu of an International Load Line Certificate, 1966, in such case, verify that it is valid and any conditions stipulated therein are met.

(g) A foreign vessel of a nation for which the 1966 Convention has not come into force does not qualify for an International Load Line Certificate, 1966. In lieu thereof, such a vessel shall be required to have on board a valid Form *B* load line certificate or a recognized 1930 Convention certificate.

[CGFR 68–60, 33 FR 10055, July 12, 1968, as amended by CGFR 68–126, 34 FR 9012, June 5, 1969; USCG–1998–4442, 63 FR 52190, Sept. 30, 1998]

§ 42.07–75 Right of appeal.

Any person directly affected by a decision or action taken under this subchapter, by or on behalf of the Coast

Guard, may appeal therefrom in accordance with subpart 1.03 of this chapter.

[CGD 88–033, 54 FR 50380, Dec. 6, 1989]

Subpart 42.09—Load Line Assignments and Surveys—General Requirements

§ 42.09–1 Assignment of load lines.

(a) The assignment of load lines is conditioned upon the structural efficiency and satisfactory stability of the vessel, and upon the provisions provided on the vessel for her effective protection and that of the crew. Certain vessels, such as vessels carrying all their cargo as deck cargo, or vessels where design or service require special conditions to be applicable, shall have certain stability limitations imposed on them, as may be necessary. When stability limitations for a vessel are prescribed, the assigning authority shall furnish the master the vessel's maximum draft permitted and other conditions, including reference to Commandant approved operating stability features, which may be applicable.

(1) No load line assignment shall be made under this part to a vessel proceeding on a foreign voyage, or where the load line assignment is related to the flooded stability provisions and the vessel is proceeding on a domestic voyage, until the applicable light ship characteristics are established and incorporated into the vessel's stability data approved by the Commandant and furnished to the master of the vessel.

(2) If load line assignments are made to vessels for coastwise voyages before the results of the required stability characteristics are determined and incorporated into the vessel's stability data approved by the Commandant, then such load line assignments shall be regarded as conditional and shall be subject to verification or modification for removal of the conditional status. Any vessel with a conditional load line assignment shall not be loaded beyond a conservative safe draft. Where the Commandant deems it unnecessary, the requirement for furnishing stability information to the masters of coastwise vessels assigned load lines not related to flooded stability may be omitted and the assigning authority and others concerned will be so notified.

(b) Each vessel subject to load line requirements shall carry on board a valid certificate attesting to compliance with such requirements. (See §§ 42.07–35 and 42.07–40 for additional data furnished to the vessel.)

(c) The master of the vessel for which a load line certificate has been issued shall be responsible for the maintenance of such certificate on board such vessel and for compliance with its terms and conditions. Additionally, the master shall be responsible for having the current load line survey report on board the vessel. This report shall be made available to surveyors when carrying out subsequent load line surveys.

[CGFR 68–60, 33 FR 10055, July 12, 1968, as amended by CGFR 68–126, 34 FR 9012, June 5, 1969]

§ 42.09–5 All vessels—division into types.

(a) For the purposes of this part, each vessel to which this part applies is either a Type ''A'' or a Type ''B'' vessel.

(b) A Type ''A'' vessel is a vessel that—

(1) Is designed to carry only liquid cargoes in bulk;

(2) Has a high degree of watertight and structural integrity of the deck exposed to the weather, with only small openings to cargo compartments that are closed by watertight gasketed covers of steel or other material considered equivalent by the Commandant; and

(3) Has a low permeability of loaded cargo compartments.

(c) A Type ''B'' vessel is any vessel that is not a Type ''A'' vessel.

(d) Requirements governing the assignment of freeboards for Types ''A'' and ''B'' vessels are in subparts 42.20 and 42.25 of this part.

[CGD 79–153, 48 FR 38647, Aug. 25, 1983]

§ 42.09–10 Stability, subdivision, and strength.

(a) *All vessels.* Where regulations in this part, or in part 46 of this subchapter, require or permit load line assignment on the basis of the vessel's ability to meet specified flooding, including damage stability requirements,

the owner shall furnish the necessary plans and calculations demonstrating that the vessel is in compliance with the applicable requirements. This material shall be furnished to the assigning authority for approval review at the earliest practicable date except where specifically required by part 46 of this subchapter for passenger vessels to be submitted to the Commandant for approval.

(1) When stability information is required, the plans shall include the location and extent of all watertight subdivision bulkheads, etc., involved.

(2) Additional stability, subdivision, and strength requirements are in §§ 42.09–1, 42.13–1, 42.13–5, and 42.15–1. The applicable flooded stability requirements are in §§ 42.20–3 through 42.20–13.

(b) *Passenger vessels.* In passenger vessels where the positions of the maximum load lines is subject to determination by the application of subdivision and stability requirements in this subchapter, the provisions of both parts 42 and 46 shall be accounted for and developed as necessary. See subchapter H (Passenger Vessels) of this chapter for related data required to be submitted to the Commandant.

(c) *Light ship data.* All plans, etc., necessary for obtaining the Commandant's approval of test results (light ship data) and stability information shall be furnished by the owner. In the absence of existing acceptable light ship stability information, such data shall be obtained from a stability test performed under the supervision of the Commandant. Results of such tests, if satisfactory, will be approved by the Commandant.

[CGFR 68–60, 33 FR 10056, July 12, 1968, as amended by CGFR 68–126, 34 FR 9012, June 5, 1969; CGD 79–153, 48 FR 38647, Aug. 25, 1983]

§ 42.09–15 Surveys by the American Bureau of Shipping or assigning authority.

(a) *General.* Before issuing a certificate or placement of load line marks on a vessel, the assigning and issuing authority shall make an initial or periodic survey of the vessel as required by this subchapter. A load line survey report shall be made, reflecting information and facts based on initial surveys, including required and special elements as may be deemed necessary by the assigning authority or the Commandant.

(b) *Initial survey.* An initial survey shall be made before the vessel is put in service or the first time the assigning authority is requested to survey a vessel. The survey shall include a complete examination of its structure and equipment insofar as required by the applicable requirements in this subchapter. This survey shall be such as to ensure that the arrangements, materials, scantlings, and subsequent placement of load line marks fully comply with applicable requirements.

(c) *Periodical survey.* A periodical survey shall be made at intervals not exceeding five (5) years from an initial or previous periodic survey. The survey shall be similar to the initial survey insofar as extent and purpose are concerned.

(1) If the load line marks are found to be correct for the condition the vessel is then in, the assigning and issuing authority shall issue a new load line certificate, valid for such time as the condition of the vessel then warrants but in no case for a period of longer than 5 years. If, after a survey has been passed, a loadline certificate can not be issued before the current certificate expires, the current certificate may be extended by an endorsement in accordance with the requirements contained in § 42.07–45(d). This endorsement of the assigning authority shall be placed on the back of the certificate, as shown on the forms in subpart 42.50. However, if there have been alterations which affect the vessel's freeboards, such extension shall not be granted. This prohibition is the same as in Article 19(2) of the 1966 Convention.

(2) The periodical survey, including certificate extension or reissue, for a vessel holding an international load line exemption certificate for more than one voyage, shall be the same as for any other vessel covered by this section except for load line marks. However, other conditions specified in the exemption certificate shall be verified.

(d) *Annual surveys for endorsements.* Vessels subject to initial and periodic surveys shall have annual surveys,

within 3 months either way of the certificate's anniversary date. The annual surveys shall be made by and prove satisfactory to the assigning and issuing authority prior to executing the required annual endorsements on load line certificates or exemption certificates. The scope shall be as defined in § 42.09–40 and such as to ensure that the applicable load line marks are found to be correct for the condition the vessel is then in.

[CGFR 68–60, 33 FR 10056, July 12, 1968, as amended by CGFR 68–126, 34 FR 9012, June 5, 1969; CGD 73–49R, 38 FR 12290, May 10, 1973]

§ 42.09–20 Surveys of foreign vessels.

(a) *General.* Foreign vessels of countries which have not ratified or acceded to the 1966 Convention, or which do not have valid certificates issued under other international convention or treaty and recognized by the United States of America, if desiring to depart from a port or place in the United States, the Commonwealth of Puerto Rico, the Territory of Guam, or other U.S. possessions, shall be subjected to survey, marking, and certification by a load line assigning and issuing authority as authorized under § 42.07–35 or § 42.07–40, unless:

(1) The vessel is exempted by the provision of 46 U.S.C. 5102; or

(2) The vessel is under tow and carrying neither passengers nor cargo.

(b) *Scope of survey.* A periodical survey described in § 42.09–15(c) shall be conducted by and prove satisfactory to the assigning and issuing authority. It shall be made prior to issue or reissue of the applicable certificate.

(c) *Certification of load lines.* The assigning and issuing authority after determining the vessel meets the applicable requirements in this part may issue a load line certificate subject to requirements in § 42.07–45 and on the applicable form described in subpart 42.50 of this part: *Provided,* That the load line certificate issued shall be valid for a period of 1 year. The certificate may be revalidated by endorsement for additional 1 year periods if the condition of the vessel so warrants, but in any event the certificate shall become void five (5) years from date of issue, or at the expiration of the fourth (4th) yearly validation, whichever occurs first. Whenever the condition of the vessel warrants special limitations, such information and facts shall be attested to on the front or back of the certificate as necessary, by the assigning and issuing authority.

[CGFR 68–60, 33 FR 10056, July 12, 1968, as amended by CGFR 68–126, 34 FR 9013, June 5, 1969; CGD 80–120, 47 FR 5723, Feb. 8, 1982; USCG–1998–4442, 63 FR 52190, Sept. 30, 1998]

§ 42.09–25 Initial or periodic survey requirements for all vessels.

(a) Before a survey may be completed, the vessel shall be placed in a drydock or hauled out. The surveyor shall be given complete access to all parts of the vessel to ensure that the vessel complies with all applicable requirements.

(b) The surveyor shall examine on all vessels the items, etc., listed in this paragraph to determine if in satisfactory condition and meeting applicable requirements in this subchapter.

(1) Cargo hatch coamings, covers, beams and supports, gaskets, clamps, locking bars, tarpaulins, battens, cleats and wedges of hatches on exposed freeboard, quarter and superstructure decks, and elsewhere as may be necessary.

(2) Structure of the vessel, coamings, closures, and all means of protection provided for openings, such as for ventilators, companionways, machinery casings, fiddleys, funnels, enclosed superstructures on the freeboard deck (and their end bulkheads) or equivalent protective deck houses, openings in the freeboard and superstructure decks, and significant openings at higher levels in the vessel.

(3) Transverse watertight subdivision bulkheads, as fitted, including any openings therein and closures for such openings. They shall be examined throughout their vertical and transverse extent.

(4) All air-pipe outlets, their closures, all scuppers, and all sanitary discharges in the vessel's sides, including nonreturn valves installed.

(5) The main and auxiliary sea inlets and discharges in the machinery space, and elsewhere if existent, and the valves and controls for these items.

(6) All gangways, cargo ports, and airports, including dead covers or other

similar openings in the vessel's sides and their closures.

(7) All guardrails, bulwarks, gangways, and freeing port shutters, including securing devices, and bars.

(8) All eye plates or similar fittings for timber (or other) deck-cargo lashings, including the lashings, sockets for uprights and protective devices as may be necessary for ventilators and steering arrangements.

[CGFR 68–60, 33 FR 10056, July 12, 1968, as amended by CGFR 68–126, 34 FR 9013, June 5, 1969]

§ 42.09–30 Additional survey requirements for steel-hull vessels.

(a) In addition to the requirements in § 42.09–25, the surveyor of the assigning authority shall examine the items, etc., listed in this section, to determine if in satisfactory condition and meeting applicable requirements in this subchapter.

(b) When the vessel is in drydock, the hull plating, etc., shall be examined.

(c) The holds, 'tween decks, peaks, bilges, machinery spaces, and bunkers shall be examined to determine the condition of the framing, etc.

(d) The deep tanks and other tanks which form part of the vessel shall be examined internally.

(e) If a double bottom is fitted, the tanks normally shall be examined internally. Where double bottom and other tanks are used for fuel-oil bunkers, such tanks need not be cleaned out, if the surveyor is able to determine by an external examination that their general condition is satisfactory.

(f) The deck shall be examined.

(g) Where, owing to the age and condition of the vessel or otherwise, the surveyor deems it necessary, the shell and deck plating may be required to be drilled or other acceptable means used, in order to ascertain the then thickness of such plating.

[CGFR 68–60, 33 FR 10057, July 12, 1968]

§ 42.09–35 Additional survey requirements for wood-hull vessels.

(a) In addition to the requirements in § 42.09–25, the surveyor of the assigning authority shall examine the items, etc., listed in this section, to determine if in satisfactory condition and meeting the applicable requirements in this subchapter.

(b) When the vessel is in drydock or hauled out, the keel, stem, stern frame or sternpost, outside planking, and caulking shall be examined.

(c) The fasteners shall be examined. Bolts, screws, or equivalent fastenings, as deemed necessary by the surveyor, must be backed out, or otherwise dealt with, to ensure soundness.

(d) The holds, 'tween decks, peaks, bilges, machinery spaces, and bunkers shall be examined.

(e) The entire structure, including decks, shall be examined. If considered necessary by the surveyor, borings shall be made, or other means may be used, to ascertain the condition of the materials. Should these measures disclose sufficient cause, further examination to satisfy the surveyor as to the true condition shall be made and check locations listed. This list shall be submitted to the assigning and issuing authority for record purposes, and for use in subsequent surveys.

[CGFR 68–60, 33 FR 10057, July 12, 1968]

§ 42.09–40 Annual surveys.

(a) Relative to §§ 42.09–15(d) and 42.09–20(c), the assigning and issuing authority shall make an annual survey of each vessel holding an appropriate certificate issued under this subchapter.

(b) The annual survey shall be of such scope and extent so as to ensure:

(1) The maintenance in an effective condition of the fittings and appliances for the:

(i) Protection of openings;

(ii) Guardrails;

(iii) Freeing ports; and,

(iv) Means of access to crew's quarters.

(2) That there have not been alterations made to the hull or superstructure which would affect the calculations determining the position of the load line marks.

(c) The assigning and issuing authority shall report on the annual survey made to the owner of the vessel.

[CGFR 68–60, 33 FR 10057, July 12, 1968 as amended by CGD 80–143, 47 FR 25149, June 10, 1982]

§42.09–45 Correction of deficiencies.

(a) During and after any survey made by the assigning and issuing authority, those items, fittings, etc., which are found to be in an unsatisfactory condition by the surveyor shall be repaired or renewed in order to place the vessel in a satisfactory condition.

(b) No load line certificate shall be issued, endorsed, extended, or reissued or delivered to a vessel subject to this subchapter until after unsatisfactory conditions have been corrected as required by paragraph (a) of this section.

[CGFR 68–60, 33 FR 10057, July 12, 1968, as amended by CGFR 68–126, 34 FR 9013, June 5, 1969]

§42.09–50 Repairs or alterations to vessel after it has been surveyed.

(a) After any survey of the vessel made under §§42.09–25 to 42.09–40, inclusive, as applicable, has been completed and deficiencies corrected as provided in §42.09–45, no change shall be made in the vessel's structure, equipment, arrangement, material, or scantlings as covered by such survey, without the prior specific approval of the assigning and issuing authority.

(b) To avoid a freeboard or other penalty, any vessel which undergoes repairs, alterations, or modifications, including outfitting related thereto, shall continue to comply with the applicable requirements consistent with the load line certificate held.

(c) An existing vessel, which had a load line assigned under previous regulations which undergoes repairs, alterations, or modifications of a major character, shall meet the requirements for a new vessel in this part insofar as the assigning and issuing authority and the Commandant deem reasonable and practicable.

[CGFR 68–60, 33 FR 10057, July 12, 1968, as amended by CGD 80–120, 47 FR 5723, Feb. 8, 1982]

Subpart 42.11—Applications for Load Line Assignments, Surveys, and Certificates

§42.11–1 General.

(a) As described in this subchapter under §§42.07–35, 42.07–40, 42.09–15, and 42.09–20, the American Bureau of Shipping or other recognized classification societies approved as load line assigning and issuing authorities perform the duties connected with making load line assignments to vessels.

(b) The Commandant is responsible for the administration of the load line acts, the 1966 Convention, other treaties regarding load lines, and the implementing regulations in this subchapter which include prescribed form and content of applicable load line certificates.

(c) Except in special instances for Coast Guard vessels, the Commandant does not perform the duties of a load line assigning authority.

[CGFR 68–60, 33 FR 10057, July 12, 1968, as amended by CGFR 68–126, 34 FR 9013, June 5, 1969; CGD 80–120, 47 FR 5723, Feb. 8, 1982]

§42.11–5 Applications for load line assignments, surveys, and certificates for U.S.-flag vessels.

(a) Normally, the owner, master, or agent of a vessel shall apply in writing, on a timely basis, to the American Bureau of Shipping for the assignment, survey, and certification of load lines. When nonconcurrent, a separate application shall be made for each function desired and submitted on a timely basis. The mailing address of the home office of American Bureau of Shipping is ABS Plaza, 16855 Northchase Drive, Houston, TX 77060.

(b) After the Commandant has approved a recognized classification society as a load line assigning and issuing authority for a vessel, as described in a written request of the shipowner, the owner shall apply in writing, on a timely basis, direct to the approved assigning and issuing authority for the assignment, survey, and certification of load lines. When nonconcurrent, a separate application shall be made to such authority for each function desired, and submitted on a timely basis.

[CGFR 68–60, 33 FR 10057, July 12, 1968, as amended by CGFR 68–126, 34 FR 9013, June 5, 1969; CGD 96–041, 61 FR 50727, Sept. 27, 1996; USCG–2000–7790, 65 FR 58459, Sept. 29, 2000]

§42.11–10 Applications for load line assignments and certificates for vessels other than U.S.-flag vessels.

(a) The application for the assignment of load lines and certificate for a

foreign vessel belonging to (or which will belong to) either a country ratifying or acceding to the International Convention on Load Lines, 1966, or to a country with which the United States of America has a reciprocal load line agreement in effect shall be made by the Government whose flag the vessel flies, or will fly. The application may be made direct to the American Bureau of Shipping, or after receiving the Commandant's approval, to a recognized classification society which that country has requested as an assigning and issuing authority. When the load line assignment and certificate are authorized pursuant to the requirements in this part, the certificate must contain a statement that it has been issued at the request of a specific Government, which shall be named therein.

(1) When the load line assignment is performed under the applicable regulations in this subchapter, the assigning and issuing authority shall transmit to the requesting Government at the earliest practicable date, one copy of each certificate issued, the load line survey report used for computing the freeboard, and the freeboard computations. For information, the assigning and issuing authority shall also notify the Commandant of the names of the vessel and the Government involved and the date and place where the work was done.

(b) For a foreign vessel of a country not included in paragraph (a) of this section, the owner, master, or agent normally shall apply in writing to the American Bureau of Shipping, or to any other recognized assigning and issuing authority after it has been approved by the Commandant, for the assignment, survey, and certification of load lines, or for reissue of a load line certificate, as may be necessary for the vessel to clear ports of the United States, the Commonwealth of Puerto Rico, the Territory of Guam, or other U.S. possessions. Normally the same requirements, conditions, procedures, distribution of applicable certificates, etc., shall be applied to such foreign vessels which are applied to similar U.S.-flag vessels of 150 gross tons or over.

[CGFR 68–60, 33 FR 10058, July 12, 1968, as amended by CGFR 68–126, 34 FR 9013, June 5, 1969]

§ 42.11–15 Application for timber load lines.

(a) The owner, master, or agent of a vessel having load lines assigned under this subchapter may apply to the assigning and issuing authority for timber load lines when making his application for a load line certificate. After the vessel has been found in compliance with the applicable requirements in this subchapter, it may be marked with timber load lines, which will also be certified to in the load line certificate.

[CGFR 68–60, 33 FR 10058, July 12, 1968, as amended by CGFR 68–126, 34 FR 9013, June 5, 1969]

§ 42.11–20 Application for annual survey.

(a) The owner, master, or agent of a vessel holding a load line certificate shall apply to the assigning and issuing authority who issued the certificate for the annual survey required by § 42.09–40 or the International Convention on Load Lines, 1966.

[CGFR 68–60, 33 FR 10058, July 12, 1968]

Subpart 42.13—General Rules for Determining Load Lines

§ 42.13–1 Assumptions.

(a) The regulations in this part are based on the assumption that the nature and stowage of the cargo, ballast, etc., are such as will secure sufficient stability of the vessel and avoid excessive structural stress.

(b) The regulations in this part are also based on the assumption that, where there are other international requirements relating to stability or subdivision applicable to vessels, these requirements have been met.

[CGFR 68–60, 33 FR 10058, July 12, 1968]

§ 42.13–5 Strength of vessel.

(a) The assigning and issuing authority shall satisfy itself that the general

structural strength of the vessel is sufficient for the draft corresponding to the freeboard assigned, and when requested shall furnish pertinent strength information to the Commandant.

(b) Vessels built and maintained in conformity with the requirements of a classification society recognized by the Commandant are considered to possess adequate strength for the purpose of the applicable requirements in this subchapter unless deemed otherwise by the Commandant.

[CGFR 68–60, 33 FR 10058, July 12, 1968, as amended by CGFR 68–126, 34 FR 9013, June 5, 1969]

§ 42.13–10 Freeboards assigned vessels.

(a) Vessels with mechanical means of propulsion, or lighters, barges, or other vessels without independent means of propulsion, shall be assigned freeboards in accordance with the provisions of §§ 42.13–1 to 42.20–75, inclusive.

(b) Vessels carrying timber deck cargoes may be assigned, in addition to the freeboards required by paragraph (a) of this section, timber freeboards in accordance with the provisions of §§ 42.25–1 to 42.25–20, inclusive.

(c) Vessels designed to carry sail, whether as the sole means of propulsion or as a supplementary means, and tugs, shall be assigned freeboards in accordance with the provisions of §§ 42.13–1 to 42.20–75, inclusive, and such additional freeboards as determined necessary by the Commandant under the procedure of paragraph (f) of this section.

(d) Vessels of wood or of composite construction, or of other materials the use of which the Commandant has approved, or vessels whose constructional features are such as to render the application of the provisions of §§ 42.13–1 to 42.25–20 unreasonable or impracticable, shall be assigned freeboards as determined necessary by the Commandant under the procedure of paragraph (f) of this section.

(e) The requirements in §§ 42.15–1 to 42.15–80, inclusive, shall apply to every vessel to which a minimum freeboard is assigned. Relaxations from these requirements may be granted to a vessel to which a greater than minimum freeboard is assigned provided the safety conditions of the vessel are determined to be satisfactory under paragraph (f) of this section.

(f) In each case specified by paragraphs (c) to (e) inclusive of this section, the assigning authority shall report to the Commandant the specific matters in which the vessel is deficient or requires special freeboard consideration due to design, arrangement, construction materials, propulsive method, or relaxation of requirements in this part. The report shall also furnish background data and recommendations of the assigning authority (including freeboard additions), as will enable the Commandant to reach a decision.

[CGFR 68–60, 33 FR 10058, July 12, 1968, as amended by CGFR 68–126, 34 FR 9013, June 5, 1969]

§ 42.13–15 Definitions of terms.

(a) *Length.* The length (*L*) shall be taken as 96 percent of the total length on a waterline at 85 percent of the least molded depth measured from the top of the keel, or as the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that be greater. In vessels designed with a rake of keel the waterline on which this length is measured shall be parallel to the designed waterline.

(b) *Perpendiculars.* The forward and after perpendiculars shall be taken at the forward and after ends of the length (*L*). The forward perpendicular shall coincide with the foreside of the stem on the waterline on which the length is measured.

(c) *Amidships.* Amidships is at the middle of the length (*L*).

(d) *Breadth.* Unless expressly provided otherwise, the breadth (*B*) is the maximum breadth of the vessel, measured amidships to the molded line of the frame in a vessel with a metal shell and to the outer surface of the hull in a vessel with a shell of any other material.

(e) *Molded depth.* (1) The molded depth is the vertical distance measured from the top of the keel to the top of the freeboard deck beam at side. In wood and composite vessels the distance is measured from the lower edge of the keel rabbet. Where the form at the lower part of the midship section is of a hollow character, or where thick

garboards are fitted, the distance is measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel.

(2) In vessels having rounded gunwales, the molded depth shall be measured to the point of intersection of the molded lines of the deck and sides, the lines extending as though the gunwale were of angular design.

(3) Where the freeboard deck is stepped and the raised part of the deck extends over the point at which the molded depth is to be determined, the molded depth shall be measured to a line of reference extending from the lower part of the deck along a line parallel with the raised part.

(f) *Depth for freeboard* (*D*). (1) The depth for freeboard (*D*) is the molded depth amidships, plus the thickness of the freeboard deck stringer plate, where fitted, plus

$$T(L-S)/L$$

if the exposed freeboard deck is sheathed;

where:

T is the mean thickness of the exposed sheathing clear of deck openings; and

S is the total length of superstructures as defined in paragraph (j)(4) of this section.

(2) The depth for freeboard (*D*) in a vessel having a rounded gunwale with a radius greater than 4 percent of the breadth (*B*) or having topsides of unusual form is the depth for freeboard of a vessel having a midship section with vertical topsides and with the same round of beam and area of topside section equal to that provided by the actual midship section.

(g) *Block coefficient*. The block coefficient (C_b) is given by

$$C_b=\Delta/L.B.d_1$$

where Δ is the volume of the molded displacement of the vessel, excluding bossing, in a vessel with a metal shell, and is the volume of displacement to the outer surface of the hull in a vessel with a shell of any other material, both taken at a molded draft of d_1; and, d_1 is 85 percent of the least molded depth.

(h) *Freeboard*. The freeboard assigned is the distance measured vertically downward amidships from the upper edge of the deck line to the upper edge of the related load line.

(i) *Freeboard deck*. (1) The freeboard deck is normally the uppermost complete deck exposed to weather and sea, which has permanent means of closing all openings in the weather part thereof, and below which all openings in the sides of the vessel are fitted with permanent means of watertight closing. In a vessel having a discontinuance freeboard deck, the lowest line of the exposed deck and the continuation of that line parallel to the upper part of the deck is taken as the freeboard deck. At the option of the owner and subject to the approval of the assigning authority a lower deck may be designated as the freeboard deck, provided it is a complete and permanent deck continuous in a fore and aft direction at least between the machinery space and peak bulkheads and continuous athwartships. When this lower deck is stepped the lowest line of the deck and the continuation of that line parallel to the upper part of the deck is taken as the freeboard deck.

(2) When a lower deck is designated as the freeboard deck, that part of the hull which extends above the freeboard deck is treated as a superstructure so far as concerns the application of the conditions of assignment and the calculation of freeboard. It is from this deck that the freeboard is calculated.

(j) *Superstructure*. (1) A superstructure is a decked structure on the freeboard deck, extending from side to side of the vessel or with the side plating not being inboard of the shell plating more than 4 percent to the breadth. (*B*). A raised quarter deck is regarded as a superstructure.

(2) An enclosed superstructure is a superstructure with:

(i) Enclosing bulkheads of efficient construction;

(ii) Access openings, if any in these bulkheads fitted with doors complying with the requirements of § 42.15–10; and,

(iii) All other openings in sides or ends of the superstructure fitted with efficient weathertight means of closing.

NOTE: A bridge or poop shall not be regarded as enclosed unless access is provided for the crew to reach machinery and other working spaces inside the superstructures by alternative means, which are available at all times when bulkhead openings are closed.

(3) The height of a superstructure is the least vertical height measured at side from the top of the superstructure deck beams to the top of the freeboard deck beams.

(4) The length of a superstructure (*S*) is the mean length of the part of the superstructure which lies within the length (*L*).

(k) *Flush deck vessel.* A flush deck vessel is one which has no superstructure on the freeboard deck.

(l) *Weathertight.* Weathertight means that in any sea conditions water will not penetrate into the vessel.

[CGFR 68–60, 33 FR 10058, July 12, 1968, as amended by CGFR 68–126, 34 FR 9013, June 5, 1969; 43 FR 31928, July 24, 1978]

§ 42.13–20 Deck line.

(a) The deck line is a horizontal line 12 inches in length and 1 inch in breadth. It shall be marked amidships on each side of the vessel, and its upper edge shall normally pass through the point where the continuation outwards of the upper surface of the freeboard deck intersects the outer surface of the shell (as illustrated in Figure 42.13–20(a)), provided that the deck line may be placed with reference to another fixed point on the vessel on condition that the freeboard is correspondingly corrected. The location of the reference point and the identification of the freeboard deck shall in all cases be indicated on the International Load Line Certificate (1966), and, as applicable, on all other load line certificates issued pursuant to this part 42.

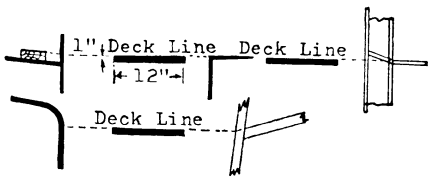


FIGURE 42.13–20(A)—DECK LINE

[CGFR 68–60, 33 FR 10059, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

§ 42.13–25 Load line mark.

(a) The load line mark shall consist of a ring 12 inches in outside diameter and 1 inch wide which is intersected by a horizontal line 18 inches in length and 1 inch in breadth, the upper edge of which passes through the center of the ring. The center of the ring shall be placed amidships and at a distance equal to the assigned summer freeboard measured vertically below the upper edge of the deck line (as illustrated in Figure 42.13–25(a)).

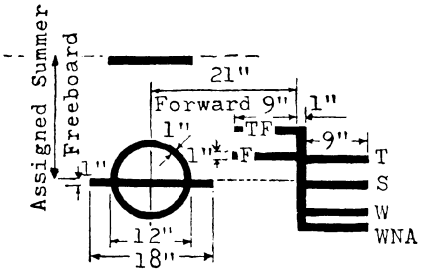


FIGURE 42.13–25(A)—LOAD LINE MARK AND LINES TO BE USED WITH THIS MARK

[CGFR 68–60, 33 FR 10059, July 12, 1968]

§ 42.13–30 Lines to be used with the load line mark.

(a) The lines which indicate the load line assigned in accordance with the regulations in this part shall be horizontal lines 9 inches in length and 1 inch in breadth which extend forward of, unless expressly provided otherwise, and at right angles to, a vertical line 1 inch in breadth marked at a distance 21 inches forward of the center of the ring (as illustrated in Figure 42.13–25(a)).

(b) The following load lines shall be used:

(1) The summer load line indicated by the upper edge of the line which passes through the center of the ring and also by a line marked *S*.

(2) The winter load line indicated by the upper edge of a line marked *W*.

(3) The winter North Atlantic load line indicated by the upper edge of a line marked *WNA*.

(4) The tropical load line indicated by the upper edge of a line marked *T*.

(5) The fresh water load line in summer indicated by the upper edge of a line marked *F*. The fresh water load line in summer is marked abaft the vertical line. The difference between the fresh water load line in summer

and the summer load line is the allowance to be made for loading in fresh water at the other load lines.

(6) The tropical fresh water load line indicated by the upper edge of a line marked *TF*, and marked abaft the vertical line.

(c) If timber freeboards are assigned, the timber load lines shall be marked in addition to ordinary load lines. These lines shall be horizontal lines 9 inches in length and 1 inch in breadth which extend abaft unless expressly provided otherwise, and are at right angles to, a vertical line 1 inch in breadth marked at a distance 21 inches abaft the center of the ring (as illustrated in Figure 42.13–30(c)).

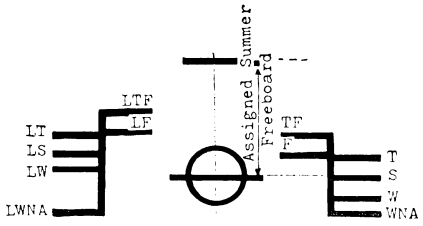


FIGURE 42.13–30(C)—TIMBER LOAD LINE MARK AND LINES TO BE USED WITH THIS MARK

(d) The following timber load lines shall be used:

(1) The summer timber load line indicated by the upper edge of a line marked *LS*.

(2) The winter timber load line indicated by the upper edge of a line marked *LW*.

(3) The winter North Atlantic timber load line indicated by the upper edge of a line marked *LWNA*.

(4) The tropical timber load line indicated by the upper edge of a line marked *LT*.

(5) The fresh water timber load line in summer indicated by the upper edge of a line marked *LF* and marked forward of the vertical line.

NOTE: The difference between the fresh water timber load line in summer and the summer timber load line is the allowance to be made for loading in fresh water at the other timber load lines.

(6) The tropical fresh water timber load line indicated by the upper edge of a line marked *LTF* and marked forward of the vertical line.

(e) Where the characteristics of a vessel, or the nature of the vessel's service or navigational limits make any of the seasonal lines inapplicable, these lines may be omitted.

(f) Where a vessel is assigned a greater than minimum freeboard so that the load line is marked at a position corresponding to, or lower than, the lowest seasonal load line assigned at minimum freeboard in accordance with the present Convention, only the fresh water load line need be marked.

(g) On sailing vessels only the fresh water load line and the winter North Atlantic load line need be marked (as illustrated in Figure 42.13–30(g)).

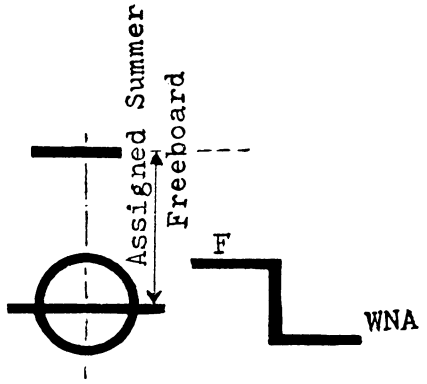


FIGURE 42.13–30(G)—LOAD LINE MARK ON SAILING VESSEL AND LINES TO BE USED WITH THIS MARK

(h) Where a winter North Atlantic load line is identical with the winter load line corresponding to the same vertical line, this load line shall be marked *W*.

(i) Additional load lines required by other international conventions in force may be marked at right angles to and abaft the vertical line specified in paragraph (a) of this section.

[CGFR 68–60, 33 FR 10059, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

§ 42.13–35 Mark of assigning authority.

(a) The mark of the assigning authority by whom the load lines are assigned may be indicated alongside the load line ring above the horizontal line which passes through the center of the

ring, or above and below it. This mark shall consist of not more than four initials to identify the assigning authority's name, each measuring approximately 4½ inches in height and 3 inches in width.

[CGFR 68–60, 33 FR 10060, July 12, 1968]

§42.13–40 Details of marking.

(a) The ring, lines and letters shall be painted in white or yellow on a dark ground or in black on a light ground. They shall also be permanently marked on the sides of the vessels to the satisfaction of the assigning authority. The marks shall be plainly visible and, if necessary, special arrangements shall be made for this purpose.

[CGFR 68–60, 33 FR 10060, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

§42.13–45 Verification of marks.

(a) The International Load Line Certificate (1966) shall not be delivered to the vessel until §42.07–5 has been fully complied with under the authority and provisions of subparts 42.07 and 42.09 of this part.

[CGFR 68–60, 33 FR 10060, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

Subpart 42.15—Conditions of Assignment of Freeboard

§42.15–1 Information to be supplied to the master.

(a) The master of every new vessel shall be supplied with sufficient information in a form approved by the assigning and issuing authority, to enable him to arrange for the loading and ballasting of his vessel in such a way as to avoid the creation of any unacceptable stresses in the vessel's structure: *Provided,* That this requirement need not apply to any particular length, design or class of vessel where the Commandant considers it to be unnecessary and so notifies the assigning and issuing authority.

(b) The master of every new vessel, which is not already provided with stability information under an international convention for the safety of life at sea in force, shall be supplied with sufficient information in a form approved by the Commandant, to give him guidance as to the stability of the vessel under varying conditions of service, and a copy shall be furnished to the Commandant.

[CGFR 68–60, 33 FR 10060, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

§42.15–5 Superstructure end bulkheads.

(a) Bulkheads at exposed ends of enclosed superstructures shall be of efficient construction and shall be to the satisfaction of the assigning authority.

[CGFR 68–60, 33 FR 10060, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

§42.15–10 Doors.

(a) All access openings in bulkheads at ends of enclosed superstructures shall be fitted with doors of steel or other equivalent material, permanently and strongly attached to the bulkhead, and framed, stiffened and fitted so that the whole structure is of equivalent strength to the unpierced bulkhead and weathertight when closed. The means for securing these doors weathertight shall consist of gaskets and clamping devices or other equivalent means and shall be permanently attached to the bulkhead or to the doors themselves, and the doors shall be so arranged that they can be operated from both sides of the bulkhead.

(b) Except as otherwise provided in these regulations, the height of the sills of access openings in bulkheads at ends of enclosed superstructures shall be at least 15 inches above the deck.

[CGFR 68–60, 33 FR 10060, July 12, 1968]

§42.15–15 Positions of hatchways, doorways and ventilators.

(a) For the purpose of this part two positions of hatchways, doorways and ventilators are defined as follows:

(1) Position 1: Upon exposed freeboard and raised quarter decks, and upon exposed superstructure decks situated forward of a point located a quarter of the vessel's length from the forward perpendicular.

(2) Position 2: Upon exposed superstructure decks situated abaft a quarter of the vessel's length from the forward perpendicular.

[CGFR 68–60, 33 FR 10060, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

§ 42.15–20 Cargo and other hatchways.

(a) The construction and the means for securing the weathertightness of cargo and other hatchways in positions 1 and 2 shall be at least equivalent to the requirements of §§ 42.15–25 and 42.15–30.

(b) Coamings and hatchway covers to exposed hatchways on decks above the superstructure deck shall comply with the requirements of the assigning authority.

[CGFR 68–60, 33 FR 10060, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

§ 42.15–25 Hatchways closed by portable covers and secured weathertight by tarpaulins and battening devices.

(a) *Hatchway coamings.* (1) The coamings of hatchways closed by portable covers secured weathertight by tarpaulins and battening devices shall be of substantial construction, and their height above the deck shall be at least as follows:

(i) 23½ inches if in position 1.

(ii) 17½ inches if in position 2.

(b) *Hatchway covers.* (1) The width of each bearing surface for hatchway covers shall be at least 2½ inches.

(2) Where covers are made of wood, the finished thickness shall be at least 2⅜ inches in association with a span of not more than 4.9 feet.

(3) Where covers are made of mild steel, the strength shall be calculated with assumed loads not less than 358 pounds per square foot on hatchways in position 1, and not less than 266 pounds per square foot on hatchways in position 2, and the product of the maximum stress thus calculated and the factor 4.25 shall not exceed the minimum ultimate strength of the material. They shall be so designed as to limit the deflection to not more than 0.0028 times the span under these loads.

(4) The assumed loads on hatchways in position 1 may be reduced to 205 pounds per square foot for vessels of 79 feet in length and shall be not less than 358 pounds per square foot for vessels of 328 feet in length. The corresponding loads on hatchways in position 2 may be reduced to 154 pounds per square foot and 266 pounds per square foot respectively. In all cases values at intermediate lengths shall be obtained by linear interpolation.

(c) *Portable beams.* (1) Where portable beams for supporting hatchway covers are made of mild steel the strength shall be calculated with assumed loads not less than 358 pounds per square foot on hatchways in position 1 and not less than 266 pounds per square foot on hatchways in position 2 and the product of the maximum stress thus calculated and the factor 5 shall not exceed the minimum ultimate strength of the material. They shall be so designed as to limit the deflection to not more than 0.0022 times the span under these loads. For vessels of not more than 328 feet in length the requirements of paragraph (b)(4) of this section are applicable.

(d) *Pontoon covers.* (1) Where pontoon covers used in place of portable beams and covers are made of mild steel the strength shall be calculated with the assumed loads given in paragraph (b)(3) of this section, and the product of the maximum stress thus calculated and the factor 5 shall not exceed the minimum ultimate strength of the material. They shall be so designed as to limit the deflection to not more than 0.0022 times the span. Mild steel plating forming the tops of covers shall be not less in thickness than 1 percent of the spacing of stiffeners or 0.24 inches if that be greater. For vessels of not more than 328 feet in length the requirements of paragraph (b)(4) of this section are applicable.

(2) The strength and stiffness of covers made of materials other than mild steel shall be equivalent to those of mild steel to the satisfaction of the assigning authority.

(e) *Carriers or sockets.* (1) Carriers or sockets for portable beams shall be of substantial construction, and shall provide means for the efficient fitting and securing of the beams. Where rolling

types of beams are use, the arrangements shall ensure that the beams remain properly in position when the hatchway is closed.

(f) *Cleats.* (1) Cleats shall be set to fit the taper of the wedges. They shall be at least 2½ inches wide and spaced not more than 23½ inches center to center; the cleats along each side or end shall be not more than 6 inches from the hatch corners.

(g) *Battens and wedges.* (1) Battens and wedges shall be efficient and in good condition. Wedges shall be of tough wood or other equivalent material. They shall have a taper of not more than 1 in 6 and shall be not less than ½-inch thick at the toes.

(h) *Tarpaulins.* (1) At least two layers of tarpaulin in good condition shall be provided for each hatchway in positions 1 and 2.

(2) The tarpaulins shall be waterproof and of ample strength. They shall be of a material of at least a standard weight and quality as approved by the assigning and issuing authority.

(i) *Security of hatchway covers.* (1) For all hatchways in position 1 or 2, steel bars or other equivalent means shall be provided in order efficiently and independently to secure each section of hatchway covers after the tarpaulins are battened down. Hatchway covers of more than 4.9 feet in length shall be secured by at least two such securing appliances.

[CGFR 68–60, 33 FR 10060, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

§ 42.15–30 Hatchways closed by weathertight covers of steel or other equivalent material fitted with gaskets and clamping devices.

(a) *Hatchway coamings.* At positions 1 and 2 the height above the deck of hatchway coamings fitted with weathertight hatch covers of steel or other equivalent material fitted with gaskets and clamping devices shall be as specified in § 42.15–25(a)(1). The height of these coamings may be reduced, or the coamings omitted entirely, on condition that the assigning authority is satisfied that the safety of the vessel is not thereby impaired in any sea conditions. Where coamings are provided they shall be of substantial construction.

(b) *Weathertight covers.* (1) Where weathertight covers are of mild steel the strength shall be calculated with assumed loads not less than 358 pounds per square foot on hatchways in position 1, and not less than 255 pounds per square foot on hatchways in position 2, and the product of the maximum stress thus calculated and the factor of 4.25 shall not exceed the minimum ultimate strength of the material. They shall be so designed as to limit the deflection to not more than 0.0028 times the span under these loads. Mild steel plating forming the tops of covers shall be not less in thickness than one percent of the spacing of stiffeners or 0.24 inches if that be greater. The provisions of § 42.15–25(b)(4) are applicable for vessels of not more than 328 feet in length.

(2) The strength and stiffness of covers made of materials other than mild steel shall be equivalent to those of mild steel to the satisfaction of the assigning authority.

(c) *Means for securing weathertightness.* (1) The means for securing and maintaining weathertightness shall be to the satisfaction of the assigning authority.

(2) The arrangements shall ensure that the tightness can be maintained in any sea conditions. For this purpose tests for tightness shall be required at the initial surveys, and may be required at periodical surveys and at annual surveys or at more frequent intervals.

[CGFR 68–60, 33 FR 10061, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

§ 42.15–35 Machinery space openings.

(a) Machinery space openings in position 1 or 2 shall be properly framed and efficiently enclosed by steel casings of ample strength, and where the casings are not protected by other structures their strength shall be specifically considered. Access openings in such casings shall be fitted with doors complying with the requirements of § 42.15–10(a), the sills of which shall be at least 23½ inches above the deck if in position 1, and at least 15 inches above the deck if in position 2. Other openings in such

casings shall be fitted with equivalent covers, permanently attached in their proper positions.

(b) Coamings of any fiddley, funnel, or machinery space ventilators in an exposed position on the freeboard or superstructure deck shall be as high above the deck as is reasonable and practicable. Fiddley openings shall be fitted with strong covers of steel or other equivalent material permanently attached in their proper positions and capable of being secured weathertight.

[CGFR 68–60, 33 FR 10061, July 12, 1968]

§ 42.15–40 Miscellaneous openings in freeboard and superstructure decks.

(a) Manholes and flush scuttles in position 1 or 2 or within superstructures other than enclosed superstructures shall be closed by substantial covers capable of being made watertight. Unless secured by closely spaced bolts, the covers shall be permanently attached.

(b) Openings in freeboard decks other than hatchways, machinery space openings, manholes, and flush scuttles shall be protected by an enclosed superstructure, or by a deckhouse or companionway of equivalent strength and weathertightness. Any such opening in an exposed superstructure deck or in the top of a deckhouse on the freeboard deck which gives access to a space below the freeboard deck or a space within an enclosed superstructure shall be protected by an efficient deckhouse or companionway. Doorways in such deckhouses or companionways shall be fitted with doors complying with the requirements of § 42.15–10(a).

(c) In position 1 the height above the deck of sills to the doorways in companionways shall be at least 23½ inches. In position 2 they shall be at least 15 inches.

[CGFR 68–60, 33 FR 10061, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

§ 42.15–45 Ventilators.

(a) Ventilators in position 1 or 2 to spaces below the freeboard decks or decks of enclosed superstructures shall have coamings of steel or other equivalent material, substantially constructed and efficiently connected to the deck. Where the coaming of any ventilator exceeds 35½ inches in height it shall be specially supported.

(b) Ventilators passing through superstructures other than enclosed superstructures shall have substantially constructed coamings of steel or other equivalent material at the freeboard deck.

(c) Ventilators in position 1 the coamings of which extend to more than 14.8 feet above the deck, and in position 2 the coamings of which extend to more than 7.5 feet above the deck, need not be fitted with closing arrangements unless specifically required by the assigning authority.

(d) Except as provided in paragraph (c) of this section ventilator openings shall be provided with efficient weathertight closing appliances. In vessels of not more than 328 feet in length the closing appliances shall be permanently attached; where not so provided in other vessels, they shall be conveniently stowed near the ventilators to which they are to be fitted. Ventilators in position 1 shall have coamings of a height of at least 35½ inches above the deck; in position 2 the coamings shall be of a height at least 30 inches above the deck.

(e) In exposed positions, the height of coamings may be required to be increased to the satisfaction of the assigning authority.

[CGFR 68–60, 33 FR 10061, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

§ 42.15–50 Air pipes.

(a) Where air pipes to ballast and other tanks extend above the freeboard or superstructure decks, the exposed parts of the pipes shall be of substantial construction; the height from the deck to the point where water may have access below shall be at least 30 inches on the freeboard deck and 17½ inches on the superstructure deck. Where these heights may interfere with the working of the vessel, a lower height may be approved, provided the assigning authority is satisfied that the closing arrangements and other circumstances justify a lower height.

Satisfactory means permanently attached, shall be provided for closing the openings of the air pipes.

[CGFR 68–60, 33 FR 10062, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

§42.15–55 Cargo ports and other similar openings.

(a) Cargo ports and other similar openings in the sides of vessels below the freeboard deck shall be fitted with doors so designed as to ensure watertightness and structural integrity commensurate with the surrounding shell plating, to the satisfaction of the assigning authority. The arrangements shall be subject to tightness tests at the initial survey and at such subsequent surveys or more frequent intervals as deemed necessary. The number of such openings shall be the minimum compatible with the design and proper working of the vessel.

(b) Unless permitted by the Commandant the lower edge of such openings shall not be below a line drawn parallel to the freeboard deck at side, which has at its lowest point the upper edge of the uppermost load line.

[CGFR 68–60, 33 FR 10062, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

§42.15–60 Scuppers, inlets, and discharges.

(a) Discharges led through the shell either from spaces below the freeboard deck or from within superstructures and deckhouses on the freeboard deck fitted with doors complying with the requirements of §42.15–10 shall be fitted with efficient and accessible means for preventing water from passing inboard. Normally, each separate discharge shall have one automatic nonreturn valve with a positive means of closing it from a position above the freeboard deck. Where, however, the vertical distance from the summer load waterline to the inboard end of the discharge pipe exceeds $0.01L$, the discharge may have two automatic nonreturn valves without positive means of closing: *Provided,* That the inboard valve is always accessible for examination under service conditions; where that vertical distance exceeds $0.02L$ a single automatic nonreturn valve without positive means of closing may be accepted subject to the approval of the assigning authority. The means for operating the positive action valve shall be readily accessible and provided with an indicator showing whether the valve is open or closed.

(b) In manned machinery spaces main and auxiliary sea inlets and discharges in connection with the operation of machinery may be controlled locally. The controls shall be readily accessible and shall be provided with indicators showing whether the valves are open or closed.

(c) Scuppers and discharge pipes originating at any level and penetrating the shell either more than 17½ inches below the freeboard deck or less than 23½ inches above the summer load waterline shall be provided with a nonreturn valve at the shell. This valve, unless required by paragraph (a) of this section, may be omitted if the piping is of thickness as specified in Part 56 in Subchapter F (Marine Engineering) of this chapter.

(d) Scuppers leading from superstructures or deckhouses not fitted with doors complying with the requirements of §42.15–10 shall be led overboard.

(e) All valves and shell fittings required by this section shall be of steel, bronze, or other approved ductile material. Valves of ordinary cast iron or similar material are not acceptable. All pipes to which this section refers shall be of steel or other equivalent material to the satisfaction of the assigning authority.

[CGFR 68–60, 33 FR 10062, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

§42.15–65 Side scuttles.

(a) Side scuttles to spaces below the freeboard deck or to spaces within enclosed superstructures shall be fitted with efficient hinged inside deadlights arranged so that they can be effectively closed and secured watertight.

(b) No side scuttle shall be fitted in a position so that its sill is below a line drawn parallel to the freeboard deck at side and having its lowest point 2.5 percent of the breadth (B) above the load waterline, or 19½ inches, which ever is the greater distance.

(c) The side scuttles, together with their glasses, if fitted, and deadlights, shall be of substantial and approved construction.

[CGFR 68–60, 33 FR 10062, July 12, 1968]

§ 42.15–70 Freeing ports.

(a) Where bulwarks on the weather portions of freeboard or superstructure decks form wells, ample provision shall be made for rapidly freeing the deck of water and for draining them. Except as provided in paragraphs (b) and (c) of this section, the minimum freeing port area (A) on each side of the vessel for each well on the freeboard deck shall be that given by the following formulae in cases where the sheer in way of the well is standard or greater than standard. The minimum area for each well on superstructure decks shall be one-half of the area given by the formulae.

(1) Where the length of bulwark (l) in the well is 66 feet or less $A=7.6+0.115l$ (square feet)

(2) Where l exceeds 66 feet $A=0.23l$ (square feet)

(3) l need in no case be taken as greater than $0.7L$.

(4) If the bulwark is more than 3.9 feet in average height the required area shall be increased by 0.04 square feet per foot of length of well for each foot difference in height. If the bulwark is less than 3 feet in average height, the required area may be decreased by 0.04 square feet per foot of length for each foot difference in height.

(b) In vessels with no sheer the area calculated according to paragraph (a) of this section shall be increased by 50 percent. Where the sheer is less than the standard the percentage shall be obtained by linear interpolation.

(c) Where a vessel is fitted with a trunk which does not comply with the requirements of § 42.20–55(a)(5) or where continuous or substantially continuous hatchway side coamings are fitted between detached superstructures the minimum area of the freeing port openings shall be calculated from Table 42.15–70(c):

TABLE 42.15–70(c)

Breadth of hatchway or trunk in relation to the breadth of vessel	Area of freeing ports in relation to the total area of the bulwarks
40 percent or less	20 percent.
75 percent or more	10 percent.

NOTE: The area of freeing ports at intermediate breadths shall be obtained by linear interpolation.

(d) In vessels having superstructures which are open at either or both ends, adequate provision for freeing the space within such superstructures shall be provided to the satisfaction of the assigning authority.

(e) The lower edges of the freeing ports shall be as near the deck as practicable. Two-thirds of the freeing port area required shall be provided in the half of the well nearest the lowest point of the sheer curve.

(f) All such openings in the bulwarks shall be protected by rails or bars spaced approximately 9 inches apart. If shutters are fitted to freeing ports, ample clearance shall be provided to prevent jamming. Hinges shall have pins or bearings of noncorrodible material. If shutters are fitted with securing appliances, these appliances shall be of approved construction.

[CGFR 68–60, 33 FR 10062, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969]

§ 42.15–75 Protection of the crew.

(a) The strength of the deckhouses used for the accommodation of the crew shall be to the satisfaction of the assigning authority.

(b) Efficient guard rails or bulwarks must be fitted on all exposed parts of the freeboard and superstructure decks as follows:

(1) The height of the bulwarks or guard rails must be at least 39½ inches from the deck, provided that where this height would interfere with the normal operation of the vessel, a lesser height may be approved if the Commandant and the assigning authority are satisfied that adequate protection is provided.

(2) On each vessel that is initially surveyed for load line assignment after January 1, 1976, and that is exclusively

engaged in towing operations, the minimum bulwark or rail height on the freeboard deck may be reduced to 30 inches provided the assigning authority is satisfied that adequate grabrails are provided around the periphery of the deckhouse.

(3) Portable rails may be used when operating conditions warrant their use.

(c) The opening below the lowest course of the guard rails shall not exceed 9 inches. The other courses shall be not more than 15 inches apart. In the case of vessels with rounded gunwales the guard rail supports shall be placed on the flat of the deck.

(d) Satisfactory means (in the form of guard rails, life lines, gangways or underdeck passages, etc.) shall be provided for the protection of the crew in getting to and from their quarters, the machinery space and all other parts used in the necessary work of the vessel.

(e) Deck cargo carried on any vessel shall be so stowed that any opening which is in way of the cargo and which gives access to and from the crew's quarters, the machinery space and all other parts used in the necessary work of the vessel, can be properly closed and secured against the admission of water. Effective protection for the crew in the form of guard rails or life lines shall be provided above the deck cargo if there is no convenient passage on or below the deck of the vessel.

[CGFR 68–60, 33 FR 10062, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969; CGD 74–164, 41 FR 1470, Jan. 8, 1976]

§ 42.15–80 Special conditions of assignment for Type "A" vessels.

(a) *Machinery casings.* Machinery casings on Type ''A'' vessels as defined in § 42.09–5(b) must be protected by an enclosed poop or bridge of at least standard height, or by a deckhouse of equal height and equivalent strength, except that machinery casings may be exposed if there are no openings giving direct access from the freeboard deck to the machinery space. A door complying with the requirements of § 42.15–10 is permitted in the machinery casing if it leads to a space or passageway which is as strongly constructed as the casing and is separated from the stairway to the engine room by a second weathertight door of steel or equivalent material.

(b) *Gangway and access.* (1) An efficiently constructed fore and aft permanent gangway of sufficient strength shall be fitted on Type ''A'' vessels at the level of the superstructure deck between the poop and the midship bridge or deckhouse where fitted, or equivalent means of access shall be provided to carry out the purpose of the gangway, such as passages below deck. Elsewhere, and on Type ''A'' vessels without a midship bridge, arrangements to the satisfaction of the assigning authority shall be provided to safeguard the crew in reaching all parts used in the necessary work of the ship.

(2) Safe and satisfactory access from the gangway level shall be available between separates crew accommodations and also between crew accommodations and the machinery space.

(c) *Hatchways.* Exposed hatchways on the freeboard and forecastle decks or on the tops of expansion trunks on Type ''A'' vessels shall be provided with efficient watertight covers of steel or other equivalent material.

(d) *Freeing arrangements.* (1) Type ''A'' vessels with bulwarks shall have open rails fitted for at least half the length of the exposed parts of the weather deck or other effective freeing arrangements. The upper edge of the sheer strake shall be kept as low as practicable.

(2) Where superstructures are connected by trunks, open rails shall be fitted for the whole length of the exposed parts of the freeboard deck.

[CGFR 68–60, 33 FR 10063, July 12, 1968, as amended by CGFR 68–126, 34 FR 9014, June 5, 1969; CGD 79–153, 48 FR 38647, Aug. 25, 1983]

Subpart 42.20—Freeboards

§ 42.20–3 Freeboard assignment: Type "A" vessels.

(a) A Type ''A'' vessel is assigned a freeboard not less than that based on Table 42.20–15(a)(1) provided that the vessel meets the flooding standard in § 42.20–6.

(b) A vessel that meets the requirements of Subpart D, F, or G of Part 172 of this chapter is considered by the Coast Guard as meeting the flooding

standard referenced in paragraph (a) of this section.

[CGD 79–153, 48 FR 38647, Aug. 25, 1983 as amended by CGD 79–023, 49 FR 26593, June 28, 1984]

§ 42.20–5 Freeboard assignment: Type "B" vessels.

(a) Each Type ''B'' vessel is assigned a freeboard from Table 42.20–15(b)(1) that is increased or decreased by the provisions of this section.

(b) Each Type ''B'' vessel that has a hatchway in position 1, must have the freeboard assigned in accordance with paragraph (a) of this section increased by the amount given in Table 42.20–5(b) unless the hatch cover complies with:

(1) Section 42.15–25(d); or

(2) Section 42.15–30.

TABLE 42.20–5(b)—FREEBOARD INCREASE OVER TABULAR FREEBOARD FOR TYPE ''B'' VESSELS WITH HATCH COVERS NOT COMPLYING WITH § 42.15–25(D) OR § 42.15–30.

[Metric]

Length of ship (meters)	Freeboard increase [1] (millimeters)
[2]108	50
109	52
110	55
111	57
112	59
113	62
114	64
115	68
116	70
117	73
118	76
119	80
120	84
121	87
122	91
123	95
124	99
125	103
126	108
127	112
128	116
129	121
130	126
131	131
132	136
133	142
134	147
135	153
136	159
137	164
138	170
139	175
140	181
141	186
142	191
143	196
144	201
145	206
146	210
147	215
148	219
149	224
150	228
151	232
152	236
153	240
154	244
155	247
156	251
157	254
158	258
159	261
160	264
161	267
162	270
163	273
164	275
165	278
166	280
167	283
168	285
169	287
170	290
171	292
172	294
173	297
174	299
175	301
176	304
177	306
178	308
179	311
180	313
181	315
182	318
183	320
184	322
185	325
186	327
187	329
188	332
189	334
190	336
191	339
192	341
193	343
194	346
195	348
196	350
197	353
198	355
199	357
[3]200	358

[1] Freeboards at intermediate lengths of ship shall be obtained by linear interpolation.

[2] 108 and below.

[3] Ships above 200 meters in length are subject to individual determination by the Commandant.

[English]

Length of ship (feet)	Freeboard increase [1] (inches)
[2]350	2.0
360	2.3

[English]

Length of ship (feet)	Freeboard increase [1] (inches)
370	2.6
380	2.9
390	3.3
400	3.7
410	4.2
420	4.7
430	5.2
440	5.8
450	6.4
460	7.0
470	7.6
480	8.2
490	8.7
500	9.2
510	9.6
520	10.0
530	10.4
540	10.7
550	11.0
560	11.4
570	11.8
580	12.1
590	12.5
600	12.8
610	13.1
620	13.4
630	13.6
640	13.9
650	14.1
[3]660	14.3

[1] Freeboards at intermediate lengths of ship be obtained by linear interpolation.
[2] 350 and below.
[3] Ships above 660 feet in length are subject to individual determination by the Commandant.

(c) Any Type ''B'' vessel that is greater than 100 meters (328 feet) in length and any hopper dredge meeting the requirements in Subpart C of Part 44 of this chapter may have a reduced freeboard from that assigned under Table 42.20–15(b)(1) in accordance with paragraph (d) or paragraph (e) of this section if—

(1) The measures provided for the protection of the crew are adequate;

(2) The freeing arrangements are adequate; and

(3) The hatchway covers in positions 1 and 2 comply with the provisions of § 42.15–30 and have adequate strength, special care being given to their sealing and securing arrangements.

(d) The freeboards for a Type ''B'' vessel which comply with paragraph (c) of this section may be reduced up to 60 percent of the total difference between the freeboards in Table 42.20–15(b)(1) and Table 42.20–15(a)(1) provided that the vessel meets the flooding standard in § 42.20–7.

(e) The freeboards for a Type ''B'' vessel which complies with paragraph (c) of this section may be reduced up to the total difference between the freeboard tables referenced in paragraph (d) of this section provided that the vessel meets the flooding standard in § 42.20–8 and the provisions of § 42.15–80 (a), (b) and (d) as if it were a Type ''A'' vessel.

[CGD 79–153, 48 FR 38647, Aug. 25, 1983, as amended by CGD 76–080, 54 FR 36976, Sept. 6, 1989]

§ 42.20–6 Flooding standard: Type "A" vessels.

(a) Design calculations must be submitted that demonstrate that the vessel will remain afloat in the conditions of equilibrium specified in § 42.20–12 assuming the damage specified in § 42.20–11 as applied to the following flooding standards:

(1) If the vessel is over 150 meters (492 feet) in length it must be able to withstand the flooding of any one compartment, except the machinery space.

(2) If the vessel is over 225 meters (738 feet) in length, it must be able to withstand the flooding of any one compartment, treating the machinery space as a floodable compartment.

(b) When doing the calculations required in paragraph (a) of this section, the following permeabilities must be assumed:

(1) 0.95 in all locations except the machinery space.

(2) 0.85 in the machinery space.

[CGD 79–153, 48 FR 38648, Aug. 25, 1983]

§ 42.20–7 Flooding standard: Type "B" vessel, 60 percent reduction.

(a) Design calculations must be submitted that demonstrate that the vessel will remain afloat in the conditions of equilibrium specified in § 42.20–12 assuming the damage specified in § 42.20–11 as applied to the following flooding standards:

(1) If the vessel is 225 meters (738 feet) or less in length, it must be able to withstand the flooding of any one compartment, except the machinery space.

(2) If the vessel is over 225 meters (738 feet) in length, it must be able to withstand the flooding of any one compartment, treating the machinery space as a floodable compartment.

(b) When doing the calculations required in paragraph (a) of this section,

the following permeabilities must be assumed:

(1) 0.95 in all locations except the machinery space.

(2) 0.85 in the machinery space.

[CGD 79–153, 48 FR 38648, Aug. 25, 1983]

§ 42.20–8 Flooding standard: Type "B" vessel, 100 percent reduction.

(a) Design calculations must be submitted that demonstrate that the vessel will remain afloat in the conditions of equilibrium specified in § 42.20–12 assuming the damage specified in § 42.20–11 as applied to the following flooding standards:

(1) If the vessel is 225 meters (738 feet) or less in length, it must be able to withstand the flooding of any two adjacent fore and after compartments excluding the machinery space;

(2) If the vessel is over 225 meters (738 feet) in length, the flooding standard of paragraph (a)(1) of this section must be applied, treating the machinery space, taken alone, as a floodable compartment.

(b) When doing the calculations required in paragraph (a) of this section, the following permeabilities must be assumed:

(1) 0.95 in all locations except the machinery space.

(2) 0.85 in the machinery space.

[CGD 79–153, 48 FR 38648, Aug. 25, 1983]

§ 42.20–9 Initial conditions of loading.

When doing the calculations required in §§ 42.20–6(a), 42.20–7(a) and 42.20–8(a), the initial condition of loading before flooding must be assumed to be as specified in this section:

(a) The vessel is assumed to be loaded to its summer load waterline with no trim.

(b) When calculating the vertical center of gravity, the following assumptions apply:

(1) The cargo is assumed to be homogeneous.

(2) Except as specified in paragraph (b)(3) of this section, all cargo compartments are assumed to be fully loaded. This includes compartments intended to be only partially filled. In the case of liquid cargoes, fully loaded means 98 percent full.

(3) If the vessel is intended to operate at its summer load waterline with empty compartments, these empty compartments are assumed to be empty rather than fully loaded if the resulting height of the vertical center of gravity is not less than the height determined in accordance with paragraph (b)(2) of this section.

(4) Fifty percent of the total capacity of all tanks and spaces fitted to contain consumable liquids or stores must be assumed to be distributed to accomplish the following:

(i) Each tank and space fitted to contain consumable liquids or stores must be assumed either completely empty or completely filled.

(ii) The consumables must be distributed so as to produce the greatest possible height above the keel for the center of gravity.

(5) Weights are calculated using the following values for specific gravities:

Salt water—1.025
Fresh water—1.000
Oil fuel—0.950
Diesel oil—0.900
Lube oil—0.900

[CGD 79–153, 48 FR 38648, Aug. 25, 1983]

§ 42.20–10 Free surface.

When doing the calculations required in §§ 42.20–6(a), 42.20–7(a) and 42.20–8(a), the effect of free surface of the following liquids must be included:

(a) For each type of consumable liquid, the maximum free surface of at least one transverse pair of tanks or a single centerline tank must be included. The tank or combination of tanks must be that resulting in the greatest free surface effect.

(b) For cargo liquids, unless the compartment is assumed to be empty as required by § 42.20–9(b)(3), the free surface of those compartments containing liquids is calculated at an angle of heel of not more than 5 degrees.

[CGD 79–153, 48 FR 38649, Aug. 25, 1983]

§ 42.20–11 Extent of damage.

When doing the calculations required by §§ 42.20–6(a), 42.20–7(a) and 42.20–8(a), the following must be assumed:

(a) The vertical extent of damage in all cases must be assumed to be from the baseline upward without limit.

(b) The transverse extent of damage is assumed to be equal to B/5 or 11.5 meters (37.7 feet), whichever is less. The transverse extent is measured inboard from the side of the ship perpendicularly to the center line at the level of the summer load waterline.

(c) If damage of a lesser extent than that specified in paragraph (a) or (b) of this section results in a more severe condition, the lesser extent must be assumed.

(d) The following assumptions apply to the transverse damage specified in paragraph (b) of this section for a stepped or recessed bulkhead:

(1) A transverse watertight bulkhead that has a step or recess located within the transverse extent of assumed damage may be considered intact if the step or recess is not more than 3.05 meters (10 feet) in length.

(2) If a transverse watertight bulkhead has a step or recess of more than 3.05 meters (10 feet) in length, within the transverse extent of assumed damage, the two compartments adjacent to this bulkhead must be considered as flooded.

(3) If within the transverse extent of damage, a transverse bulkhead has a step or recess more than 3.05 meters (10 feet) in length that coincides with the double bottom tank top or the inner boundary of a wing tank, respectively, all adjacent compartments within the transverse extent of assumed damage must be considered to be flooded simultaneously.

(e) If a wing tank has openings into adjacent compartments, the wing tank and adjacent compartments must be considered as one compartment. This provision applies even where these openings are fitted with closing appliances except:

(1) Valves fitted in bulkheads between tanks which are controlled from above the bulkhead deck.

(2) Secured manhole covers fitted with closely spaced bolts.

(f) Only transverse watertight bulkheads that are spaced apart at least $\frac{1}{3}(L)^{\frac{2}{3}}$ or 14.5 meters $(0.495(L)^{\frac{2}{3}}$ or 47.6 feet), whichever is less, may be considered effective. If transverse bulkheads are closer together, then one or more of these bulkheads must be assumed to be non-existent in order to achieve the minimum spacing between bulkheads.

[CGD 79–153, 48 FR 38649, Aug. 25, 1983]

§42.20–12 Conditions of equilibrium.

The following conditions of equilibrium are regarded as satisfactory:

(a) *Downflooding*. The final waterline after flooding, taking into account sinkage, heel, and trim, is below the lower edge of any opening through which progressive flooding can take place. Such openings include air pipes, ventilators, and openings which are closed by means of weathertight doors (even if they comply with §42.15–10) or covers (even if they comply with §42.15–30 or §42.15–45(d)) but may exclude those openings closed by means of:

(1) Manhole covers and flush scuttles which comply with §42.15–40;

(2) Cargo hatch covers which comply with §42.09–5(b);

(3) Hinged watertight doors in an approved position which are secured closed while at sea and so logged; and

(4) Remotely operated sliding watertight doors, and side scuttles of the non-opening type which comply with §42.15–65.

(b) *Progressive flooding*. If pipes, ducts, or tunnels are situated within the assumed extent of damage penetration as defined in §42.20–11 (a) and (b), progressive flooding cannot extend to compartments other than those assumed to be floodable in the calculation for each case of damage.

(c) *Final angle of heel*. The angle of heel due to unsymmetrical flooding does not exceed 15 degrees. If no part of the deck is immersed, an angle of heel of up to 17 degrees may be accepted.

(d) *Metacentric height*. The metacentric height of the damaged vessel, in the upright condition, is positive.

(e) *Residual stability*. Through an angle of 20 degrees beyond its position of equilibrium, the vessel must meet the following conditions:

(1) The righting arm must be positive.

(2) The maximum righting arm must be at least 0.1 meter (4 inches).

(3) The area under the righting arm curve within the 20 degree range must

not be less than 0.0175 meter-radians (0.689 inch-radians).

(4) Each submerged opening must be weathertight (e.g. a vent fitted with a ball check valve).

(f) *Intermediate stages of flooding.* The Commandant is satisfied that the stability is sufficient during intermediate stages of flooding.

[CGD 79–153, 48 FR 38649, Aug. 25, 1983]

§ 42.20–13 Vessels without means of propulsion.

(a) A lighter, barge, or other vessel without independent means of propulsion is assigned a freeboard in accordance with the provisions of this subpart as modified by paragraphs (b), (c), and (d) of this section.

(b) A barge that meets the requirements of § 42.09–5(b) may be assigned Type ''A'' freeboard if the barge does not carry deck cargo.

(c) An unmanned barge is not required to comply with § 42.15–75, § 42.15–80(b), or § 42.20–70.

(d) An unmanned barge that has only small access openings closed by watertight gasketed covers of steel or equivalent material on the freeboard deck, may be assigned a freeboard 25 percent less than that calculated in accordance with this subpart.

[CGD 79–153, 48 FR 38649, Aug. 25, 1983]

§ 42.20–15 Freeboard tables.

(a) *Type ''A'' vessel.* (1) The tabular freeboard for Type ''A'' vessel shall be determined from Table 42.20–15(a)(1):

TABLE 42.20–15(a)(1)—FREEBOARD TABLE FOR TYPE "A" VESSELS

Length of vessel (feet)	Freeboard [1] (inches)
80	8.0
90	8.9
100	9.8
110	10.8
120	11.9
130	13.0
140	14.2
150	15.5
160	16.9
170	18.3
180	19.8
190	21.3
200	22.9
210	24.5
220	26.2
230	27.8
240	29.5
250	31.1

TABLE 42.20–15(a)(1)—FREEBOARD TABLE FOR TYPE "A" VESSELS—Continued

Length of vessel (feet)	Freeboard [1] (inches)
260	32.8
270	34.6
280	36.3
290	38.0
300	39.7
310	41.4
320	43.2
330	45.0
340	46.9
350	48.8
360	50.7
370	52.7
380	54.7
390	56.8
400	58.8
410	60.9
420	62.9
430	65.0
440	67.0
450	69.1
460	71.1
470	73.1
480	75.1
490	77.1
500	79.0
510	80.9
520	82.7
530	84.5
540	86.3
550	88.0
560	89.6
570	91.1
580	92.6
590	94.1
600	95.5
610	96.9
620	98.3
630	99.6
640	100.9
650	102.1
660	103.3
670	104.4
680	105.5
690	106.6
700	107.7
710	108.7
720	109.7
730	110.7
740	111.7
750	112.6
760	113.5
770	114.4
780	115.3
790	116.1
800	117.0
810	117.8
820	118.6
830	119.3
840	120.1
850	120.7
860	121.4
870	122.1
880	122.7
890	123.4
900	124.0
910	124.6
920	125.2
930	125.7
940	126.2
950	126.7

TABLE 42.20–15(a)(1)—FREEBOARD TABLE FOR TYPE "A" VESSELS—Continued

Length of vessel (feet)	Freeboard [1] (inches)
960	127.2
970	127.7
980	128.1
990	128.6
1,000	129.0
1,010	129.4
1,020	129.9
1,030	130.3
1,040	130.7
1,050	131.0
1,060	131.4
1,070	131.7
1,080	132.0
1,090	132.3
1,100	132.6
1,110	132.9
1,120	133.2
1,130	133.5
1,140	133.8
1,150	134.0
1,160	134.3
1,170	134.5
1,180	134.7
1,190	135.0
1,200	135.2
1,200 [2].	

[1] Freeboards at intermediate lengths of vessels shall be obtained by linear interpolation.

[2] Vessels above 1,200 feet in length shall be dealt with by the Commandant.

(b) *Type "B" vessels.* (1) The tabular freeboard for Type "B" vessels shall be determined from Table 42.20–15(b)(1):

TABLE 42.20–15(b)(1)—FREEBOARD TABLE FOR TYPE "B" VESSELS

Length of vessel (feet)	Freeboard [1] (inches)
80	8.0
90	8.9
100	9.8
110	10.8
120	11.9
130	13.0
140	14.2
150	15.5
160	16.9
170	18.3
180	19.8
190	21.3
200	22.9
210	24.7
220	26.6
230	28.5
240	30.4
250	32.4
260	34.4
270	36.5
280	38.7
290	41.0
300	43.3
310	45.7
320	48.2
330	50.7
340	53.2
350	55.7

TABLE 42.20–15(b)(1)—FREEBOARD TABLE FOR TYPE "B" VESSELS—Continued

Length of vessel (feet)	Freeboard [1] (inches)
360	58.2
370	60.7
380	63.2
390	65.7
400	68.2
410	70.7
420	73.2
430	75.7
440	78.2
450	80.7
460	83.1
470	85.6
480	88.1
490	90.6
500	93.1
510	95.6
520	98.1
530	100.6
540	103.0
550	105.4
560	107.7
570	110.0
580	112.3
590	114.6
600	116.8
610	119.0
620	121.1
630	123.2
640	125.3
650	127.3
660	129.3
670	131.3
680	133.3
690	135.3
700	137.1
710	139.0
720	140.9
730	142.7
740	144.5
750	146.3
760	148.1
770	149.8
780	151.5
790	153.2
800	154.8
810	156.4
820	158.0
830	159.6
840	161.2
850	162.8
860	164.3
870	165.9
880	167.4
890	168.9
900	170.4
910	171.8
920	173.3
930	174.7
940	176.1
950	177.5
960	178.9
970	180.3
980	181.7
990	183.1
1,000	184.4
1,010	185.8
1,020	187.2
1,030	188.5
1,040	189.8
1,050	191.0

TABLE 42.20–15(b)(1)—FREEBOARD TABLE FOR TYPE "B" VESSELS—Continued

Length of vessel (feet)	Freeboard [1] (inches)
1,060	192.3
1,070	193.5
1,080	194.8
1,090	196.1
1,100	197.3
1,110	198.6
1,120	199.9
1,130	201.2
1,140	202.3
1,150	203.5
1,160	204.6
1,170	205.8
1,180	206.9
1,190	208.1
1,200	209.3
1,200 [2]	

[1] Freeboards at intermediate lengths of vessel shall be obtained by linear interpolation.
[2] Vessels above 1,200 feet in length shall be dealt with by the Commandant.

[CGFR 68–60, 33 FR 10064, July 12, 1968, as amended by CGFR 68–126, 34 FR 9015, June 5, 1969]

§ 42.20–20 Correction to the freeboard for vessels under 328 feet in length.

(a) The tabular freeboard for a Type ''B'' vessel of between 79 feet and 328 feet in length having enclosed superstructures with an effective length of up to 35 percent of the length of the vessel shall be increased by:

$0.09\ (328 - L)\ [0.35 - (E/L)]$ inches

where:

L=length of vessel in feet.
E=effective length of superstructure in feet as defined in § 42.20–50.

[CGFR 68–60, 33 FR 10064, July 12, 1968]

§ 42.20–25 Correction for block coefficient.

If the block coefficient (Cb) exceeds 0.68, the tabular freeboard specified in § 42.20–15 as modified, if applicable, by §§ 42.20–5 (b) and (d), and 42.20–20(a) must be multiplied by the factor (Cb+0.68)/1.36.

[CGD 79–153, 48 FR 38650, Aug. 25, 1983]

§ 42.20–30 Correction for depth.

(a) Where D exceeds $L/15$ the freeboard shall be increased by $[D-(L/15)]$ R inches, where R is $L/131.2$ at lengths less than 393.6 feet and 3 at 393.6 feet length and above.

(b) Where D is less than $L/15$ no reduction shall be made except in a vessel with an enclosed superstructure covering at least $0.6L$ amidships, with a complete trunk, or combination of detached enclosed superstructures and trunks which extend all fore and aft, where the freeboard shall be reduced at the rate prescribed in paragraph (a) of this section.

(c) Where the height of superstructure or trunk is less than the standard height, the reduction shall be in the ratio of the actual to the standard height as defined in § 42.20–40.

[CGFR 68–60, 33 FR 10064, July 12, 1968]

§ 42.20–35 Correction for position of deck line.

(a) Where the actual depth to the upper edge of the deck line is greater or less than D, the difference between the depths shall be added to or deducted from the freeboard.

[CGFR 68–60, 33 FR 10065, July 12, 1968]

§ 42.20–40 Standard height of superstructure.

(a) The standard height of a superstructure shall be as given in Table 42.20–40(a):

TABLE 42.20–40(a) STANDARD HEIGHTS (IN FEET) [1]

Length (L) (in feet)	Raised quarter deck	All other superstructures
98.5 or less	3.0	5.9
246	3.9	5.9
410 or more	5.9	7.5

[1] The standard heights at intermediate lengths of the vessel shall be obtained by linear interpolation.

[CGFR 68–60, 33 FR 10065, July 12, 1968, as amended by CGFR 68–126, 34 FR 9015, June 5, 1969]

§ 42.20–45 Length of superstructure.

(a) Except as provided in paragraph (b) of this section, the length of a superstructure (S) shall be the mean length of the parts of the superstructure which lie within the length (L).

(b) Where the end bulkhead of an enclosed superstructure extends in a fair convex curve beyond its intersection with the superstructure sides, the length of the superstructure may be increased on the basis of an equivalent

plane bulkhead. This increase shall be two-thirds of the fore and aft extent of curvature. The maximum curvature which may be taken into account in determining this increase is one-half the breadth of the superstructure at the point of intersection of the curved end of the superstructure with its side.

[CGFR 68–60, 33 FR 10065, July 12, 1968, as amended by CGFR 68–126, 34 FR 9015, June 5, 1969]

§ 42.20–50 Effective length of superstructure.

(a) Except as provided for in paragraph (b) of this section the effective length (*E*) of an enclosed superstructure of standard height shall be its length.

(b) In all cases where an enclosed superstructure of standard height is set in from the sides of the vessel as permitted in § 42.13–15(j), the effective length shall be the length modified by the ratio of *b/Bs*,

where:

''*b*'' is the breadth of the superstructure at the middle of its length;

''*Bs*'' is the breadth of the vessel at the middle of the length of the superstructure.

(1) Where a superstructure is set in for a part of its length, this modification shall be applied only to the set in part.

(c) Where the height of an enclosed superstructure is less than the standard height, the effective length shall be its length reduced in the ratio of the actual height to the standard height. Where the height exceeds the standard, no increase shall be made to the effective length of the superstructure.

(d) The effective length of a raised quarter deck if fitted with an intact front bulkhead, shall be its length up to a maximum of 0.6*L*. Where the bulkhead is not intact, the raised quarter deck shall be treated as a poop of less than standard height.

(e) Superstructures which are not enclosed shall have no effective length.

[CGFR 68–60, 33 FR 10065, July 12, 1968]

§ 42.20–55 Trunks.

(a) A trunk or similar structure which does not extend to the sides of the vessel shall be regarded as efficient on the following conditions:

(1) The trunk is at least as strong as a superstructure;

(2) The hatchways are in the trunk deck, and the hatchway coamings and covers comply with the requirements of §§ 42.15–15 to 42.15–30, inclusive, and the width of the trunk deck stringer provides a satisfactory gangway and sufficient lateral stiffness; however, small access openings with watertight covers may be permitted in the freeboard deck;

(3) A permanent working platform fore and aft fitted with guard rails is provided by the trunk deck, or by detached trunks connected to superstructures by efficient permanent gangways;

(4) Ventilators are protected by the trunk by watertight covers or by other equivalent means;

(5) Open rails are fitted on the weather parts of the freeboard deck in way of the trunk for at least half their length;

(6) The machinery casings are protected by the trunk, by a superstructure of at least standard height, or by a deckhouse of the same height and of equivalent strength;

(7) The breadth of the trunk is at least 60 percent of the breadth of the vessel; and,

(8) Where there is no superstructure, the length of the trunk is at least 0.6*L*.

(b) The full length of an efficient trunk reduced in the ratio of its mean breadth to *B* shall be its effective length.

(c) The standard height of a trunk is the standard height of a superstructure other than a raised quarter deck.

(d) Where the height of a trunk is less than the standard height, its effective length shall be reduced in the ratio of the actual to the standard height. Where the height of hatchway coamings on the trunk deck is less than that required under § 42.15–25(a), a reduction from the actual height of trunk shall be made which corresponds to the difference between the actual and required height of coaming.

[CGFR 68–60, 33 FR 10065, July 12, 1968, as amended by CGFR 68–126, 34 FR 9015, June 5, 1969]

§ 42.20–60 Deduction for superstructures and trunks.

(a) Where the effective length of superstructures and trunks is 1.0*L*, the deduction from the freeboard shall be 14 inches at 79 feet length of vessel, 34 inches at 279 feet length, and 42 inches at 400 feet length and above; deductions at intermediate lengths shall be obtained by linear interpolation.

(b) Where the total effective length of superstructures and trunks is less than 1.0*L* the deduction shall be a percentage obtained from Table 42.20–60(b)(1) or Table 42.20–60(b)(2):

TABLE 42.20–60(b)(1)—PERCENTAGE OF DEDUCTION FOR TYPE "A" VESSELS

	Total effective length of superstructures and trunks										
	0	0.1*L*	0.2*L*	0.3*L*	0.4*L*	0.5*L*	0.6*L*	0.7*L*	0.8*L*	0.9*L*	1.0*L*
Percentage of deduction for all types of superstructures[1]	0	7	14	21	31	41	52	63	75.3	87.7	100

[1] Percentages at intermediate lengths of superstructures and trunks shall be obtained by linear interpolation.

TABLE 42.20–60(b)(2)—PERCENTAGE OF DEDUCTION FOR TYPE "B" VESSELS

[*Percentage of deduction*[1]]

	Total effective length of superstructures and trunks											
	Line	0	0.1*L*	0.2*L*	0.3*L*	0.4*L*	0.5*L*	0.6*L*	0.7*L*	0.8*L*	0.9*L*	1.0*L*
Vessels with forecastle and without detached bridge	I	0	5	10	15	23.5	32	46	63	75.3	87.7	100
Vessels with forecasle and detached bridge	II	0	6.3	12.7	19	27.5	36	46	63	75.3	87.7	100

[1] Percentages at intermediate lengths of superstructures and trunks shall be obtained by linear interpolation.

(c) For vessels of Type ''B'':

(1) Where the effective length of a bridge is less than 0.2*L*, the percentages shall be obtained by linear interpolation between lines I and II;

(2) Where the effective length of a forecastle is more than 0.4*L*, the percentages shall be obtained from line II; and,

(3) Where the effective length of a forecastle is less than 0.07*L*, the percentages in Table 42.20–60(b)(2) of this paragraph shall be reduced by:

$$5(0.07L - f)/0.07L$$

L is the length of vessel as defined in § 42.13–15(a),

f is the effective length of the forecastle.

[CGFR 68–60, 33 FR 10065, July 12, 1968, as amended by CGFR 68–126, 34 FR 9015, June 5, 1969]

§ 42.20–65 Sheer.

(a) *General.* (1) The sheer shall be measured from the deck at side to a line of reference drawn parallel to the keel through the sheer line amidships.

(2) In vessels designed with a rake of keel, the sheer shall be measured in relation to a reference line drawn parallel to the design load waterline.

(3) In flush deck vessels and in vessels with detached superstructures the sheer shall be measured at the freeboard deck.

(4) In vessels with topsides of unusual form in which there is a step or break in the topsides, the sheer shall be considered in relation to the equivalent depth amidships.

(5) In vessels with a superstructure of standard height which extends over the whole length of the freeboard deck, the sheer shall be measured at the superstructure deck. Where the height exceeds the standard the least difference (*Z*) between the actual and standard heights shall be added to each end ordinate. Similarly, the intermediate ordinates at distances of $\frac{1}{6}L$ and $\frac{1}{3}L$ from each perpendicular shall be increased by 0.444Z and 0.111Z respectively.

(6) Where the deck of an enclosed superstructure has at least the same sheer as the exposed freeboard deck, the sheer of the enclosed portion of the freeboard deck shall not be taken into account.

(7) Where an enclosed poop or forecastle is of standard height with greater sheer than that of the freeboard deck, or is of more than standard height, an addition to the sheer of the freeboard deck shall be made as provided in paragraph (c)(4) of this section.

(b) *Standard sheer profile.* (1) The ordinates of the standard sheer profile are given in Table 42.20–65(b)(1):

TABLE 42.20–65(b)(1)—STANDARD SHEER PROFILE

[Where *L* is in feet]

	Station	Ordinate (in inches)	Ordinate (in inches)	Factor
After half	After Perpendicular.	0.1	*L*+10	1
	1/6 *L* from A.P	0.0444 ...	*L*+4.44 ...	3
	1/3 *L* from A.P	0.0111 ...	*L*+1.11 ...	3
	Amidships	.....	0	1
Forward half.	Amidships	.....	0	1
	1/3 *L* from F.P	0.0222 ...	*L*+2.22 ...	3
	1/6 *L* from F.P	0.0888 ...	*L*+8.88 ...	3
	Forward Perpendicular.	0.2	*L*+20	1

(c) *Measurement of variation from standard sheer profile.* (1) Where the sheer profile differs from the standard, the four ordinates of each profile in the forward or after half shall be multiplied by the appropriate factors given in the table of ordinates. The difference between the sums of the respective products and those of the standard divided by 8 measures the deficiency or excess of sheer in the forward or after half. The arithmetical mean of the excess or deficiency in the forward and after halves measures the excess or deficiency of sheer.

(2) Where the after half of the sheer has an excess and the forward half of the sheer has a deficiency, no credit shall be allowed for the part in excess and deficiency only shall be measured.

(3) Where the forward half of the sheer profile exceeds the standard, and the after portion of the sheer profile is not less than 75 percent of the standard, credit shall be allowed for the part in excess; where the after part is less than 50 percent of the standard, no credit shall be given for the excess sheer forward. Where the after sheer is between 50 percent and 75 percent of the standard, intermediate allowances may be granted for excess sheer forward.

(4) Where sheer credit is given for a poop or forecastle, the following formula shall be used:

$$s=(y/3)(L'/L)$$

where:

s=sheer credit, to be deducted from the deficiency or added to the excess of sheer.

y=difference between actual and standard height of superstructure at the end ordinate.

L'=mean enclosed length of poop or forecastle up to a maximum length of $0.5L$.

L=length of vessel as defined in § 42.13–15(a).

(i) The formula in this paragraph (c)(4) of this section provides a curve in the form of a parabola tangent to the actual sheer curve at the freeboard deck and intersecting the end ordinate at a point below the superstructure deck a distance equal to the standard height of a superstructure. The superstructure deck shall not be less than standard height above this curve at any point. This curve shall be used in determining the sheer profile for forward and after halves of the vessel.

(d) *Correction for variations from standard sheer profile.* (1) The correction for sheer shall be the deficiency or excess of sheer (see paragraphs (c) (1) to (4) inclusive of this section) multiplied by:

$$0.75-(S/2L)$$

where:

S is the total length of enclosed superstructures.

(e) *Addition for deficiency in sheer.* (1) Where the sheer is less than the standard, the correction for deficiency in sheer (see paragraph (d)(1) of this section) shall be added to the freeboard.

(f) *Deduction for excess sheer.* (1) In vessels where an enclosed superstructure covers $0.1L$ before and $0.1L$ abaft amidships, the correction for excess of sheer as calculated under the provisions of paragraph (d)(1) of this section shall be deducted from the freeboard; in vessels where no enclosed superstructure covers amidships, no deduction shall be made from the freeboard; where an enclosed superstructure covers less than $0.1L$ before and $0.1L$ abaft amidships, the deduction

shall be obtained by linear interpolation. The maximum deduction for excess sheer shall be at the rate of 1½ inches per 100 feet of length.

[CGFR 68–60, 33 FR 10066, July 12, 1968, as amended by CGFR 68–126, 34 FR 9016, June 5, 1969]

§ 42.20–70 Minimum bow height.

(a) The bow height defined as the vertical distance at the forward perpendicular between the waterline corresponding to the assigned summer freeboard and the designed trim and the top of the exposed deck at side shall be not less than:

(1) For vessels below 820 feet in length,

$0.672L[1-(L/1640)][1.36/(C_b+0.68)]$ inches;

where:

L is the length of the vessel in feet.

C_b is the block coefficient which is to be taken as not less than 0.68.

(2) For vessels of 820 feet and above in length,

$275.6[1.36/(C_b+0.68)]$ inches;

where:

C_b is the block coefficient which is to be taken as not less than 0.68.

(b) Where the bow height required in paragraph (a) of this section is obtained by sheer, the sheer shall extend for at least 15 percent of the length of the vessel measured from the forward perpendicular. Where it is obtained by fitting a superstructure, such superstructure shall extend from the stem to a point at least $0.07L$ abaft the forward perpendicular, and it shall comply with the following requirements:

(1) For vessels not over 328 feet in length it shall be enclosed as defined in § 42.13–15(j); and,

(2) For vessels over 328 feet in length it need not comply with § 42.13–15(j) but shall be fitted with closing appliances to the satisfaction of the assigning authority.

(c) Vessels which, to suit exceptional operational requirements, cannot meet the requirements of paragraphs (a) and (b) of this section may be given special consideration by the assigning authority.

[CGFR 68–60, 33 FR 10066, July 12, 1968, as amended by CGFR 68–126, 34 FR 9016, June 5, 1969]

§ 42.20–75 Minimum freeboards.

(a) *Summer freeboard.* (1) The minimum freeboard in summer must be the freeboard derived from the tables in § 42.20–15 as modified by the corrections in §§ 42.20–3 and 42.20–5, as applicable, and §§ 42.20–20, 42.20–25, 42.20–30, 42.20–35, 42.20–60, 42.20–65 and, if applicable, § 42.20–70.

(2) The freeboard in salt water, as calculated in accordance with paragraph (a)(1) of this section, but without the correction for deck line, as provided by § 42.20–35, shall not be less than 2 inches. For vessels having in position 1 hatchways with covers which do not comply with the requirements of §§ 42.15–25(d)(1), 42.15–30, or 42.15–80, the freeboard shall be not less than 6 inches.

(b) *Tropical freeboard.* (1) The minimum tropical freeboard shall be the freeboard obtained by a deduction from the summer freeboard of one forty-eighth of the summer draft measured from the top of the keel to the center of the ring of the load line mark.

(2) The freeboard in salt water, as calculated in accordance with paragraph (b)(1) of this section, but without the correction for deck line, as provided by § 42.20–35, shall not be less than 2 inches. For vessels having in position 1 hatchways with covers which do not comply with the requirements of § 42.15–25(d)(1), § 42.15–30, or § 42.15–80, the freeboard shall be not less than 6 inches.

(c) *Winter freeboard.* (1) The minimum winter freeboard shall be the freeboard obtained by an addition to the summer freeboard of one forty-eighth of summer draft, measured from the top of the keel to the center of the ring of the load line mark.

(d) *Winter North Atlantic freeboard.* (1) The minimum freeboard for vessels of not more than 328 feet in length which enter any part of the North Atlantic defined in § 42.30–35 during the winter seasonal period shall be the winter

freeboard plus 2 inches. For other vessels the winter North Atlantic freeboard shall be the winter freeboard.

(e) *Fresh water freeboard.* (1) The minimum freeboard in fresh water of unit density shall be obtained by deducting from the minimum freeboard in salt water:

($\Delta/40\ T$) inches

where:

Δ=displacement in salt water in tons at the summer load waterline; and,

T=tons per inch immersion in salt water at the summer load waterline.

(2) Where the displacement at the summer load waterline cannot be certified, the deduction shall be one forty-eighth of summer draft, measured from the top of the keel to the center of the ring of the load line mark.

[CGFR 68–60, 33 FR 10066, July 12, 1968, as amended by CGFR 68–126, 34 FR 9016, June 5, 1969; CGD 79–153, 48 FR 38650, Aug. 25, 1983]

Subpart 42.25—Special Requirements for Vessels Assigned Timber Freeboards

§ 42.25–1 Application of this subpart.

(a) The provisions of this subpart 42.25 apply only to vessels to which timber load lines are assigned.

[CGFR 68–60, 33 FR 10067, July 12, 1968]

§ 42.25–5 Definitions of terms used in this subpart.

(a) *Timber deck cargo.* The term ''timber deck cargo'' means a cargo of timber carried on an uncovered part of a freeboard or superstructure deck. The term does not include wood pulp or similar cargo.

(b) *Timber load line.* A timber deck cargo may be regarded as giving a vessel a certain additional buoyancy and a greater degree of protection against the sea. For that reason, vessels carrying a timber deck cargo may be granted a reduction of freeboard calculated according to the provisions of § 42.25–20 and marked on the vessel's side in accordance with the provisions of § 42.13–30(c) and (d). However, in order that such special freeboard may be granted and used, the timber deck cargo shall comply with certain conditions which are laid down in § 42.25–15, and the vessel itself shall also comply with certain conditions relating to its construction which are set out in § 42.25–10.

[CGFR 68–60, 33 FR 10067, July 12, 1968, as amended by CGFR 68–126, 34 FR 9016, June 5, 1969]

§ 42.25–10 Construction of vessel.

(a) *Superstructure.* (1) Vessels, shall have a forecastle of at least standard height and a length of at least 0.07L. In addition, if the vessel is less than 328 feet in length, a poop of at least standard height, or a raised quarter deck with either a deckhouse or a strong steel hood of at least the same total height shall be fitted aft.

(b) *Double bottom tanks.* (1) Double bottom tanks where fitted within the midship half length of the vessel shall have adequate watertight longitudinal subdivision.

(c) *Bulwarks.* (1) The vessel shall be fitted either with permanent bulwarks at least 39½ inches in height, specially stiffened on the upper edge and supported by strong bulwark stays attached to the deck and provided with necessary freeing ports, or with efficient rails of the same height and of specially strong construction.

[CGFR 68–60, 33 FR 10067, July 12, 1968, as amended by CGFR 68–126, 34 FR 9016, June 5, 1969]

§ 42.25–15 Stowage.

(a) *General.* (1) Openings in the weather deck over which cargo is stowed shall be securely closed and battened down. The ventilators shall be efficiently protected.

(2) Timber deck cargo shall extend over at least the entire available length which is the total length of the well or wells between superstructures. Where there is no limiting superstructure at the after end, the timber shall extend at least to the after end of the aftermost hatchway. The timber shall be stowed as solidly as possible, to at least the standard height of a superstructure other than a raised quarter deck.

(3) On a vessel within a seasonal winter zone in winter, the height of the deck cargo above the weather deck shall not exceed one-third of the extreme breadth of the vessel.

(4) The timber deck cargo shall be compactly stowed, lashed, and secured. It shall not interfere in any way with the navigation and necessary work of the vessel.

(b) *Upright.* (1) Uprights, when required by the nature of the timber, shall be of adequate strength considering the breadth of the vessel; the spacing shall be suitable for the length and character of timber carried, but shall not exceed 9.8 feet. Strong angles or metal sockets or equally efficient means shall be provided for securing the uprights.

(c) *Lashings.* (1) Timber deck cargo shall be efficiently secured throughout its length by independent overall lashings spaced not more than 9.8 feet apart. Eye plates for these lashings shall be efficiently attached to the sheer strake or to the deck stringer plate at intervals of not more than 9.8 feet. The distance from an end bulkhead of a superstructure to the first eye plate shall be not more than 6.6 feet. Eye plates and lashings shall be provided 23½ inches and 4.9 feet from the ends of timber deck cargoes where there is no bulkhead.

(2) Lashings shall be not less than ¾-inch close link chain or flexible wire rope of equivalent strength, fitted with sliphooks and turnbuckles, which shall be accessible at all times. Wire rope lashings shall have a short length of long link chain to permit the length of lashings to be regulated.

(3) When timber is in lengths less than 11.8 feet the spacing of the lashings shall be reduced or other suitable provisions made to suit the length of timber.

(4) All fittings required for securing the lashings shall be of strength corresponding to the length of the lashings.

(d) *Stability.* (1) Provision shall be made for a safe margin of stability at all stages of the voyage, regard being given to additions of weight, such as those due to absorption of water and icing and to losses of weight such as those due to consumption of fuel and stores.

(e) *Protection of crew, access to machinery spaces, etc.* (1) In addition to the requirements of § 42.15–75(e) guardrails or life lines spaced not more than 13 inches apart vertically shall be provided on each side of the deck cargo to a height of at least 39½ inches above the cargo.

(f) *Steering arrangements.* (1) Steering arrangements shall be effectively protected from damage by cargo and, as far as practicable, shall be accessible. Efficient provision, shall be made for steering in the event of a breakdown in the main steering arrangements.

[CGFR 68–60, 33 FR 10067, July 12, 1968, as amended by CGFR 68–126, 34 FR 9016, June 5, 1969]

§ 42.25–20 Computation for freeboard.

(a) The minimum summer freeboards must be computed in accordance with §§ 42.20–5 (a) and (b), 42.20–13, 42.20–15, 42.20–20, 42.20–25, 42.20–30, 42.20–35, 42.20–60, and 42.20–65, except that § 42.20–60 is modified by substituting the percentages in Table 42.25–20(a) for those given in § 42.20–60:

TABLE 42.25–20(a)—PERCENTAGE OF DEDUCTION FOR SUPERSTRUCTURE

[Total Effective Length of Superstructure]

	0	0.1*L*	0.2*L*	0.3*L*	0.4*L*	0.5*L*	0.6*L*	0.7*L*	0.8*L*	0.9*L*	1.0*L*
Percentage of deduction for all types of superstructure [1]	20	31	42	53	64	70	76	82	88	94	100

[1] Percentages at intermediate lengths of superstructures shall be obtained by linear interpolation.

(b) The winter timber freeboard shall be obtained by adding to the summer timber freeboard one thirty-sixth of the molded summer timber draft.

(c) The winter North Atlantic timber freeboard shall be the same as the winter North Atlantic freeboard prescribed in § 42.20–75(d)(1).

(d) The tropical timber freeboard shall be obtained by deducting from the summer timber freeboard one forty-eighth of the molded summer timber draft.

(e) The fresh water timber freeboard shall be computed in accordance with § 42.20–75(e) (1) or (2) based on the summer timber load waterline.

[CGFR 68–60, 33 FR 10067, July 12, 1968, as amended by CGFR 68–126, 34 FR 9016, June 5, 1969; CGD 79–153, 48 FR 38650, Aug. 25, 1983]

Subpart 42.30—Zones, Areas, and Seasonal Periods

§ 42.30–1 Basis.

(a) The zones and areas in this subpart are, in general, based on the following criteria:

(1) Summer: not more than 10 percent winds of force 8 Beaufort (34 knots) or more.

(2) Tropical: not more than 1 percent winds of force 8 Beaufort (34 knots) or more. Not more than one tropical storm in 10 years in an area of 5° square in any 1 separate calendar month.

(b) In certain special areas, for practical reasons, some degree of relaxation has been found acceptable.

(c) A chart is attached to the International Convention on Load Lines, 1966, which illustrates the zones and areas defined in this Convention and in this subpart.

[CGFR 68–60, 33 FR 10068, July 12, 1968, as amended by CGFR 68–126, 34 FR 9016, June 5, 1969]

§ 42.30–5 Northern Winter Seasonal Zones and area.

(a) *North Atlantic Winter Seasonal Zones I and II.* (1) The North Atlantic Winter Seasonal Zone I lies within the meridian of longitude 50° W. from the coast of Greenland to latitude 45° N.; thence the parallel of latitude 45° N. to longitude 15° W.; thence the meridian of longitude 15° W. to latitude 60° N.; thence the parallel of latitude 60° N. to the Greenwich Meridian, thence this meridian northwards.

(i) Seasonal periods:

Winter: October 16 to April 15.
Summer: April 16 to October 15.

(2) The North Atlantic Winter Seasonal Zone II lies within the meridian of longitude 68°30′ W. from the coast of the United States to latitude 40° N.; thence the rhumb line to the point latitude 36° N., longitude 73° W.; thence the parallel of latitude 36° N. to longitude 25° W.; and thence the rhumb line to Cape Torinana. Excluded from this zone are the North Atlantic Winter Seasonal Zone I and the Baltic Sea bounded by the parallel of the latitude of The Skaw in the Skagerrak.

(i) Seasonal periods:

Winter: November 1 to March 31.
Summer: April 1 to October 31.

(b) *North Atlantic Winter Seasonal Area.* (1) The boundary of the North Atlantic Winter Seasonal Area is the meridian of longitude 68°30′ W. from the coast of the United States to latitude 40° N.; thence the rhumb line to the southernmost intersection of the meridian of longitude 61° W. with the coast of Canada; and thence the east coasts of Canada and the United States.

(i) Seasonal periods:

(*a*) For vessels over 328 feet in length:

Winter: December 16 to February 15.
Summer: February 16 to December 15.

(*b*) For vessels of 328 feet and under in length:

Winter: November 1 to March 31.
Summer: April 1 to October 31.

(c) *North Pacific Winter Seasonal Zone.* The southern boundary of the North Pacific Winter Seasonal Zone is the parallel of latitude 50° N. from the east coast of the Union of Soviet Socialist Republics, to the west coast of Sakhalin; thence the west coast of Sakhalin to the southern extremity of Cape Kril'on: thence the rhumb line to Wakkanai, Hokkaido, Japan; thence the east and south coasts of Hokkaido to longitude 145° E., thence the meridian of longitude 145° E. to latitude 35° N., thence the parallel of latitude 35° N. to longitude 150° W. and thence the rhumb line to the southern extremity of Dall Island, Alaska.

(1) Seasonal periods:

Winter: October 16 to April 15.
Summer: April 16 to October 15.

[CGFR 68–60, 33 FR 10068, July 12, 1968, as amended by CGFR 68–126, 34 FR 9016, June 5, 1969]

§ 42.30–10 Southern Winter Seasonal Zone.

(a) The northern boundary of the Southern Winter Seasonal Zone is the

rhumb line from the east coast of the American continent at Cape Tres Puntas to the point latitude 34° S., longitude 50° W.; thence the parallel of latitude 34° S. to longitude 17° E.; thence the rhumb line to the point latitude 35°10′ S., longitude 20° E.; thence the rhumb line to the point latitude 34° S. longitude 28° E.; thence along the rhumb line to the point latitude 35°30′ S., longitude 118° E.; thence the rhumb line to Cape Grim on the northwest coast of Tasmania; thence along the north and east coasts of Tasmania to the southernmost point of Bruny Island; thence the rhumb line to Black Rock Point on Stewart Island; thence the rhumb line to the point latitude 47° S., longitude 170° E.; thence along the rhumb line to the point latitude 33° S., longitude 170° W.; and thence the parallel of latitude 33° S. to the west coast of the American continent.

(1) Valparaiso is to be considered as being on the boundary line of the Summer and the Winter Seasonal Zones.

(2) Seasonal periods:

Winter: April 16 to October 15.
Summer: October 16 to April 15.

[CGFR 68–60, 33 FR 10068, July 12, 1968]

§ 42.30–15 Tropical Zone.

(a) *Northern boundary of the Tropical Zone.* The northern boundary of the Tropical Zone is the parallel of latitude 13° N. from the east coast of the American continent to longitude 60° W.; thence the rhumb line to a point in latitude 10° N., longitude 58° W.; thence the parallel of latitude 10° N. to longitude 20° W.; thence the meridian of longitude 20° W. to latitude 30° N.; thence the parallel of latitude 30° N. to the west coast of Africa; from the east coast of Africa the parallel of latitude 8° N. to longitude 70° E.; thence the meridian of longitude 70° E. to latitude 13° N.; thence the parallel of latitude 13° N. to the west coast of India; thence around the south coast of India to latitude 10°30′ N. on the east coast of India; thence the rhumb line to a point in latitude 9° N., longitude 82° E.; thence the meridian of longitude 82° E. to latitude 8° N.; thence the parallel of latitude 8° N. to the west coast of Malaysia; thence the coast of Southeast Asia to the east coast of Vietnam at latitude 10° N.; thence the parallel of latitude 10° N. to longitude 145° E.; thence the meridian of longitude 145° E. to latitude 13° N.; and thence the parallel of latitude 13° N. to the west coast of the American continent.

(1) Saigon is to be considered as being on the boundary line of the Tropical Zone and the Seasonal Tropical Area.

(b) *Southern boundary of the Tropical Zone.* The southern boundary of the Tropical Zone is the rhumb line from the Port of Santos, Brazil, to the point where the meridian of longitude 40° W. intersects the Tropic of Capricorn; thence the Tropic of Capricorn to the west coast of Africa; from the east coast of Africa the parallel of latitude 20° S. to the west coast of Madagascar; thence the west and north coasts of Madagascar to longitude 50° E.; thence the meridian of longitude 50° E. to latitude 10° S.; thence the parallel of latitude 10° S. to longitude 98° E.; thence the rhumb line to Port Darwin, Australia; thence the coasts of Australia and Wessel Island eastwards to Cape Wessel; thence the parallel of latitude 11° S. to the west side of Cape York; from the east side of Cape York the parallel of latitude 11° S. to longitude 150° W.; thence the rhumb line to the point latitude 26° S., longitude 75° W.; and thence the rhumb line to the west coast of the American continent at latitude 30° S.

(1) Coquimbo and Santos are to be considered as being on the boundary line of the Tropical and Summer Zones.

(c) *Areas to be included in the Tropical Zone.* The following areas are to be treated as included in the Tropical Zone:

(1) The Suez Canal, the Red Sea, and the Gulf of Aden, from Port Said to the meridian of longitude 45° E.

(i) Aden and Berbera are to be considered as being on the boundary line of the Tropical Zone and the Seasonal Tropical Area.

(2) The Persian Gulf of the meridian of longitude 59° E.

(3) The area bounded by the parallel of latitude 22° S. from the east coast of Australia to the Great Barrier Reef, thence the Great Barrier Reef to latitude 11° S. The northern boundary of

the area is the southern boundary of the Tropical Zone.

[CGFR 68–60, 33 FR 10068, July 12, 1968]

§ 42.30–20 Seasonal Tropical Areas.

The following are Seasonal Tropical Areas:

(a) *In the North Atlantic.* It is an area bounded on the north by the rhumb line from Cape Catoche, Yucatan, to Cape San Antonio, Cuba, the north coast of Cuba to latitude 20° N., thence the parallel of latitude 20° N. to longitude 20° W.; on the west by the coast of the American continent; on the south and east by the northern boundary of the Tropical Zone.

(1) Seasonal periods:

Tropical: November 1 to July 15.
Summer: July 16 to October 31.

(b) *In the Arabian Sea.* An area bounded on the west by the coast of Africa, the meridian of longitude 45° E. in the Gulf of Aden, the coast of South Arabia and the meridian of longitude 59° E. in the Gulf of Oman; on the north and east by the coasts of Pakistan and India; on the south by the northern boundary of the Tropical Zone.

(1) Seasonal periods:

Tropical: September 1 to May 31.
Summer: June 1 to August 31.

(c) *In the Bay of Bengal.* The Bay of Bengal north of the northern boundary of the Tropical Zone.

(1) Seasonal periods:

Tropical: December 1 to April 30.
Summer: May 1 to November 30.

(d) *In the South Indian Ocean.* (1) An area bounded on the north and west by the southern boundary of the Tropical Zone and the east coast of Madagascar; on the south by the parallel of latitude 20° S.; on the east by the rhumb line from a point in latitude 20° S., longitude 50° E., to a point in latitude 15° S., longitude 51°30′ E., and thence by the meridian of longitude 51°30′ E. to latitude 10° S.

(i) Seasonal periods:

Tropical: April 1 to November 30.
Summer: December 1 to March 31.

(2) An area bounded on the north by the southern boundary of the Tropical Zone; on the east by the coast of Australia; on the south by the parallel of latitude 15° S. from longitude 51°30′ E., to longitude 120° E. and thence the meridian of longitude 120° E. to the coast of Australia; on the west by the meridian of longitude 51°30′ E.

(i) Seasonal periods:

Tropical: May 1 to November 30.
Summer: December 1 to April 30.

(e) *In the China Sea.* An area bounded on the west and north by the coasts of Vietnam and China from latitude 10° N. to Hong Kong; on the east by the rhumb line from Hong Kong to the Port of Sual (Luzon Island), and the west coasts of the Islands of Luzon, Samar, and Leyte to latitude 10° N.; on the south by the parallel of latitude 10° N.

(1) Hong Kong and Sual are to be considered as being on the boundary of the Seasonal Tropical Area and Summer Zone.

(2) Seasonal periods:

Tropical: January 21 to April 30.
Summer: May 1 to January 20.

(f) *In the North Pacific.* (1) An area bounded on the north by the parallel of latitude 25° N.; on the west by the meridian of longitude 160° E.; on the south by the parallel of latitude 13° N.; on the east by the meridian of longitude 130° W.

(i) Seasonal periods:

Tropical: April 1 to October 31.
Summer: November 1 to March 31.

(2) An area bounded on the north and east by the west coast of the American continent; on the west by the meridian of longitude 123° W. from the coast of the American continent to latitude 33° N., longitude 123° W.; to the point latitude 13° N., longitude 105° W.; on the south by the parallel of latitude 13° N.

(i) Seasonal periods:

Tropical: March 1 to June 30, and November 1 to November 30.
Summer: July 1 to October 31, and December 1 to February 28/29.

(g) *In the South Pacific.* (1) The Gulf of Carpentaria south of latitude 11° S.

(i) Seasonal periods:

Tropical: April 1 to November 30.
Summer: December 1 to March 31.

(2) An area bounded on the north and east by the southern boundary of the Tropical Zone; on the south by the

Tropic of Capricorn from the east coast of Australia to longitude 150° W.; thence by the meridian of longitude 150° W. to latitude 20° S. and thence by the parallel of latitude 20° S. to the point where it intersects the southern boundary of the Tropical Zone; on the west by the boundaries of the area within the Great Barrier Reef included in the Tropical Zone, and by the east coast of Australia.

(i) Seasonal periods:

Tropical: April 1 to November 30.
Summer: December 1 to March 31.

[CGFR 68–60, 33 FR 10068, July 12, 1968, as amended by CGFR 68–126, 34 FR 9016, June 5, 1969]

§ 42.30–25 Summer Zones.

(a) The remaining areas constitute the Summer Zones.

(1) However, for vessels of 328 feet and under in length, the area bounded on the north and west by the east coast of the United States; on the east by the meridian of longitude 68°30′ W. from the coast of the United States to latitude 40° N. and thence by the rhumb line to the point latitude 36° N., longitude 73° W.; on the south by the parallel of latitude 36° N.; is a Winter Seasonal Area.

(i) Seasonal periods:

Winter: November 1 to March 31.
Summer: April 1 to October 31.

[CGFR 68–60, 33 FR 10069, July 12, 1968, as amended by CGFR 68–126, 34 FR 9016, June 5, 1969]

§ 42.30–30 Enclosed seas.

(a) *Baltic Sea*. This sea bounded by the parallel of latitude of The Skaw in the Skagerrak is included in the Summer Zones.

(1) However, for vessels of 328 feet and under in length, it is a Winter Seasonal Area.

(i) Seasonal periods:

Winter: November 1 to March 31.
Summer: April 1 to October 31.

(b) *Black Sea*. This sea is included in the Summer Zones.

(1) However, for vessels of 328 feet and under in length, the area north of latitude 44° N. is a Winter Seasonal Area.

(i) Seasonal periods:

Winter: December 1 to February 28/29.
Summer: March 1 to November 30.

(c) *Mediterranean*. This sea is included in the Summer Zones.

(1) However, for vessels of 328 feet and under in length, the area bounded on the north and west by the coasts of France and Spain and the meridian of longitude 3° E. from the coast of Spain to latitude 40° N.; on the south by the parallel of latitude 40° N. from longitude 3° E. to the west coast of Sardinia; on the east by the west and north coasts of Sardinia from latitude 40° N. to longitude 9° E., thence by the meridian of longitude 9° E. to the south coast of Corsica, thence by the west and north coasts of Corsica to longitude 9° E. and thence by the rhumb line to Cape Sicie; is a Winter Seasonal Area.

(i) Seasonal periods:

Winter: December 16 to March 15.
Summer: March 16 to December 15.

(d) *Sea of Japan*. This sea south of the parallel of latitude 50° N. is included in the Summer Zones.

(1) However, for vessels of 382 feet and under in length, the area between the parallel of latitude 50° N. and the rhumb line from the east coast of Korea at latitude 38° N. to the west coast of Hokkaido, Japan, at latitude 43°12′ N., is a Winter Seasonal Area.

(i) Seasonal periods:

Winter: December 1 to February 28/29.
Summer: March 1 to November 30.

[CGFR 68–60, 33 FR 10069, July 12, 1968, as amended by CGFR 68–126, 34 FR 9016, June 5, 1969]

§ 42.30–35 The Winter North Atlantic Load Line.

(a) The part of the North Atlantic referred to in § 42.20–75(d)(1) comprises:

(1) That part of the North Atlantic Winter Seasonal Zone II which lies between the meridians of 15° W. and 50° W.; and

(2) The whole of the North Atlantic Winter Seasonal Zone I, the Shetland Islands to be considered as being on the boundary.

[CGFR 68–60, 33 FR 10069, July 12, 1968]

Subpart 42.50—Load Line Certificates—Model Forms

§ 42.50–1 General.

(a) The provisions of this subpart set forth the requirements for the text of the various load line certificates issued to vessels complying with the applicable requirements in this part. See §§ 42.07–35 and 42.07–40 for requirements regarding load line assigning and issuing authorities. See § 42.07–45 for requirements regarding load line certificates, their text and arrangement.

(b) The 1966 international load line certificate and exemption certificate shall be the same as set forth in this subpart in the model Forms A1, A2, A3, and E1, except for the following authorized variations which shall also apply to model Forms B, C1, C2, and C3:

(1) As indicated in § 42.13–30, the freeboards and load line marks which are not applicable to a specific vessel need not be entered on the certificate issued.

(2) The provisions of Note 3 on the front of the certificate forms (other than Model E1) may be changed to correctly describe the situation applicable to the vessel concerning information and instructions furnished the master about loading and ballasting the vessel to provide a guide as to stability under various conditions and as to avoid unacceptable stresses in the vessel's structure.

(c) In the load line certificate the assigning and issuing authority shall set forth its full official designation; i.e., its legal name, address of home office, and reference to the authorization from the Commandant where an assigning and issuing authority other than the American Bureau of Shipping is designated.

[CGFR 68–126, 34 FR 9017, June 5, 1969]

§ 42.50–5 International load line certificates.

(a) The various forms of certificates certifying to the correctness of the load line marks assigned under the regulations in this subchapter and/or certain exemptions therefrom for U.S.-flag vessels engaged in foreign voyages, or engaged in coastwise or intercoastal voyages (provided such vessels qualify to engage in foreign voyages without restriction), are A1, A2, A3, and E1. The detailed application of these forms is as specified in § 42.07–45 (e), (f), and (h).

(b) The text and arrangement of the printed portions of Form *A1* (printed front and back) are as follows:

INTERNATIONAL LOAD LINE CERTIFICATE (1966)

[Form *A1*]

(Official seal of issuing authority.)
(Certificate No. _____)

Issued under the provisions of the International Convention on Load Lines, 1966, under the authority of the Government of the United States of America, and the Commandant, U.S. Coast Guard:

By

(Insert full official designation of issuing authority)

---

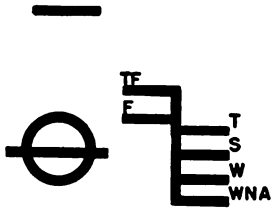
and duly authorized for assigning purposes under the provisions of the Convention.

Name of ship	Official number or distinctive letters	Port of registry	Length (*L*) as defined in Article 2(8) i.e., 46 CFR 42.13–15
Freeboard assigned as:[1]	A new ship	Type of ship:[1]	Type ''A''.
	An existing ship		Type ''B''.
			Type ''B'' with reduced freeboard.
			Type ''B'' with increased freeboard.
	FREEBOARD FROM DECK LINE		LOAD LINE
Tropical	____ (inches)	(T)	____ (inches) above (S).
Summer	____ (inches)	(S)	Upper edge of line at level of center of ring.
Winter	____ (inches)	(W)	____ (inches) below (S).

Name of ship	Official number or distinctive letters	Port of registry	Length (*L*) as defined in Article 2(8) i.e., 46 CFR 42.13–15
Winter (North Atlantic)	___ (inches)	(WNA)	___ (inches) below (S).
Allowance for fresh water for all freeboards			___ (inches).

(All measurements are to upper edge of the respective horizontal lines)

The upper edge of the deck line from which these freeboards are measured is ____ inches above or below the top of the ____ deck at side; i.e., freeboard[1] deck.



Date of initial or periodical survey _____

This is to certify that this ship has been surveyed and that the freeboards have been assigned and load lines shown above have been marked in accordance with the International Convention on Load Lines, 1966.

This certificate is valid until _____,[2] subject to annual surveys in accordance with Article 14(1)(c) of the Convention, and endorsement thereof on the reverse side of the certificate.

Issued at _____ (Place of issue of certificate), _____, 19____ (Date of issue)

_____

(Signature of official issuing the certificate)

[Seal of issuing authority]

The undersigned declares that he is duly authorized by the said Government to issue this certificate.

(Signature)

NOTES

1. When a ship departs from a port situated on a river or inland waters, deeper loading shall be permitted corresponding to the weight of fuel and all other materials required for consumption between the point of departure and the sea.

2. When a ship is in fresh water of unit density, the appropriate load line may be submerged by the amount of the fresh water allowance shown above. Where the density is other than unity, an allowance shall be made proportional to the difference between 1.025 and the actual density.

3. It is the owner's responsibility to furnish the master with information and instructions for loading and ballasting this vessel to provide guidance as to stability of the vessel under varying conditions of service and to avoid unacceptable stresses in the vessel's structure.

[1]The issuing authority is authorized to delete or change words whenever it is inapplicable to a specific vessel and to arrange wording so appropriate word insertions may be made, which accurately describe the facts.

[2]At the expiration of this certificate, applicable reissuance should be obtained in accordance with the Load Line Regulations.

(REVERSE SIDE OF CERTIFICATE)

ANNUAL SURVEYS

This is to certify that at an annual survey required by Article 14(1)(c) of the Convention, this ship was found to comply with the relevant provisions of the Convention.

Place ..... Date .....

(Signature and seal of issuing authority)

Place ..... Date .....

(Signature and seal of issuing authority)

Place ..... Date .....

(Signature and seal of issuing authority)

Place ..... Date .....

(Signature and seal of issuing authority)

EXTENSION OF LOAD LINE CERTIFICATE

The provisions of the Convention being fully complied with by this ship, the validity of this certificate is, in accordance with Article 19(2) of the Convention, extended until.

Place ..... Date .....

(Signature and seal of issuing authority)

NOTES

4. The Winter North Atlantic Load Line applies only to vessels of 328 feet in length or less, which enter any part of the North Atlantic Ocean during the winter months as defined by the Load Line Regulations in 46 CFR 42.30–5 and 42.30–35. The periods during which the other seasonal load lines apply in different parts of the world are as stated in the Load Line Regulations in 46 CFR 42.30–5 to 42.30–30, inclusive.

5. The Load Line Certificate will be canceled by the Commandant, U.S. Coast Guard, if:

(a) The annual surveys have not been carried out within 3 months either way of each anniversary of the certificate date.

(b) The certificate is not endorsed to show that the ship has been surveyed as indicated in (a).

(c) Material alterations have been made to the hull or superstructure of the vessel, such as would necessitate the assignment of an increased freeboard.

(d) The fittings and appliances for the protection of the openings, guardrails, freeing ports, or the means of access to the crew's quarters have not been maintained in as effective a condition as they were when the certificate was issued.

(e) The structural strength of the ship is lowered to such an extent that the ship is unsafe.

6. When this certificate has expired or has been canceled, it must be delivered to the issuing authority.

(c) The text and arrangement of the printed portion of Form *A2* shall be identical with the information on the face and reverse sides of Form *A1* certificate in paragraph (b) of this section except for the identification of model form, description of the ''Freeboard from deck line,'' the ''Load Line,'' and the illustration of load line marks, which shall be as follows:

INTERNATIONAL LOAD LINE CERTIFICATE (1966)

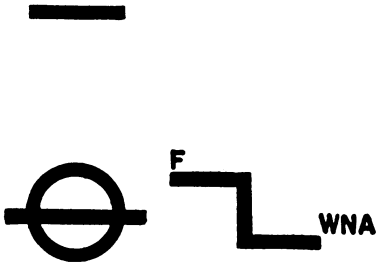
[Form *A2*]

* * * * * * *

	FREEBOARD FROM DECK LINE		LOAD LINE
Tropical Summer	____ (inches)	.....	Upper edge of line at level of center of ring.
Winter Winter—North Atlantic ..	____ (inches)	(WNA)	Upper edge of line ____ (inches) below upper edge at level of center of ring.
Allowance for fresh water for all freeboards			____ (inches).

(All measurements are to upper edge of the respective horizontal lines)

The upper edge of the deck line from which these freeboards are measured is ____ inches above or below the top of the _____ deck at side; i.e., freeboard[1] deck.



* * * * * * *

[1]The issuing authority is authorized to delete or change words whenever it is inapplicable to a specific vessel and to arrange wording so appropriate word insertions may be made, which accurately describe the facts.

(d) The text and arrangement of the printed portion of Form *A3* shall be identical with the information on the face and reverse sides of Form *A1* certificate in paragraph (b) of this section except for the identification of model form, description of the ''Freeboard from deck line,'' the ''Load Line,'' and the illustration of load line marks, which shall be as follows:

INTERNATIONAL LOAD LINE CERTIFICATE (1966)

[Form *A3*]

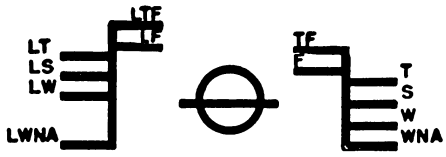
* * * * * * *

The timber freeboards given in this certificate are applicable only when this ship carries a timber deck cargo and complies with special requirements of the Load Line Regulations regarding timber deck cargoes.

	FREEBOARD FROM DECK LINE		LOAD LINE
Tropical	____ (inches)	(T)	____ (inches) above (S).
Summer	____ (inches)	(S)	Upper edge of line at level of center of ring.
Winter	____ (inches)	(W)	____ (inches) below (S).
Winter—North Atlantic	____ (inches)	(WNA)	____ (inches) below (S)
Timber—tropical	____ (inches)	(LT)	____ (inches) above (LS).
Timber—summer	____ (inches)	(LS)	____ (inches) above (S).
Timber—winter	____ (inches)	(LW)	____ (inches) below (LS).
Timber—winter—North Atlantic.	____ (inches)	(LWNA)	____ (inches) below (LS).
Allowance for fresh water for all freeboards other than timber			____ (inches).
Allowance for fresh water for all timber freeboards			____ (inches).

(All measurements are to upper edge of the respective horizontal lines)

The upper edge of the deck line from which these freeboards are measured is ____ inches above or below the top of the _____ deck at side; i.e., freeboard[1] deck.



* * * * * * *

[1] The issuing authority is authorized to delete or change words whenever it is inapplicable to a specific vessel and to arrange wording so appropriate word insertions may be made, which accurately describe the facts.

(e) The text and arrangement of the printed portions of Form E1 are as follows:

INTERNATIONAL LOAD LINE EXEMPTION CERTIFICATE

[Form *E1*]

(Official seal of issuing authority.)
(Certificate No. ____)
Issued under the provisions of the International Convention on Load Lines, 1966, under the authority of the Government of the United States of America, and the Commandant U.S. Coast Guard:
By _____

(Insert full official designation of issuing authority)

and duly authorized for assigning and exemption purposes under the provisions of the Convention.

Name of ship	Official numbers of distinctive letters	Port of registry

This is to certify that the above-mentioned ship is exempted from the provisions of the 1966 Convention, under the authority conferred by Article 6(2),[1] Article 6(4),[1] of the Convention referred to above and that this ship has been surveyed accordingly.
The provisions of the Convention from which the ship is exempted under Article 6(2) are:

The voyage for which exemption is granted under Article 6(4) is:
From: _____
To: _____
Conditions, if any, on which the exemption is granted under either Article 6(2) or Article 6(4):

This certificate is valid until _____,[2] subject, where appropriate, to annual surveys in accordance with Article 14(1)(c) of the Convention, and endorsement thereof on the reverse side of the certificate.

Issued at

(Place of issue of certificate)

(Date of issue)

(Signature of official issuing the certificate)

[Seal of issuing authority]

The undersigned declares that he is duly authorized by the said Government to issue this certificate.

(Signature)

[1] The issuing authority is authorized to delete whichever reference is inapplicable.
[2] At the expiration of this certificate, applicable reissuance should be obtained in accordance with the Load Line Regulations, if permitted.

(Reverse side of exemption certificate)

ANNUAL SURVEYS

This is to certify that this ship continues to comply with the conditions under which this exemption was granted.

Place ..... Date .....

(Signature and seal of issuing authority)

Place ..... Date .....

(Signature and seal of issuing authority)

Place ..... Date .....

(Signature and seal of issuing authority)

Place ..... Date .....

(Signature and seal of issuing authority)

EXTENSION OF LOAD LINE CERTIFICATE

This ship continues to comply with the conditions under which this exemption was granted and the validity of this certificate is, in accordance with Article 19(4)(a) of the Convention, extended until.

Place ..... Date .....

(Signature and seal of issuing authority)

[CGFR 68–60, 33 FR 10070, July 12, 1968, as amended by CGFR 68–126, 34 FR 9017, June 5, 1969]

§ 42.50–10 Load line certificates for nonadherent foreign flag vessels.

(a) The form of load line certificate certifying to the correctness of the load line marks assigned under the regulations in this subchapter to nonadherent foreign flag vessels as specified in § 42.07–45(e)(2) is:

(1) Form B for general use. The period of validity shall be as expressed in § 42.09–20(c).

(b) The text and arrangement of the printed portion of Form B shall be identical with the information on the face and reverse sides of Form A1 certificate in § 42.50–5(b) except for title of certificate, model form, the first paragraph, and the wording of the certificate for issuance and revalidation, which shall be as follows:

LOAD LINE CERTIFICATE

(Form *B*)

(Official seal of issuing authority.)
(Certificate No. ____)
Issued under the authority of the Commandant, U.S. Coast Guard, United States of America, under the provisions of the Load Line Act of March 2, 1929, as amended (46 U.S.C. 85–85g), and the Load Line Regulations in 46 CFR part 42:
By _____

(Insert full official designation of issuing authority)

and duly authorized for assigning purposes under the provisions of the Load Line Act of March 2, 1929, as amended.

* * * * * * *

This is to certify that this ship has been surveyed and the freeboards have been assigned and load lines shown above have been marked upon the vessel in manner and location as required by the Load Line Regulations of the Commandant, U.S. Coast Guard, in 46 CFR part 42.

This certificate remains in force until _____,[2] subject to annual revalidation in accordance with the Load Line Regulations, and endorsement thereof on the reverse side of this certificate.

Issued at _____ (Place of issue of certificate), _____, 19____
(Date of issue)

(Signature of official issuing the certificate)

[Seal of issuing authority]

* * * * * * *

[2] Expiration date is not to exceed 5 years from original date of issue of this certificate. At expiration applicable reissuance of this certificate should be obtained in accordance with the Load Line Regulations.

* * * * * * *

(Reverse Side of Certificate)

ANNUAL REVALIDATION OF CERTIFICATE

This is to certify that the provisions of the Load Line Regulations of the Commandant, U.S. Coast Guard, are fully complied with by the condition of this ship on the dates indicated, and in each case this certificate is revalidated for a 1 year interval as follows:

(1) Until.
Place ..... Date.
(Signature and seal of issuing authority)

(1) Until.
Place ..... Date.
(Signature and seal of issuing authority)

(1) Until.
Place ..... Date.
(Signature and seal of issuing authority)

(1) Until.
Place ..... Date.
(Signature and seal of issuing authority)

[CGFR 68–126, 34 FR 9017, June 5, 1969]

§ 42.50–15 Coastwise load line certificates for U.S.-flag vessels.

(a) The forms of the coastwise load line certificate, other than for special service which are provided for in part 44 of this subchapter, certifying to the correctness of the load line marks assigned under the regulations in this part are C1, C2 and C3. The detailed application of these forms is as specified in § 42.07–45(e).

(b) Space shall be provided on the face of each of the coastwise load line certificates so that there may be entered thereon a record of the restrictions applicable to the vessel, if any.

(c) The text and arrangement of the printed portions of Form *C1* are as follows:

COASTWISE LOAD LINE CERTIFICATE

[Form *C1*]

(Official seal of issuing authority.)

(Certificate No. ____)

Issued under the authority of the Commandant, U.S. Coast Guard, under the provisions of the Coastwise Load Line Act, 1935, as amended (46 U.S.C. 88–88g), and the Load Line Regulations in 46 CFR part 42:

By _____

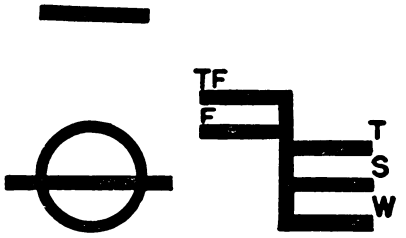
(Insert full official designation of issuing authority)

and duly authorized for assigning purposes under the provisions of this law for vessels engaging in coastwise and/or intercoastal voyages.

Name of ship	Official number or distinctive letters	Port or registry	Length (L) as defined in 46 CFR 42.13–15
Freeboard assigned as:[1] ..	A new ship.	Type of ship:[1]	Type ''A''.
	An existing ship.		Type ''B''.
			Type ''B'' with reduced freeboard.
			Type ''B'' with increased freeboard.
		FREEBOARD FROM DECK LINE	LOAD LINE
Tropical	____ (inches)	(T)	____ (inches) above (S).
Summer	____ (inches)	(S)	____ Upper edge of line at level of center of ring.
Winter	____ (inches)	(W)	____ (inches) below (S).
Allowance for fresh water for all freeboards			____ (inches)

(All measurements are to upper edge of the respective horizontal lines)

The upper edge of the deck line from which these freeboards are measured is ____ inches above or below the top of the _____ deck at side; i.e., freeboard[1] deck.



* * * * * * *

Date of initial or periodical survey _____

The following is a record of the restrictions applicable to the above named ship:

(List restrictions. If none, insert ''None.'')

This is to certify that this ship has been surveyed and that the freeboards have been assigned and load lines shown above have been marked in accordance with the Commandant, U.S. Coast Guard, Coastwise Load Line Regulations in 46 CFR parts 42 to 46, inclusive as applicable.

This certificate remains in force until _____,[2] subject to annual surveys in accordance with applicable Load Line Regulations, and endorsement thereof on the reverse side of the certificate.

Issued at _____

(Place of issue of certificate) (Date of issue)

By

(Signature of official issuing the certificate)

[Seal of issuing authority]

NOTES

1. When a ship departs from a port situated on a river or inland waters, deeper loading shall be permitted corresponding to the weight of fuel and all other materials required for consumption between the point of departure and the sea.

2. When a ship is in fresh water of unit density the appropriate load line may be submerged by the amount of the fresh water allowance shown above. Where the density is other than unity, an allowance shall be made proportional to the difference between 1.025 and the actual density.

3. It is the owner's responsibility to furnish the master with information and instructions for loading and ballasting this vessel to provide guidance as to stability of the vessel under varying conditions of service and to avoid unacceptable stresses in the vessel's structure.

[1] The issuing authority is authorized to delete or change words inapplicable to a specific vessel and to arrange wording so appropriate word insertions may be made, which accurately describe the facts.

[2] At the expiration of this certificate, applicable reissuance should be obtained in accordance with the Load Line Regulations.

(Reverse side of Coastwise Load Line Certificate)

ANNUAL SURVEYS

This is to certify that this ship has been surveyed on the dates indicated to determine in each case whether this certificate should remain in force for an additional 1 year and the survey has been completed to my satisfaction.

(1).	Signature of Surveyor	Place	Date
(2).	Signature of Surveyor	Place	Date
(3).	Signature of Surveyor	Place	Date
(4).	Signature of Surveyor	Place	Date

EXTENSION OF LOAD LINE CERTIFICATE

The provisions of the Coastwise Load Line Regulations of the Commandant, U.S. Coast Guard, being fully complied with by this ship, this certificate is extended under the authority of 46 CFR 42.07–45 and 42.09–15 until.

Place ..... Date ....

....

(Name of issuing authority and signature of Surveyor)

NOTES

4. The periods and areas during which the seasonal load lines apply are as stated in the Load Line Regulations in 46 CFR Subpart 42.30, as appropriate.

5. This Coastwise Load Line Certificate will be canceled by the Commandant, U.S. Coast Guard, if:

(a) The annual surveys have not been carried out within three months either way of each anniversary of the certificate date.

(b) The certificate is not endorsed to show that the ship has been surveyed as indicated in (a).

(c) Material alterations have been made to the hull or superstructure of the vessel, such as would necessitate the assignment of an increased freeboard.

(d) The fittings and appliances for the protection of the openings, guardrails, freeing ports, or the means of access to the crew's quarters have not been maintained in as effective a condition as they were when the certificate was issued.

(e) The structural strength of the ship is lowered to such an extent that the ship is unsafe.

6. When this certificate has expired or has been canceled, it must be delivered to the issuing authority.

* * * * * * *

(d) The text and arrangement of the printed portion of Form *C2* shall be identical with the information on the face and revese sides of Form *C1* certificate in paragraph (c) of this section except for the identification of model form, description of the ''Freeboard from deck line'', the ''Load Line'', and the illustration of load line marks, which shall be as follows:

COASTWISE LOAD LINE CERTIFICATE

[Form *C2*]

* * * * * * *

	FREEBOARD FROM DECK LINE	LOAD LINE
Tropical	____ (inches)	Upper edge of line at level
Summer	.....do	center of ring.
Winter	.....do	Do.
Allowance for fresh water for all freeboards		____ (inches).

(All measurements are to upper edge of the respective horizontal lines)

The upper edge of the deck line from which these freeboards are measured is ____ inches above or below the top of the _____ deck at side; i.e., freeboard[1] deck.

* * * * * * *

(e) The text and arrangement of the printed portion of Form *C3* shall be identical with the information on the face and reverse sides of Form *C1* certificate in paragraph (c) of this section except for the identification of model form, description of the ''Freeboard from deck line,'' the ''Load Line,'' and the illustration of load line marks, which shall be as follows:

COASTWISE LOAD LINE CERTIFICATE

[Form *C3*]

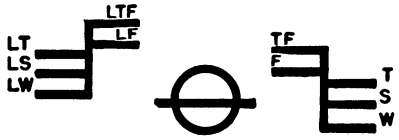
* * * * * * *

The timber freeboards given in this certificate are applicable only when this ship carries a timber deck cargo and complies with the special requirements of the Load Line Regulations regarding timber deck cargoes.

	FREEBOARD FROM DECK LINE	LOAD LINE	
Tropical	____ (inches)	(T)	____ (inches) above (S).
Summer	____ (inches)	(S)	Upper edge of line at level of center of ring.
Winter	____ (inches)	(W)	____ (inches) below (S).
Timber—tropical	____ (inches)	(LT)	____ (inches) above (LS).
Timber—summer	____ (inches)	(LS)	____ (inches) above (S).
Timber—winter	____ (inches)	(LW)	____ (inches) below (LS).
Allowance for fresh water for all freeboards other than timber			____ (inches).
Allowance for fresh water for all timber freeboards			____ (inches).

(All measurements are to upper edge of the respective horizontal lines)

The upper edge of the deck line from which these freeboards are measured is ____ inches above or below the top of the _____ deck at side; i.e., freeboard[1] deck.



* * * * * * *

[1]The issuing authority is authorized to delete or change words inapplicable to a specific vessel and to arrange wording so appropriate word insertions may be made, which accurately describe the facts.

[CGFR 68–60, 33 FR 10073, July 12, 1968, as amended by CGFR 68–126, 34 FR 9018, June 5, 1969]

PART 43 [RESERVED]

PART 44—SPECIAL SERVICE LIMITED DOMESTIC VOYAGES

Subpart A—Administration

Sec.

Subpart B—Rules for Assigning Special Service Load Lines

Subpart C—Rules for Assigning Working Freeboards to Hopper Dredges

AUTHORITY: 46 U.S.C. 5101–5116; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGFR 65–50, 30 FR 16755, Dec. 30, 1965, unless otherwise noted.

Subpart A—Administration

§ 44.01–1 Establishment of load lines for special services.

(a) Load lines are established for steam colliers, tugs, barges, and self-propelled barges engaged in special services in conformity with regulations in this part.

(b) Load lines for steam colliers, barges, and self-propelled barges engaged on specially limited coastwise voyages as described in § 44.01–12 shall be established pursuant to the regulations in this part.

(c) Variance for tugs is not permitted.

[CGFR 65–50, 30 FR 16755, Dec. 30, 1965, as amended by USCG–1998–4442, 63 FR 52190, Sept. 30, 1998]

§ 44.01–5 Administration; special service.

(a) The administrative provisions of §§ 42.01–1 to 42.11–20 inclusive of this subchapter, relating to vessels engaged in foreign and coastwise voyages, where applicable, shall apply to vessels subject to this part except as modified in paragraph (b) of this section.

(b) Application for the assignment of load lines under this part for the types of vessels described in § 44.01–1 shall be made in writing to the American Bureau of Shipping unless another society has been specifically approved by the Commandant as a load line assigning authority. In the latter case application shall be made to the society so approved. Applications shall state the following information:

(1) Name of vessel and official number.

(2) Type of vessel (steam collier, barge, or self-propelled barge).

(3) Date keel was laid.

(4) Normal sea speed of vessel.

(5) Limits of voyage for which approval is requested.

(6) Normal maximum distance offshore in course of voyage.

(7) Length of voyage in days and nautical miles.

(8) Statement of weather conditions to be expected.

(9) Cargo to be carried.

(10) Whether vessel is to be operated manned or unmanned.

[CGFR 65–50, 30 FR 16755, Dec. 30, 1965, as amended by CGFR 68–60, 33 FR 10076, July 12, 1968]

§ 44.01–10 Approval by Commandant, U.S. Coast Guard, of special service.

(a) Subject to the conditions contained in this part, the Commandant, U.S. Coast Guard, has determined that load lines at variance from the position fixed by the International Convention on Load Lines, 1966, but not above the actual line of safety, may be assigned steam colliers, barges, or self-propelled barges (separately by class) for certain specifically limited coastwise voyages between ports of the continental United States or between islands of a group over which the United States has jurisdiction.

[CGFR 65–50, 30 FR 16755, Dec. 30, 1965, as amended by CGFR 68–60, 33 FR 10076, July 12, 1968]

§ 44.01–11 Assignment and marking load lines; special service.

(a) The assignment and marking of special service load lines and certifications thereof shall be in accordance with this part to the satisfaction of the American Bureau of Shipping. The load line certificate shall define the voyage limits and seasonal restrictions governing the validity of the load lines.

§ 44.01–12 Voyage limits; special service.

(a) Special service load lines may be assigned for operation not more than a specified limited distance offshore which shall not exceed 20 nautical miles. The offshore distance shall be measured from the coastline except where a line of inland waters has been otherwise established.

(b) For continental United States ports, special service load lines may be issued for operation between but not to exceed the extreme port limits specified below, or for operation between intermediate ports within the extreme limits specified:

(1) Central and Northern Atlantic Coast—From Norfolk, Virginia, to Eastport, Maine.

(2) Southeast Atlantic Coast—from Key West, Florida, to Jacksonville, Florida, except that the special service load line is not valid for manned vessels during the hurricane season, i.e., July 1st to November 15th, both dates inclusive, unless the vessel is operated in accordance with a Coast Guard approved heavy weather plan.

(3) Gulf of Mexico Coast—from the mouth of the Rio Grande River, Texas, to Key West, Florida, except that the special service load line is not valid for manned vessels during the hurricane season, i.e., July 1st to November 15th, both dates inclusive, unless the vessel is operated in accordance with a Coast Guard approved heavy weather plan.

(4) Pacific Coast—From San Francisco, California, to San Diego, California.

(c) Assignment of special service load lines for voyage limits between the islands of a group over which the United States has jurisdiction shall be made only upon authorization by the Commandant, U.S. Coast Guard, after submittal to him of the information called for by § 44.01–5(b).

[CGFR 65–50, 30 FR 16755, Dec. 30, 1965, as amended by CGD 79–142, 45 FR 57402, Aug. 28, 1980]

§ 44.01–13 Heavy weather plan.

(a) Each heavy weather plan under § 44.01–12(b) must be prepared by the vessel owner or operator and approved by the cognizant Officer in Charge, Marine Inspection. Approval of a heavy weather plan is limited to the current hurricane season.

(b) The cognizant Officer in Charge, Marine Inspection, is—

(1) The Officer in Charge, Marine Inspection, within whose area the work site is located for a vessel that will be operating in a limited geographical area; or

(2) The Officer in Charge, Marine Inspection, within whose area the point of departure is located for a transiting vessel.

(c) The required content of the heavy weather plan is determined on a case-by-case basis by the cognizant Officer in Charge, Marine Inspection, based on knowledge of the local conditions. The heavy weather plan may contain weather radio frequencies and time schedules for seeking a harbor of safe refuge. A single heavy weather plan may be accepted for more than one vessel operating at a single work site or on a single route.

(d) The vessel owner or operator must place a copy of the heavy weather plan on each vessel to which it applies and ensure that it remains there throughout the hurricane season.

[CGD 79–142, 45 FR 57402, Aug. 28, 1980]

§ 44.01–15 Special service certificate.

(a) The use of the special service load line certificate issued under this part is limited to voyages only as described in the certificate. If the vessel engages on any voyage not contemplated by the certificate where a load line is required, the load line prescribed by part 42 of this subchapter shall govern.

(b) Vessels engaged on special services in the coastwise trade and the interisland trade will be certificated on the form shown in § 44.05–35.

[CGFR 65–50, 30 FR 16755, Dec. 30, 1965, as amended by CGFR 68–60, 33 FR 10076, July 12, 1968]

§ 44.01–20 New and existing vessels; special service.

(a) A new vessel marked with load lines for special service on a coastwise or inter-island voyage is a vessel whose keel was laid on or after September 28, 1937. An existing vessel is one whose keel was laid before that date.

Subpart B—Rules for Assigning Special Service Load Lines

§ 44.05–1 General.

(a) The load line regulations in this part are complementary to those in part 42 or part 45 (Great Lakes load line regulations) of this subchapter, as reference is made thereto.

[CGFR 65–50, 30 FR 16755, Dec. 30, 1965, as amended by CGFR 68–60, 33 FR 10076, July 12, 1968]

§ 44.05–5 Definitions.

(a) A steam collier is a vessel mechanically propelled, and specially designed for the carriage of coal in bulk.

(b) A towed barge is a vessel without sufficient means of self-propulsion and which requires to be towed.

(c) A self-propelled barge is a vessel mechanically propelled of the type specially designed for use in limited coastwise and Great Lakes service and capable of transiting interconnecting canals.

§ 44.05–10 Load line markings.

(a) The load line marks on the vessel's sides must be in accordance with § 42.13–25(a) of this subchapter, except seasonal markings such as ''Winter North Atlantic'' which are not applicable to the voyage are omitted.

(b) In the case of vessels which engage in special services on coastwise voyages and voyages on the Great Lakes, the marks on the vessel's sides are to be in accordance with Figure 44.05–10(b), except that the lines marked ''SW'' and ''MS'' shall be used only where applicable.

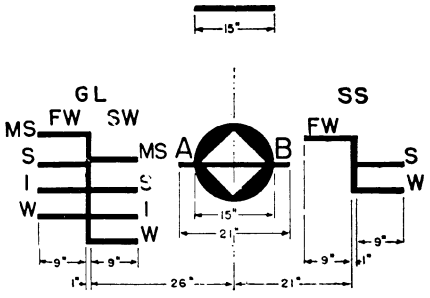


FIGURE 44.05–10(B)

(c) The load lines aft of the combined disk and diamond will be applicable for voyages on the Great Lakes and those on the forward side will be applicable to limited coastwise voyages. The summer line on the ocean will correspond to the summer line on the Lakes and the winter line on the ocean will correspond to the intermediate line on the Lakes.

(d) In the case of vessels which operate both on special service coastwise voyages and on unlimited coastwise voyages, the marks on the ship's sides are to be in accordance with figure 44.05–10 (d). The load lines aft of the disk will be applicable to voyages in special service coastwise or inter-island voyages and those on the forward side will be applicable to unlimited coastwise voyages. (A vessel marked for both special service and unlimited coastwise voyages and furnished with a load line certificate on the international form shall, when entering the foreign trade, arrange that the load line markings are in accord with the vessel's international load line certificate by the elimination of the marks aft of the disk.)

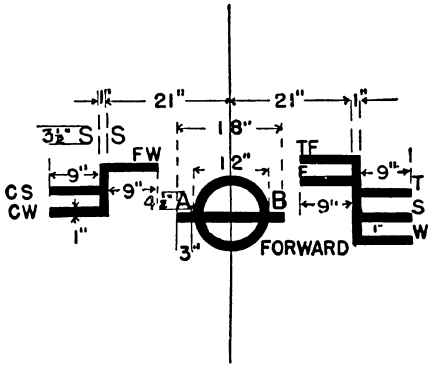


FIGURE 45.05–10(D)

[CGFR 65–50, 30 FR 16755, Dec. 30, 1965, as amended by CGD 80–120, 47 FR 5723, Feb. 8, 1982; USCG–2004–18884, 69 FR 58345, Sept. 30, 2004]

§ 44.05–15 Existing vessels.

(a) In assigning load lines to an existing vessel the provisions of the regulations in this part shall be complied with in principle and detail insofar as is reasonable and practicable, having regard to the proven efficacy of existing arrangements for a special service voyage, and having particular regard to the provision of sufficient means for the protection and safety of the crew.

(b) Where it is neither reasonable nor practicable to comply with this part in its entirety, the assigning authority will, in each case, report to the Commandant, U.S. Coast Guard, the specific matters in which the vessel is deficient with such recommendations as may seem desirable. Upon the receipt of this report the Commandant, U.S. Coast Guard, shall determine such addition to the freeboard as will, in the judgment of the Commandant, U.S.

Coast Guard, make the vessel as safe as if it had fully complied with this part.

§ 44.05–20 Conditions of assignment.

(a) *Steam colliers.* The conditions of assignment for steam colliers shall be in accordance with the requirements of part 42 of this subchapter, except that in the case of steam colliers constructed with bulwarks, the freeing port may be of a practically continuous slot type, located as low as possible, the clear area of the slot to be not less than 20 percent of the superficial area of the unpierced bulwarks. If, due to sheer, or other conditions, the assigning authority considers that extra local provision should be made for freeing decks of water, the slots are to be located so as to have maximum efficacy.

(b) *Towed barges.* The conditions of assignment for towed cargo barges where the cargo is carried under deck shall be in accordance with §§ 45.10–5 to 45.10–100 of this subchapter. In the case of tank barges and cargo barges carrying cargo only on deck, compliance will also be required with the supplementary conditions of §§ 45.20–1 to 45.20–70 of this subchapter. In the case of cargo barges of the open type, assignment will be limited to barges in unmanned operation and the construction of the vessel must be such as to satisfy the assigning authority that no unusual hazards will be experienced.

(c) *Self-propelled barges.* The conditions of assignment for self-propelled cargo barges carrying cargo under decks shall be in accordance with the provisions of §§ 45.10–5 to 45.10–100 of this subchapter. In the case of self-propelled tank barges and self-propelled cargo barges carrying cargo only on deck, compliance will also be required with the supplementary conditions of §§ 45.20–1 to 45.20–70 of this subchapter.

[CGFR 65–50, 30 FR 16755, Dec. 30, 1965, as amended by CGFR 68–60, 33 FR 10076, July 12, 1968]

§ 44.05–25 Freeboards.

(a) *General.* (1) When the assigning authority is satisfied that the requirements of this part as applicable to the type of vessel under consideration are complied with the freeboards will be computed as described in this section.

(2) The requirements in §§ 42.09–1 and 42.09–10 that relate to the assignment of freeboards and to stability are applicable to each vessel subject to the requirements in this part.

(3) The assigning authority that assigns a vessel subject to the requirements in this part a freeboard under part 45 of this chapter shall do so in accordance with the requirements in effect as of October 1, 1972.

(b) *Steam colliers.* Steam colliers that have constructional features similar to those of a tanker which afford extra invulnerability against the sea may be assigned a reduction of freeboard from that determined under part 42 of this subchapter. The amount of such reduction shall be determined by the assigning authority, in relation to the freeboard assigned to tankers, having regard to the degree of compliance with the supplementary conditions of assignment laid down for these ships, but without regard to the degree of subdivision provided. The freeboard assigned to such a vessel shall in no case be less than would be assigned the vessel as a tanker, as determined under part 42 of this subchapter.

(c) *Towed cargo barges with cargo under deck.* The freeboard is to be computed under §§ 45.15–1 to 45.15–97 of this subchapter. The fresh water and seasonal markings where applicable are to be determined under part 42 of this subchapter.

(d) *Towed cargo barges with cargo only on deck.* The freeboard for barges of this type is to be computed in accordance with the requirements of §§ 45.20–1 to 45.20–70 of this subchapter. The fresh water and seasonal markings where applicable are to be the same as determined under part 42 of this subchapter.

(e) *Towed cargo barges of the open type.* The load line shall be placed where, in the judgment of the assigning authority, the draft will be such that no unusual hazard will be experienced. In general, drafts assigned will be such that the barge will remain afloat with a reasonable freeboard after flooding of the net available open space.

(f) *Towed tank barges.* The freeboard is to be computed in accordance with §§ 45.20–1 to 45.20–70 of this subchapter. The fresh water and seasonal markings

where applicable are to be determined under part 42 of this subchapter.

(g) *Self-propelled cargo barges.* The freeboard is to be computed under §§ 45.15–1 to 45.20–15 of this subchapter. The fresh water and seasonal markings where applicable are to be determined under part 42 of this subchapter.

(h) *Self-propelled tank barges.* The freeboard is to be computed in accordance with §§ 45.20–1 to 45.20–70 of this subchapter. The fresh water and seasonal markings where applicable are to be determined under part 42 of this subchapter.

[CGFR 65–50, 30 FR 17655, Dec. 30, 1965, as amended by CGFR 68–60, 33 FR 10077, July 12, 1968; CGD 73–49R, 38 FR 12290, May 10, 1973]

§ 44.05–30 Load line certificate.

(a) The load line certificates for a special service coastwise or special inter-island voyage shall be issued in addition to any other applicable load line certificates and shall be on the form shown in § 44.05–35.

§ 44.05–35 Form of load line certificate.

(a) Where no other Load Line certificate is issued:

LOAD LINE CERTIFICATE FOR A SPECIAL SERVICE COASTWISE OR INTER-ISLAND VOYAGE

Issued under the authority of the Commandant, U.S. Coast Guard, United States of America, under the provisions of the Coastwise Load Line Act of August 27, 1935, as amended.

[SEAL]

Issued by _____

Certificate No. _____

This certificate is valid only for coastwise or inter-island voyages that are between the limits of _____ and _____ provided the vessel is engaged solely in the trade stated herein.

Ship _____

Official No. _____

Port of registry _____

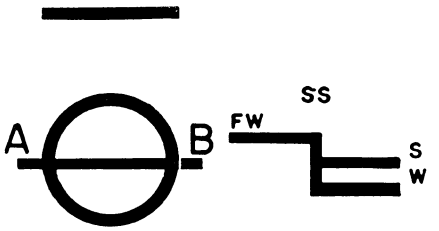
Trade of vessel _____

Gross tonnage _____

Freeboard from deck line	Load line
Tropical (T)	Above (S).
Summer (S)	Upper edge of line through center of disk.
Winter (W)	Below (S).

*Allowance for fresh water for all freeboards (except on the Great Lakes) _____

The upper edge of the deck line from which these freeboards are measured is _____ inches above the top of the___deck at side.



This is to certify that this ship has been surveyed and the freeboards and load lines shown above have been found to be correctly marked upon the vessel in manner and location as provided by the Load Line Regulations of the Commandant, U.S. Coast Guard, applicable to vessels engaged on this special service voyage.

**This certificate remains in force until _____. Issued at _____on the _____ day of _____, 19___.

(Here follows the signature or seal and description of the assigning authority)

NOTES: (1) In accordance with the Load Line Regulations, the disk or diamond and the lines must be permanently marked by center punch marks or cutting.

(2) The load line assignment given by this certificate necessarily assumes that the nature and stowage of cargo, balast, etc., are such as to secure sufficient stability for the vessel. Accordingly, it is the owner's responsibility to furnish the Master of the vessel with stability information and instructions when this is necessary to maintenance of sufficient stability.

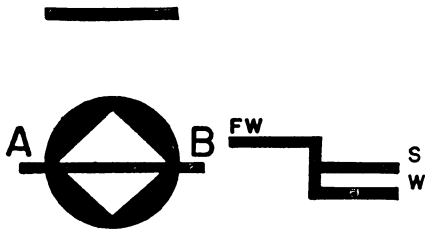
(On the reverse side of the load line certificate, the provision for annual inspection endorsement and for renewal of the certificate is to be the same as for vessels engaged in the foreign trade.)

(b) Where the Special Service Load Line Certificate is issued in addition to

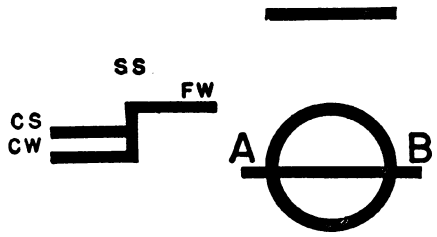
*Where seagoing steamers navigate a river or inland water, deeper loading is permitted corresponding to the weight of fuel, etc., required for consumption between the point of departure and the open sea.

**Upon the expiration of the certificate renewal must be obtained as provided by the Load Line Regulations and the certificate so endorsed. Endorsement should also be made in the spaces provided on the occasion of each annual inspection required by the Load Line Regulations.

a Great Lakes Load Line Certificate, the wording of the Special Service Load Line Certificate is to be identical to that given in paragraph (a) of this section, but the markings indicated in the form shall be replaced by the following markings:



(c) Where the Special Service Load Line Certificate is issued in addition to an Unlimited Coastwise or International Load Line Certificate, the wording of the Special Service Load Line Certificate is to be identical to that given in paragraph (a) of this section, but the markings indicated in the form shall be replaced by the following markings:



Subpart C—Rules for Assigning Working Freeboards to Hopper Dredges

SOURCE: CGD 76–080, 54 FR 36977, Sept. 6, 1989, unless otherwise noted.

§ 44.300 Applicability.

This subpart applies to each self-propelled hopper dredge—

(a) For which a working freeboard assignment is desired after January 1, 1990; and

(b) That operates with a working freeboard assigned under this subpart.

§ 44.310 Definitions.

Hopper dredge means a self-propelled dredge with an open hold or hopper in the hull of the dredge that receives dredged material.

Working freeboard means one-half the distance between the mark of the load line assigned under this subchapter and the freeboard deck.

§ 44.320 Submission of plans and calculations.

To request a working freeboard, calculations, plans, and stability information necessary to demonstrate compliance with this subpart must be submitted to the:

(a) Commanding Officer, U.S. Coast Guard Marine Safety Center 1900 Half Street, SW., Suite 1000, Room 525, Washington, DC 20024 by visitors, or transmitted by mail to Commanding Officer, U.S. Coast Guard Marine Safety Center, 2100 2nd St. SW., Stop 7102, Washington, DC 20593–7102, in a written or electronic format. Information for submitting the VSP electronically can be found at *http://www.uscg.mil/HQ/MSC*; or

(b) American Bureau of Shipping, ABS Plaza, 16855 Northchase Drive, Houston, TX 77060.

[CGD 76–080, 54 FR 36977, Sept. 6, 1989, as amended by USCG–1998–4442, 63 FR 52190, Sept. 30, 1998; USCG–2000–7790, 65 FR 58459, Sept. 29, 2000; USCG–2007–29018, 72 FR 53965, Sept. 21, 2007; USCG–2009–0702, 74 FR 49228, Sept. 25, 2009]

§ 44.330 Obtaining working freeboards for hopper dredges.

A hopper dredge may be issued a working freeboard on a limited service domestic voyage load line certificate or a Great Lakes load line certificate if the following are met:

(a) The hopper dredge structure must have adequate strength for any draft up to the working freeboard draft. Dredges built and maintained in conformity with the requirements of a classification society recognized by the Commandant usually meet this requirement.

(b) The hopper dredge must—

(1) Meet subpart I of part 174 of this chapter; and

(2) Have on its bridge remote draft indicators that:

(i) Show the fore, aft, and mean draft of the dredge at all times while the dredge is operating; and

(ii) Have each indicator marked with the assigned freeboard and the working freeboard.

§ 44.340 Operating restrictions.

(a) Each hopper dredge assigned a working freeboard may be operated at drafts from the normal freeboard to the working freeboard if the—

(1) Seas are not more than 10 feet;

(2) Winds are not more than 35 knots;

(3) Area of operation is not more than 20 nautical miles (37 kilometers) from the mouth of a harbor of safe refuge; and

(4) Specific gravity of the spoil carried is not more than the highest specific gravity of spoil used in the stability calculations required by subchapter S of this chapter.

(b) The Assigning Authority designates on the face of the dredge's load line certificate—

(1) Each restriction contained in paragraph (a)(1) through (a)(3) of this section; and

(2) The maximum specific gravity of the spoils allowed to be carried.

PART 45—GREAT LAKES LOAD LINES

Subpart A—General

Subpart B—Load Line Marks

Subpart C—Freeboards

Subpart D—Conditions of Assignment

Subpart E—Unmanned River Barges on Lake Michigan Routes

AUTHORITY: 46 U.S.C. 5104, 5108; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGD 73–49R, 38 FR 12290, May 10, 1973, unless otherwise noted.

Subpart A—General

§ 45.1 Purpose.

This part prescribes requirements for assignment of freeboards, issuance of loadline certificates, and marking of loadlines for service on the Great Lakes of North America.

[CGD 73–49R, 38 FR 12290, May 10, 1973, as amended by USCG–1998–4442, 63 FR 52190, Sept. 30, 1998]

§ 45.3 Definitions.

As used in this part:

(a) *Length* (*L*) means 96 percent of the total length on a waterline at 85 percent of the least moulded depth measured from the top of the keel or the length from the foreside of the stem to the axis of the rudder stock on that waterline, if that is greater. In ships designed with a rake of keel the waterline on which this length is measured must be parallel to the designed waterline.

(b) *Perpendiculars* means the forward and after perpendiculars at the forward and after ends of the length (L). The forward perpendicular coincides with the foreside of the stem on the waterline on which the length is measured.

(c) *Amidships* means the middle of the length (L).

(d) *Breadth* unless expressly provided otherwise, means the maximum breadth of the ship, measured amidships to the moulded line of the frame in a ship with a metal shell and to the outer surface of the hull in a ship with a shell of any other material.

(e) *Moulded Depth* means the vertical distance measured amidships from the top of the keel to the top of the freeboard deck beam at side except that—

(1) In vessels of other than metal construction, the distance is measured from the lower edge of the keel rabbet;

(2) Where the form at the lower part of the midship section is of a hollow character, or where thick garboards are fitted, the distance is measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel;

(3) In ships having rounded gunwales, this distance is measured to the point of intersection of the moulded lines of the deck and side, the lines extending as though the gunwale were of angular design; and

(4) Where the freeboard deck is stepped and the raised part of the deck extends over the point at which the moulded depth is to be determined, the distance is measured to a line of reference extending from the lower part of the deck along a line parallel with the raised part.

(f) *Depth for Freeboard* (*D*) means—

(1) Moulded depth amidships plus the thickness of the stringer plate with no allowance for sheathing; and

(2) In a vessel having a rounded gunwale with a radius greater than 4 percent of the breadth (B) or having topsides of unsual form, the depth for freeboard (D) of a vessel having a midship section with vertical topsides and with the same round of beam and area of topside section equal to that provided by the actual midship section.

(g) *Freeboard* means the distance measured vertically downwards amidships from the upper edge of the deck line to the upper edge of the related load line.

(h) *Freeboard Deck* means, normally, the uppermost complete deck exposed to weather and sea that has permanent means of closing all openings in the weather part thereof and below which all openings in the sides of the ship are fitted with permanent means of watertight closings except that—

(1) In a ship having a discontinuous freeboard deck, the lowest line of the exposed deck and the continuation of that line parallel to the upper part of the deck is the freeboard deck.

(2) At the option of the owner and subject to the approval of the Commandant a lower deck may be designated as the freeboard deck, if it is a complete and permanent deck continuous in a fore and aft direction at least between the machinery space and peak bulkheads and continuous athwartships;

(3) When this lower deck is stepped the lowest line of the deck and the continuation of that line parallel to the upper part of the deck is taken as the freeboard deck.

(i) *Superstructure* means a deck structure on the freeboard deck, extending from side to side of the ship or with the side plating not being inboard of the shell plating more than 4 percent of the breadth (B). A raised quarterdeck is a superstructure.

(j) *Enclosed superstructure* means a superstructure with enclosing bulkheads.

(k) *Height* of a superstructure means the least vertical height measured at side from the top of the superstructure deck beams to the top of the freeboard deck beams.

(l) *Length of a superstructure* (*S*) means the mean length of the part of the superstructure which extends to the sides of the vessel and lies within the length (L).

(m) *Flush deck ship* means a ship that has no superstructure on the freeboard deck.

(n) *Weathertight* means that in any sea conditions water will not penetrate into the ship.

(o) *Watertight* means designed to withstand a static head of water.

(p) *Exposed positions* means exposed to weather and sea.

(q) *Intact bulkhead* with respect to superstructure means a bulkhead with no openings.

(r) *Steel* means steel and materials with which structures can be made equivalent to steel with respect to such parameters as yield strength, total deflection, flexural life, or resistance to galvanic or stress corrosion.

§ 45.5 Seasonal application of load lines.

For the purposes of the law and regulations prohibiting submergence of load lines (46 U.S.C. 88c; 46 CFR 42.07–10), the fresh water and salt water load lines marked under this part apply during the following seasons:

(a) Summer load lines apply April 16 through April 30 and September 16 through September 30.

(b) Except for hopper dredges operating at working freeboards in accordance with subpart C of part 44 of this chapter, the Assigning Authority may not allow for lesser freeboards.

(c) Intermediate load lines apply October 1 through October 31 and April 1 through April 15.

(d) Winter load lines apply November 1 through March 31.

§ 45.9 Seasonal application of load lines for vessels not marked under this part.

(a) For the purposes of the law and regulations prohibiting submergence of load lines (46 U.S.C. 88c; 46 CFR 42.07–10) the marks assigned to vessels holding international load line certificates apply during the following seasons:

(1) Vessels assigned freeboards as new vessels under the International Load Line Convention, 1966—

(i) Winter—November 1 through March 31.

(ii) Summer—April 1 through April 30 and October 1 through October 31.

(iii) Tropical—May 1 through September 30;

(2) Vessels assigned freeboards as existing vessels under the International Load Line Convention, 1966—

(i) Winter—November 1 through March 31;

(ii) Summer—April 1 through April 30 and October 1 through October 31;

(iii) Tropical—September 16 through September 30;

(iv) Tropical Fresh—May 1 through September 15.

(b) Except for hopper dredges operating at working freeboards in accordance with subpart C of part 44 of this chapter, the Assigning Authority may not allow for lesser freeboards.

[CGD 73–49R, 38 FR 12290, May 10, 1973, as amended by CGD 76–080, 54 FR 36977, Sept. 6, 1989]

§ 45.11 Issue of load line certificate.

(a) A vessel 79 feet in length and more, and 150 gross tons or over, the keel of which is laid or which has reached a similar stage of construction

after April 14, 1973, must meet the requirements of this part.

(b) Except as prescribed in paragraph (a) of this section, any vessel that meets the requirements in subparts C and D of this part and the survey requirements in §§ 42.09–15 through 42.09–50 of this subchapter is entitled to assignment of freeboards and issue of a load line certificate under this part by the Commandant or his authorized representative.

(c) A vessel, the keel of which was laid or was at a similar stage of construction before April 14, 1973, that meets the requirements of this part that were in effect before April 14, 1973, and the survey requirements in §§ 42.09–15 through 42.09–50 of this subchapter is entitled to the assignment of freeboards calculated under the provisions of this part in effect before April 14, 1973, and to a load line certificate issued under this part by the Commandant or his authorized representative.

§ 45.13 Form of certificate.

The form of a load line certificate issued under this part is specified in appendix A to this part.

§ 45.15 Exemptions.

(a) The Commandant may exempt a ship from any of the requirements in this part if the chairman of the board of Steamship Inspections, Department of Transport, Canada, and the Commandant agree that the sheltered nature or the condition of that voyage make it unreasonable or impracticable to apply requirements of this part.

(b) The Commandant may exempt a vessel that embodies features of a novel kind from any of the requirements of this part if those requirements might seriously impede research into the development of such features and their incorporation in ships. Any such vessel must comply with the safety requirements that, in the opinion of the Commandant, are adequate for the service for which the vessel is intended and will insure the overall safety of the vessel. If the Commandant grants an exemption pursuant to this paragraph he communicates the details of the exemption and the reasons therefor to the chairman of the board of Steamship Inspections.

(c) A vessel that is not normally engaged on voyages to which this part applies but that, in exceptional circumstances, is required to undertake a single such voyage between two specific ports may be exempted by the Commandant from any of the requirements of this part, if the ship complies with safety requirements that, in the opinion of the Commandant are adequate for the voyage that is to be undertaken by the vessel.

(d) Unmanned dry cargo river barges carrying non-hazardous cargoes on certain routes on Lake Michigan may be exempted from load line requirements in accordance with the conditions specified in subpart E of this part.

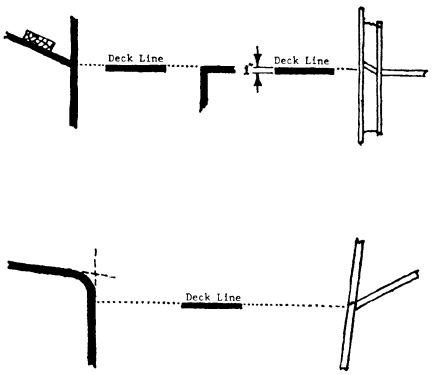
[CGD 73–49R, 38 FR 12290, May 10, 1973, as amended by CGD 84–058, 50 FR 19533, May 9, 1985; USCG–1998–4623, 67 FR 19690, Apr. 23, 2002]

Subpart B—Load Line Marks

§ 45.31 Deck line.

(a) Each vessel must be marked with a deck line on the outer surface of the shell on each side of the vessel with the upper edge of the line passing through the point where the upper surface of the freeboard deck intersects the outer surface of the shell or if the summer freeboard is correspondingly adjusted under § 45.57, the deck line may be placed above or below the freeboard deck. Figure 1 illustrates the deck line markings.

(b) Each deck line must be at least 12-inches long and 1-inch wide.



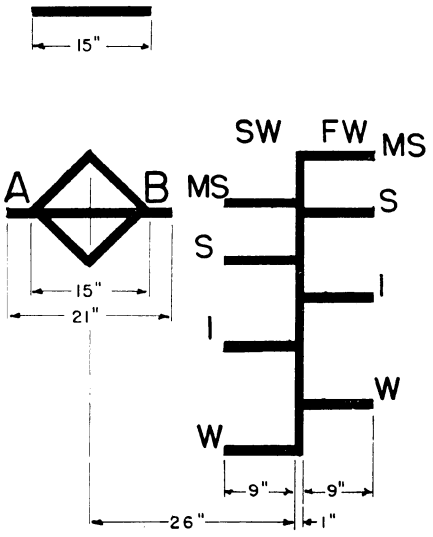
§ 45.33 Diamond.

(a) Each vessel must be marked with the diamond mark described in figure 2 of § 45.35 amidships below the upper edge of the deck line on each side with the center of the loadline mark at a distance below the deck line equal to the summer freeboard assigned under this part.

(b) The width of each line in the loadline mark must be 1 inch.

§ 45.35 Seasonal load lines.

Each vessel must have the summer (S), midsummer (MS), intermediate (I), and winter (W) loadlines for fresh water freeboards calculated under §§ 45.71 through 45.75 marked in accordance with § 45.39.



§ 45.37 Salt water load lines.

Each vessel that operates in the salt water of the St. Lawrence River must—

(a) Be marked with the summer (S), midsummer (MS), intermediate (I) and winter (W) load line marks under § 45.77 for salt water; and

(b) Be marked with the letters ''FW'' above the fresh water marks and the letters ''SW'' above the salt water marks as described in figure 2.

§ 45.39 Marking.

(a) The diamond, lines, and letters must be painted in white or yellow on a dark ground or in black on a light ground and permanently marked on the sides of the vessel.

(b) The upper edge of the line that passes through the center of the diamond must indicate summer freeboard assigned under § 45.53.

(c) Unless otherwise authorized the seasonal load lines must be horizontal lines extending forward of, and at right angles to, a vertical line marked at a distance 26 inches forward of the vertical centerline of the diamond as described in figure 2.

(d) The salt water load lines must be horizontal lines extending abaft the vertical line required by paragraph (b) of this section as described in figure 2.

(e) The upper edge of each seasonal and salt water load line mark must indicate the minimum freeboard for that mark.

(f) When two freeboards assigned under this part differ by 2 inches or less, the line for the lesser freeboard must be omitted and the line for the greater freeboard must be identified with the seasonal letters for both freeboards.

(g) Seasonal freeboards that are limited by a summer freeboard assigned under § 45.53(c) must not be marked but the identifying letter must be marked adjacent to the summer mark.

(h) The identity of the authority that assigns the freeboard must be indicated alongside the load line diamond above the horizontal line that passes through the center of the diamond with two initials approximately 4½ inches high and 3 inches wide.

Subpart C—Freeboards

§ 45.51 Types of ships.

(a) For the purpose of this subpart, a type A vessel has—

(1) No cargo ports or similar sideshell openings below the freeboard deck;

(2) Only small freeboard deck openings fitted with watertight gasketed hatch covers of steel;

(3) No dimension of a freeboard deck cargo opening greater than 6 feet and the total area not exceeding 18 ft^2; and

(4) No more than two freeboard deck cargo openings to a single cargo space.

(b) For the purposes of this subpart a type B vessel is a vessel that does not

meet the requirements in paragraph (a) of this section.

§ 45.53 Summer freeboard.

(a) Except as required in paragraph (c) of this section, the minimum freeboard in summer for a type A vessel is F in the following formula modified by the corrections in this subpart:

$$F \text{ (inches)} = 10.2 \times P_1 \times D$$

where P_1 is defined in § 45.55 and D is the depth for freeboard in feet.

(b) Except as required in paragraph (c) of this section, the minimum freeboard in summer for a type B vessel is F in the formula modified by the corrections in this subpart:

$$F \text{ (inches)} = 12 \times P_1 \times D$$

where P_1 is defined by § 45.55 and D is the depth for freeboard in feet.

(c) Seasonal freeboards assigned under §§ 45.71 through 45.75 must be calculated on the basis of the summer freeboard calculated under paragraph (a) or (b) of this section.

(d) If a minimum freeboard is required for a vessel under this part which is greater than that required by paragraph (a) or (b) of this section because of scantling or subdivision requirements, the summer freeboard and the seasonal freeboards assigned under this subpart must be no less than that minimum freeboard, except the midsummer seasonal freeboard may be calculated on the basis of the summer freeboard assigned under this paragraph.

(e) If a greater than the calculated minimum freeboard is requested by the applicant for the load line certificate, that greater freeboard may be assigned as the summer freeboard and—

(1) The intermediate and winter seasonal freeboards assigned must be calculated under paragraph (a) or (b) of this section; and

(2) The midsummer seasonal freeboard must be calculated on the basis of the summer freeboard assigned under this paragraph.

§ 45.55 Freeboard coefficient.

(a) For ships less than 350 feet in length (L), the freeboard coefficient is P_1 in the formula:

$$P_1 = P + A[(L/D) - (L/D_s)]$$

where P is a factor, which is a function of the length from table 1 and ''A'' is a coefficient, which is a function of length (L), from table 2; L/D is the ratio of the length (L) to the depth for freeboard (D); L/D_s is the ratio of the length (L) to a standard depth (D_s) from table 3.

D is not to be used as less than that which will give a ration of L to D that is:

(a) More than 15 when L=400 feet or less, or

(b) More than 21 when L=700 feet or more, with the ratio for intermediate lengths being calculated proportionately.

(b) For ships 350 feet or more in length (L), the coefficient ''A'' is zero and the formula is:

$$P_1 = P$$

where P is a factor, which is a function of length from table (1).

§ 45.57 Correction: Position of deckline.

(a) Where the depth to the upper edge of the deckline is greater or less than D, the difference between the depths must be added to or deducted from the freeboard.

(b) When the Commandant or the approved assigning authority approves a location for the deckline that is above or below the freeboard deck, the minimum summer freeboard must be corrected by—

(1) Adding the difference between the depth and D if the depth is greater than D; and

(2) Subtracting the difference between the depth and D, if the depth is less than D.

(c) Except for the adjustment allowed in paragraph (b) of this section, no freeboard of less than 2 in. may be assigned.

§ 45.58 Correction: Short superstructure.

The minimum freeboard in summer for a type B vessel that is 79 ft. or more but less than 500 ft. in length and has enclosed superstructures with an effective length of 25 percent or less of the length of the vessel must be increased by—

0.03 (500—L) (0.25—E/L) inches

where:

(L)=length of vessel in feet;

(E)=effective length of superstructure in feet as defined in § 45.59.

§ 45.59 Definitions for superstructure corrections.

For the purpose of §§ 45.58 through 45.61—

(a) The standard height of a superstructure (H^s) other than a raised quarter deck and the standard height of a trunk (H^s) is determined by the formula:

H^s=[6.0+(L/300)] ft

(b) The length of superstructure (S) is the length of those parts of the superstructure which extends to the sides of the vessel and that lie within the length (L).

(c) The effective length (E) of a trunk is its length in the ratio of its mean breadth to B.

(d) The effective length (E) of an enclosed superstructure of standard height or greater is its length ''S''.

(e) Where the height of an enclosed superstructure or trunk is less than the standard height (H_s),the effective length (E) is its length reduced in the ratio of its height to H_s.

(f) The effective length (E) of a raised quarter deck of ⅔ H_s or greater that has no openings in the front bulkhead is its length up to a maximum of 0.6L.

(g) The effective length (E) of a raised quarter deck of less than ⅔ H_s or that does not have an intact front bulkhead is its length reduced by the ratio of its height to H_s.

TABLE 12(1)

TABLES OF P VALUES

Length of Ship (feet)	Value of P
80	0.1100
90	0.1136
100	0.1172
110	0.1208
120	0.1244
130	0.1281
140	0.1318
150	0.1355
160	0.1393
170	0.1430
180	0.1468
190	0.1506
200	0.1545
210	0.1583
220	0.1622
230	0.1661
240	0.1700
250	0.1740
260	0.1780

TABLE 12(1)—Continued

TABLES OF P VALUES

Length of Ship (feet)	Value of P
270	0.1820
280	0.1860
290	0.1900
300	0.1941
310	0.1982
320	0.2023
330	0.2065
340	0.2106
350	0.2148
360	0.2190
370	0.2233
380	0.2275
390	0.2318
400	0.2361
410	0.2400
420	0.2437
430	0.2472
440	0.2506
450	0.2537
460	0.2567
470	0.2595
480	0.2621
490	0.2645
500	0.2667
510	0.2688
520	0.2706
530	0.2723
540	0.2738
550	0.2751
560	0.2762
570	0.2772
580	0.2779
590	0.2785
600	0.2788
610	0.2790
620	0.2790
630	0.2789
640	0.2785
650	0.2779
660	0.2772
670	0.2768
680	0.2760
690	0.2751
700	0.2740
710	0.2728
720	0.2715
730	0.2700
740	0.2684
750	0.2667
760	0.2648
770	0.2628
780	0.2607
790	0.2584
800	0.2560
810	0.2532
820	0.2504
830	0.2476
840	0.2448
850	0.2420
860	0.2392
870	0.2364
880	0.2336
890	0.2308
900	0.2280
910	0.2252
920	0.2224
930	0.2196
940	0.2168
950	0.2140
960	0.2112

TABLE 12(1)—Continued

TABLES OF P VALUES

Length of Ship (feet)	Value of P
970	0.2084
980	0.2056
990	0.2028
1000	0.2000

TABLE 12(2)

VALUES OF "A" FOR USE IN THE EXPRESSION

$P_1=P+$"A" $(L/D—L/D_s)$

Length of Ship (feet)	Value of "A"
80	0.00864
90	0.00806
100	0.00750
110	0.00696
120	0.00644
130	0.00594
140	0.00546
150	0.00500
160	0.00456
170	0.00414
180	0.00374
190	0.00336
200	0.00300
210	0.00266
220	0.00234
230	0.00204
240	0.00176
250	0.00150
260	0.00126
270	0.00104
280	0.00084
290	0.00066
300	0.00050
310	0.00036
320	0.00024
330	0.00014
340	0.00006
350	0.00000

TABLE 12(3)

VALUES OF L/DS

Length of Ship (feet)	Value of L/D_5
80	6.50000
90	6.76563
100	7.03125
110	7.29688
120	7.56250
130	7.82813
140	8.09375
150	8.35938
160	8.62500
170	8.89063
180	9.19625
190	9.42188
200	9.68750
210	9.95313
220	10.21875
230	10.48438
240	10.75000
250	11.01563
260	11.28125
270	11.54688
280	11.81250
290	12.07813
300	12.34375

TABLE 12(3)—Continued

VALUES OF L/DS

Length of Ship (feet)	Value of L/D_5
310	12.60938
320	12.87500
330	13.14063
340	13.40625
350	13.67188
360	13.93750
370	14.20313
380	14.46875
390	14.73438
400	15.00000

(h) Superstructures which are not enclosed have no effective length.

(i) When a lower deck is designated as the freeboard deck, that part of the hull which extends above the freeboard deck is treated as a superstructure so far as concerns the application of the conditions of assignment and the calculation of freeboard.

(j) A bridge or poop is enclosed only when access is provided whereby the crew may reach accommodations, machinery, or other working spaces inside the superstructure by alternative means that are available at all times when bulkhead openings are closed.

§ 45.61 Correction for superstructures and trunks.

(a) Where the effective length E of superstructures and trunks that meet the requirements of subpart D of this part is $1.0L$, the minimum summer freeboard may be corrected by subtracting $\frac{1}{2}H_s$.

(b) Where the effective length of superstructures and trunks is less than $1.0L$ the minimum summer freeboard may be corrected by subtracting a percentage of one-half of the standard superstructure height (H_s) determined by the formula:

$$\text{Percentage}=(E/2L)\,(1+E/L)\times 100$$

(c) To be eligible for the correction a trunk must—

(1) Be at least as strong and as stiff as a superstructure;

(2) Have no opening in the freeboard deck in way of the trunk, except small access openings;

(3) Have hatchway coamings and covers that meet §§ 45.143 through 45.147;

(4) Provide a permanent working platform fore and aft with guardrails;

(5) Provide fore and aft access between detached trunks and superstructures by permanent gangways;

(6) Be at least 60 percent of the breadth of the ship in way of the trunk; and

(7) Be at least 0.6 *L* in length, if no superstructure, is provided.

§ 45.63 Correction for sheer.

(a) The minimum summer freeboard must be increased by the deficiency, or may be decreased by the excess as limited by § 45.65, of sheer calculated from table 4, multiplied by:

$0.75—(S/2L)$

where *S* is the total length of enclosed superstructures. Trunks are not included.

§ 45.65 Excess sheer limitations.

The decrease in freeboard allowed in § 45.63 is limited as follows:

SHEER CALCULATION—TABLE 4

Station	Actual ordinate	S. M.	Product	
After Half:				
AP		1		
L/6-AP		3		
L/3-AP		3		
Midship		1		
Sum of Aft Products				
After Standard Sheer .2665L+26.65[1]				
Difference: Sum-STD				+Excess/−Deficiency
AFT Sheer: Diff÷8				Excess/Deficiency
Fwd. Half:				
FP		1		
L/6-FP		3		
L/3-FP		3		
Midships		1		
Sum of Fwd Products				
Fwd Standard Sheer .5330L+53.30[1]				
Difference: Sum-STD				+Excess/−Deficiency
FWD Sheer: Diff÷8				Excess/Deficiency

[1] L in Standard Sheer=L or 500 whichever is less.

Sheer Summation

Aft Sheer±	
Fwd Sheer±	
Net Sheer±	
Mean: Net−2	Excess/Deficiency

(a) In vessels having no enclosed superstructure from 0.1 *L* abaft amidships to 0.1 *L* forward of amidships, no decrease is allowed.

(b) In vessels having enclosed superstructures amidships less than 0.1 *L* before and abaft amidships, the decrease must be reduced by linear interpolation.

(c) If excess sheer exists in the forward half, and the after half is at least 75 percent of standard sheer, the full decrease is allowed. If the after sheer is between 50 percent and 75 percent of standard sheer an intermediate decrease, determined by linear interpolation, is allowed for the excess sheer forward. If the after sheer is 50 percent of standard or less, no decrease is allowed for the excess sheer forward.

(d) Where an enclosed poop or forecastle is of standard height with greater sheer than that of the freeboard deck, or is greater than standard height, an addition to the sheer of the freeboard deck may be made using the following formula:

$S=vL'/3L$

Where

s=sheer credit, to be deducted from the deficiency or added to the excess of sheer.

v=difference between actual and standard height of superstructure at the end ordinate.

L'=mean enclosed length of poop or forecastle up to a maximum length of 0.5 *L*.

The superstructure deck must not be less than standard height above this curve at any point. This curve must be used in determining the sheer profile for forward and after halves of the vessel.

(e) The maximum decreased for excess sheer must be no more than 1½ inches per 100 feet of length.

(f) Where the deck of an enclosed superstructure has at least the same sheer as the exposed freeboard deck, the sheer of the enclosed portion of the freeboard deck cannot be taken into account.

§ 45.67 Sheer measurement.

(a) The sheer is measured from the freeboard deck at side to a line of reference drawn parallel to the keel through the sheer line at amidships;

(b) In ships designed with a rake of keel or designed to trim by the stern, the sheer must be measured in reference to a line drawn through the sheer line at amidships parallel to the design load waterline.

(c) In flush deck ships and in ships with detached superstructures, the sheer must be measured at the freeboard deck.

(d) In ships with a step or break in the topsides, the sheer must be measured from the equivalent depth amidships.

(e) In vessels with a superstructure of standard height that extends over the whole length of the freeboard deck, the sheer must be measured on the superstructure deck. Where the height of superstructure exceeds the standard, the least difference (Z) between the actual and standard heights must be added to each end ordinate. Similarly, the intermediate ordinates at distance of ⅙ *L* and ⅓ *L* from each perpendicular must be increased by 0.444 Z and 0.111 Z respectively.

§ 45.69 Correction for bow height.

(a) The minimum summer freeboard of all manned vessels must be increased by the same amount in inches as any deficiency which may be shown by the following formulas:

(1) For vessels having a length of not less than 79 feet and not greater than 550 feet,

0.593 *L* (1.0–*L*/1640) inches—actual bow height

(2) For vessels having a length greater than 550 feet,

(341.6—0.227 L) inches—actual bow height

(b) Where the bow height is obtained by sheer, the sheer must extend for at least 15 percent of the length of the vessel measured from the forward perpendicular.

(c) Where the bow height is obtained by a superstructure, the superstructure must be enclosed and extend from the stem to a point at least 0.06 *L* abaft the forward perpendicular.

(d) Vessels which, to suit exceptional operational requirements, cannot meet the requirements of paragraph (c) of this section may be given special consideration by the Commandant.

(e) The bow height is defined as the vertical distance at the forward perpendicular between the waterline corresponding to the assigned summer freeboard at the designed trim and the top of the exposed deck at side.

§ 45.71 Midsummer freeboard.

The minimum midsummer freeboard (fms) in inches is obtained by the formula:

$$fms = f(s) - 0.3\mathrm{Ts}$$

where:

f(*s*)=summer freeboard in inches

Ts=distance in feet between top of keel and the summer load line.

§ 45.73 Winter freeboard.

The minimum winter freeboard (fw) in inches is obtained by the formula:

$$fw = f(s) + T \text{ s } (200)/L$$

where:

L=length L in feet but not less than 400 feet.

§ 45.75 Intermediate freeboard.

The minimum intermediate freeboard (f_I) in inches is obtained by the formula:

$$f_I = f(s) + T \text{ s}(100)/L$$

where:

L=length L in feet but not less than 400 feet.

§ 45.77 Salt water freeboard.

(a) The salt water addition in inches to freeboard applicable to each fresh water mark is obtained by the formula:

Addition=Δ/41T

where:

Δ=displacement in fresh water, in tons of 2,240 pounds, at the summer load waterline.

T=tons per inch immersion, of 2,240 pounds, in fresh water at the summer load waterline.

(b) When the displacement at the summer load waterline cannot be certified, the addition in inches to the minimum freeboard in fresh water may be obtained by multiplying 0.25 by the summer draught in feet measured from the top of the keel to the center of the load line diamond.

Subpart D—Conditions of Assignment

§ 45.101 Purpose.

This subpart prescribes conditions that a vessel must meet to be eligible for assignment of a loadline under this part.

§ 45.103 Structural stress and stability.

(a) The nature and stowage of the cargo, ballast, and other variable weights must be such as to make the vessel stable and avoid unacceptable structural stress.

(b) The vessel must meet all applicable stability and subdivision requirements of this chapter.

§ 45.105 Information supplied to the master.

Unless otherwise authorized by the Commandant, the vessel must have onboard, in a form approved by the Commandant, sufficient information.

(a) To enable the master to load and ballast the vessel in a manner that avoids unacceptable stresses in the vessel's structure; and

(b) To guide the master as to the stability of the ship under varying conditions of service.

§ 45.107 Strength of hull.

The general structural strength of the hull must be sufficient for the draught corresponding to the freeboard assigned and must be approved by the Commandant. Ships built and maintained in conformity with the requirements of a classification society may be recognized by the Commandant as possessing adequate strength.

§ 45.109 Strength of superstructures and deckhouses.

Each superstructure or deckhouse used for accommodations of the crew must be approved by the Commandant or the approved assigning authority with regard to general strength and weathertightness. The Commandant may use the requirements of the assigning authority as a guide.

§ 45.111 Strength of bulkheads at ends of superstructures.

Bulkheads at ends of enclosed superstructures must have sufficient strength to withstand impact of boarding seas.

§ 45.113 Access openings in bulkheads at ends of enclosed superstructures.

(a) Access openings in bulkheads at ends of enclosed superstructures must have doors of steel or material as strong as steel that are permanently attached to the bulkhead and framed, stiffened, and fitted so that the bulkhead and door are as strong as the bulkhead and weather tight when closed.

(b) The means for securing the doors weathertight must be permanently attached to the doors or bulkheads and arranged so that the doors can be secured weathertight from both sides of the bulkhead.

(c) Access openings in bulkheads at ends of enclosed superstructures must have sills that are at least 12 inches above the deck.

§ 45.115 Bulwarks and guardrails.

(a) The exposed parts of freeboard and superstructures decks and deckhouses on the freeboard deck must have guardrails or bulwarks that are at least 36 inches high above the deck.

(b) Guardrails must have at least three courses with no more than a 9-inch opening below the lowest course and no more than 15 inches between other courses. If the sheer strake projection is at least 8 inches above the deck, a guardrail may have two courses with no more than 15 inches between courses.

(c) In way of trunks at least half the protection required by paragraph (a) of this section must be in the form of open rails.

§ 45.117 Freeing port area: General.

(a) Where bulwarks on the weather portins of freeboard or superstructure decks form wells, the bulwarks must have the area prescribed in this section and §§ 45.119 and 45.121 for rapidly freeing and draining the decks of water.

(b) Except as required in §§ 45.119 and 45.121 the minimum freeing port area in square feet on each side of the ship for each well on the freeboard deck and on the raised quarterdeck must be at least as great as A in the following formulas:

(1) Where the length of bulwark (*l*) in the well is 66 feet or less, A=7.6+0.115 (*l*)

(2) Where (*l*) exceeds 66 feet, A=0.23 (*l*) but (*l*) need in no case be taken as greater than 0.7L.

(c) In ships having erections on deck that are open at either or both ends, provision for freeing the space within such erections must be approved by the Commandant or the assigning authority.

(d) The lower edges of the freeing ports must be as near the deck as practicable. Two-thirds of the freeing port area required must be provided in the half of the well nearest the lowest point of the sheer curve.

(e) All freeing port openings in the bulwarks must be protected by rails or bars spaced approximately 9 inches. If shutters are fitted to freeing ports, ample clearance must be provided to prevent jamming. Hinges must have pins or bearings of noncorrodible material. If shutters are fitted with securing appliances, these appliances must be of approved construction.

(f) The minimum freeing port area for each well on superstructure decks must be one-half of the area required by paragraph (b) of this section.

§ 45.119 Freeing port area: Changes from standard sheer.

The freeing port area required by § 45.117(b) must be multiplied by the factor in the following table 5 if the sheer differs from the standard sheer defined in § 45.63. Table 4.

TABLE 5

Freeing port area: Sheer correction.

Ratio of sums of actual sheer ord./std. sheer ord. Greater than:	Multiplier for area required by § 45.117(b)
1.0	1.0
1.0	1.00
0.9	1.05
0.8	1.10
0.7	1.15
0.6	1.20
0.5	1.25
0.4	1.30
0.3	1.35
0.2	1.40
0.1	1.45
No sheer	1.50

§ 45.121 Freeing port area: Changes for trunks and side coamings.

If a vessel has a trunk and does not meet the requirements of § 45.61 or has continuous or substantially continuous hatchway side coamings between detached superstructures, the minimum area of the freeing port openings must be obtained from the following table:

Breadth of hatchway or trunk in relation to the breadth of ship	Area of freeing ports in relation to the total area of the bulwarks (percent)
40 percent or less	20
75 percent or more	10

The area of freeing ports at intermediate breadths must be obtained by linear interpolation.

§ 45.123 Freeing port area: Changes for bulwark height.

(a) For the purposes of freeing port area only, bulwark height is considered standard at 24 in for ships 240 ft in length and less; and 48 in for ships 480 ft in length or greater. The standard bulwark height for ships of intermediate length is obtained by direct interpolation.

(b) If the bulwark is more than standard height, the area required by § 45.117 must be increased by 0.04 square feet per foot (ft^2/ft) of length of well for each foot difference in height.

(c) For ships greater than 480 ft in length that have an average bulwark height less than 3 ft, the area required by § 45.117 may be decreased by 0.04 ft^2/

ft of length for each foot difference in height.

§ 45.125 Crew passageways.

The vessel must have means for protection of the crew from boarding seas such as life lines, gangways, and underdeck passages to facilitate passing between their quarters and machinery spaces and other spaces essential to the operation of the ship.

§ 45.127 Position of structures, openings, and fittings.

For the purposes of this part—

(a) *Position 1* means in an exposed position on—

(1) The freeboard deck or a raised quarter deck;

(2) A superstructure deck or a trunk deck and forward of a point ¼ *L* from the forward perpendicular; or

(3) A trunk deck whose height is less than H_s.

(b) *Position 2* means—

(1) On a superstructure deck aft of a point ¼ *L* abaft the forward perpendicular; or

(2) On a superstructure and trunk combination, that is H_s or more n height, aft or a point ¼ *L* abaft the forward perpendicular.

§ 45.129 Hull fittings: General.

Hull fittings must be securely mounted in the hull so as to avoid increases in hull stresses and must be protected from local damage caused by movement of equipment or cargo.

§ 45.131 Ventilators.

(a) Ventilators passing through superstructures other than enclosed superstructures must have coamings of steel or equivalent material at the freeboard deck.

(b) Ventilators in position 1 must have coamings at least 30 in. above the deck and ventilators in position 2 must have coamings at least 24 in. above the deck. The Commandant or the assigning authority may also require coamings in other exposed positions.

(c) Ventilators in position 1 or 2 to spaces below freeboard decks or decks of enclosed superstructures or trunks must have coamings of steel permanently connected to the deck and any ventilator coaming that is more than 36 in. high must be specially supported.

(d) Except as provided in paragraph (e) of this section ventilator openings must have weathertight closing appliances that are permanently attached or, where approved by the Commandant or the assigning authority conveniently stowed near the ventilators to which they are to be fitted.

(e) Ventilators in position 1, the coamings of which extend to more than 12.5 ft above the deck, and in position 2, the coamings of which extend to more than 6 ft above the deck, need not have closing appliances unless specifically required by the Commandant.

§ 45.133 Air pipes.

(a) Where an air pipe to any tank extends above the freeboard or superstructure deck—

(1) The exposed part of the air pipe must be made of steel and of sufficient thickness to avoid breaking from impact of boarding seas.

(2) The air pipe must have a permanently attached means of closing its opening; and

(3) The height from the deck to any point where water may obtain access below deck must be at least 30 in above the freeboard deck, 24 in above raised quarter decks, and 12 in above other superstructure decks.

(b) If the height required in paragraph (a) of this section interferes with working the ship, the Commandant may approve a lower height after considering the closing arrangements.

§ 45.135 Hull openings at or below freeboard deck.

Closures for hull openings at or below the freeboard deck must be as strong as the structure to which they are attached and must be watertight.

§ 45.137 Cargo ports.

(a) Unless otherwise authorized by the Commandant, the lower edge of any opening for cargo, personnel, machinery access, or similar opening in the side of a ship must be above a line that is drawn parallel to the freeboard deck at side and has as its lowest point the upper edge of the uppermost loadline.

(b) The number of cargo ports in the sides of a ship must be—

(1) No more than the minimum necessary for working the ship; and

(2) Approved by the Commandant.

§ 45.139 Side scuttles.

(a) The sill of each side scuttle must be above a line that is drawn parallel to the freeboard deck at side having its lowest point 2.5 percent of the breadth or 20 in above the summer load waterline, whichever is higher.

(b) Except as provided for in paragraph (c) of this section, each side scuttle to a space below the freeboard deck, or to a space within an enclosed superstructure, must have a hinged inside deadlight which is designed so that it can be secured watertight over the side scuttle.

(c) A side scuttle of a superstructure end bulkhead door, companionway door, or deckhouse door may have a portable inside deadlight which is designed so that it can be:

(1) Secured watertight over the side scuttle; and

(2) Stowed inside the superstructure, companionway, or deckhouse when not in use, in a readily accessible location on or adjacent to the door.

[CGD 73–49R, 38 FR 12290, May 10, 1973, as amended by CCGD 80–116, 46 FR 56788, Nov. 19, 1981]

§ 45.141 Manholes and flush scuttles.

Manholes and flush scuttles in position 1 or 2 or within any superstructure other than an enclosed superstructure must have permanently attached covers, unless the cover is secured by closely spaced bolts around its entire perimeter.

§ 45.143 Hull openings above freeboard deck.

Closures for openings above the freeboard deck must be as strong as the structure to which they are attached and must be weathertight.

§ 45.145 Hatchway covers.

(a) Hatchways in position 1 and 2 must have weathertight hatch covers with gaskets and clamping devices.

(b) The maximum ultimate strength of the hatchway cover material must be at least 4.25 times the maximum stress in the structure calculated with the following assumed loads:

(1) For ships 350 ft or more in length, at least 250 lb/ft^2 in position 1 and 200 lb/ft^2 in position 2.

(2) For ships less than 350 ft in length, at least AL in the following formula:

(i) Position 1:

$$AL=200+C$$

where $C=50(L-79)/271$

(ii) Position 2:

$$Al=150+C$$

(c) Hatchway covers must be so designed as to limit the deflection to not more than 0.0028 times the span under the loads described in paragraph (b) of this section and the thickness of mild steel plating forming the tops of covers must be at least 1 percent of the spacing of stiffeners or 0.24 in, whichever is greater.

§ 45.147 Hatchway coamings.

(a) Except where the Commandant determines that the safety of the vessel will not be impaired in any sea condition, each hatchway must have a coaming that is at least—

(1) 18 inches in position 1; and

(2) 12 inches in position 2.

(b) Each hatchway coaming required by this section must be made of steel or equivalent material.

(c) The height of these coamings may be reduced or omitted if the Commandant is satisfied that safety of the ship is not thereby impaired in any sea conditions.

§ 45.149 Machinery space openings.

(a) Machinery space openings in position 1 or 2 must be framed and enclosed by steel casings, and where the casings are not protected by other structures that meet the requirements of § 45.109, their strength must be approved by the Commandant or the assigning authority.

(b) Access openings in casings required by paragraph (a) of this section must have doors complying with the requirements of § 45.113. Other openings in such casings shall be fitted with equivalent covers, permanently attached.

(c) Except as provided in paragraph (d) of this section, coamings of any funnel or machinery space ventilator that must be kept open for the essential operations of the ship must—

(1) In position 1, extend at least 12.5 ft above the deck; and

(2) In position 2, extend at least 6 ft above the deck.

(d) The Commandant may approve a lesser height for protected coamings.

(e) Coamings of any fiddley or skylight over a machinery space opening in the freeboard or superstructure deck or the top of a deckhouse on the freeboard deck, must have covers of steel permanently attached and capable of being secured weathertight.

§ 45.151 Other openings.

Each opening other than hatchways, machinery space openings, manholes, or flush scuttles—

(a) In freeboard decks, must be protected by an enclosed superstructure or by a deckhouse or companionway that is equal in strength and weathertightness to an enclosed superstructure; or

(b) In exposed superstructure decks or in the top of a deckhouse on freeboard decks that gives access to a space below the freeboard deck or a space within an enclosed superstructure, must be protected by a deckhouse or companionway.

§ 45.153 Through-hull piping: General.

(a) All through-hull pipes required by this subpart must be made of steel or material equivalent to the hull in strength and fatigue resistance.

(b) All valves used as shell fittings and all shell fittings on which such valves are mounted must be made of steel, or bronze or other ductile material approved by the Commandant.

§ 45.155 Inlets and discharge piping: Valves.

(a) Except as provided in paragraphs (d) and (e) of this section each pipe that discharges overboard through the hull of the ship must have—

(1) An automatic nonreturn valve with a positive means for closing; or

(2) Two automatic nonreturn valves with the inboard valve accessible for examination in service.

(b) The means for operating a valve described by paragraph (a)(1) of this section must be readily accessible and have indicators that show when the valve is not closed.

(c) If the pipe discharges from a space that is not manned or does not have continuous bilge water monitoring, a valve described in paragraph (a)(1) of this section must be operable above the freeboard deck.

(d) Each pipe that discharges from a space within an enclosed superstructure or deckhouse may have at least one accessible automatic nonreturn valve if the space is regularly visited by the crew.

(e) Through-hull piping systems in machinery spaces may have valves with positive means for closing at the shell if the controls are readily accessible and have indicators showing when the valves are not closed (nonreturn valves are not required).

§ 45.157 Scuppers and gravity drains.

Scuppers and gravity deck drains from spaces above the freeboard deck that penetrate the shell below a line 24″ or .05B above the summer loadline, whichever is greater, must have an automatic nonreturn valve. This valve may be omitted if the piping is of thickness not less than extra heavy pipe.

§ 45.159 Special conditions of assignment for type A vessels.

The lower freeboards allowed for type A vessels allow water on deck for greater percentages of time. Therefore the following additional requirements must be met to qualify for type A freeboards:

(a) Machinery casings must be protected by an enclosed superstructure or deckhouse unless intact bulkheads are used on all sides on the freeboard deck.

(b) Exposed machinery casings may be fitted with weathertight doors providing they lead to a space or passageway as strong as an enclosed superstructure from which a second interior weathertight door is provided for access to the engine room.

(c) Hatchways on the exposed freeboard or forecastle decks must be provided with watertight covers of steel.

(d) Unless a separate fore and aft access is provided below the freeboard deck, a permanent fore and aft gangway must be fitted at the superstructure deck level between poop and all other deckhouses used in the essential operation of the vessel.

(e) Type ''A'' vessels must be fitted with open rails for at least half the length of the exposed parts of the weather deck. Where superstructures are connected by trunks, open rails must be fitted for the whole length of the exposed parts of the freeboard deck.

Subpart E—Unmanned River Barges on Lake Michigan Routes

SOURCE: USCG–1998–4623, 67 FR 19690, Apr. 23, 2002, unless otherwise noted.

§ 45.171 Purpose.

(a) This subpart establishes a special load line regime under which certain unmanned, river-service, dry-cargo barges may be exempted from the normal Great Lakes load line requirements while operating on certain Lake Michigan routes. Depending upon the route, the barge may only need a limited service domestic voyage load line, or may be conditionally exempted from load line assignment.

(b) Except as provided in this subpart, barges operating on Lake Michigan must have either an international load line assignment issued in accordance with the International Convention on Load Lines, 1966, as amended, or a Great Lakes load line assignment issued in accordance with the requirements of this part.

(c) The requirements of this subpart are summarized in Table 45.171:

Table 45.171:
Load Line Requirements for Dry Cargo River Barges
Operating on Lake Michigan

	Voyages between Calumet Harbor, IL and:			
	Burns Harbor, IN	**Milwaukee, WI**	**St. Joseph, MI**	**Muskegon, MI**
1) Load line requirement	Conditionally exempted from load line assignment (must meet requirements below)		"Limited service domestic voyage" load line	
2) Where to register/apply	Exempted barges must be registered with the USCG Marine Safety Unit 555A Plainfield Road, Willowbrook, IL 60527 Fax: (630) 986-2120		Apply for load line to ABS Americas 16855 Northchase Dr. Houston, TX 77060	
3) Eligible barges	Dry cargo river barges Built and maintained in accordance with ABS River Rules Length-to-depth ratio less than 22 All weathertight and watertight closures are in proper working condition			
	No age limitation	Not more than 10 years old	No age limitation	
4) Freeboard requirement	All barges: freeboard must be at least 24 inches (610 mm) Open hopper barges: coaming height + freeboard must be at least 54 inches (1,372 mm)			
5) Tow limitations	Barges must be unmanned Not more than 5 nautical miles from shore			
	No limit on number of barges	Not more than 3 barges per tow		
6) Cargo limitations	Dry cargoes only. Liquid cargoes, even in drums or tank containers, are prohibited No hazardous materials. HazMats are defined in 46 CFR part 148 and 49 CFR chapter 1, subchapter C			
7) Weather limitations Voyage may not begin; or if these conditions arise during transit, voyage must be discontinued and tow must proceed to shelter.	"Fair weather" only	Ice conditions: adverse conditions that imperil tow or access to shelter Waves: 4 feet (1.2 m)		
		Sustained winds: 16 kts from NE, E, SE 21 kts from N, NW, W, SW, S	Sustained winds: 16 kts from N, NW, W, SW 21 kts from NE, E, SE, S	
8) Pre-departure preps:	Required -- as specified in § 45.191			
9) Towboat requirements		Sufficient to handle tow, but at least--		
(a) Power:	Sufficient to handle tow	1,000 HP		1,500 HP
(b) Communication system:	Recommended -- § 45.195(a)	Recommended -- § 45.195(a)		Required -- § 45.195(a)
(c) Cutting gear:	Recommended -- § 45.195(b)	Recommended -- § 45.195(b)		Required -- § 45.195(b)
(d) Operational plan:	Recommended -- § 45.197	Recommended -- § 45.197		Required -- § 45.197

[USCG–1998–4623, 67 FR 19690, Apr. 23, 2002, as amended at 75 FR 70601, Nov. 18, 2010; 75 FR 78928, Dec. 17, 2010; 76 FR 32326, June 6, 2011]

§ 45.173 Eligible barges.

Only barges meeting the following requirements are eligible for the special load line regime under this subpart:

(a) Unmanned, river service, dry-cargo barges;

(b) Barges that have been designed and built to at least the minimum scantlings of the American Bureau of Shipping River Rules which were in effect at the time of construction;

(c) Barges with a length-to-depth ratio less than 22;

(d) Barges on the Milwaukee route must not be more than 10 years old; and

(e) All weathertight and watertight closures (dogs, gaskets, covers, etc.) must be in proper working condition.

[USCG–1998–4623, 67 FR 19690, Apr. 23, 2002, as amended at 75 FR 70603, Nov. 18, 2010]

§ 45.175 Applicable routes.

This subpart applies to the following routes, including intermediate ports, on Lake Michigan, between Calumet Harbor, IL, and—

(a) Milwaukee, WI (the ''Milwaukee route'');

(b) Burns Harbor, IN (the ''Burns Harbor route'');

(c) St. Joseph, MI (the ''St. Joseph route''); and

(d) Muskegon, MI (the ''Muskegon route'').

[USCG–1998–4623, 75 FR 70604, Nov. 18, 2010]

§ 45.177 Freeboard requirements.

(a) All barges must have a minimum freeboard of 24 inches (610 mm).

(b) Additionally, open hopper barges must have a combined freeboard plus cargo box coaming height of at least 54 inches (1,372 mm).

§ 45.179 Cargo limitations.

(a) Only dry cargoes may be carried. Liquid cargoes, even in drums or tank containers, may not be carried.

(b) Hazardous materials, as defined in part 148 of this chapter and 49 CFR chapter 1, subchapter C, may not be carried.

§ 45.181 Load line exemption requirements for the Burns Harbor and Milwaukee routes.

Barges operating on the Burns Harbor and Milwaukee routes may be conditionally exempted from load line assignment provided that the following requirements are met:

(a) *Registration.* Before the barge's first voyage onto Lake Michigan, the owner or operator must register the barge in writing with the Commanding Officer, Marine Safety Unit Chicago, 555A Plainfield Road, Willowbrook, IL, 60527. The registration may be faxed to MSU Chicago in advance at (630) 986–2120, with the original following by mail. The registration may be in any form, but must be signed by the owner or operator. No load line exemption certificate will be returned. However, the registration will be kept on file.

(b) The registration must include the following information:

(1) Barge name and official documentation number;

(2) Owner and operator (points-of-contact, company addresses and telephone numbers);

(3) Service route (Milwaukee and/or Burns Harbor);

(4) Design type (covered/uncovered hopper, deck, etc.);

(5) External dimensions;

(6) Types of cargo; and

(7) Place built and original delivery date.

(c) The registration must include a statement certifying that:

(1) The barge has been designed and built to at least the minimum scantlings of the ABS River Rules which were in effect at the time of construction; and

(2) The owner or operator agrees to maintain the barge in serviceable condition and comply with the applicable provisions of 46 CFR part 45, subpart E.

(d) *Expiration.* Registration is valid only until the earliest of the following events:

(1) The tenth anniversary of the delivery date (for barges on the Milwaukee route),

(2) The barge no longer is fit for this service (due to damage), or

(3) The barge changes ownership or operators (registration is not transferable to new owners or operators; the barge must be re-registered if it is to continue in Lake Michigan service).

(e) *Notification.* The owner or operator of an exempted barge must notify the OCMI of the transfer of ownership or change of operator, withdrawal from Lake Michigan service (due to damage, age, or other circumstances), or other disposition of the barge.

[USCG–1998–4623, 67 FR 19690, Apr. 23, 2002, as amended by USCG–2006–25556, 72 FR 36330, July 2, 2007; 75 FR 70604, Nov. 18, 2010]

§ 45.183 Load line requirements for the St. Joseph and Muskegon routes.

(a) *Load line certificate.* (1) The load line issued under this subpart must be a limited-service, domestic-voyage load line.

(2) Except as provided under paragraph (b)(2)(vi) of this section, the term of the certificate is 5 years.

(3) The load line certificate is valid for the St. Joseph and Muskegon routes, and intermediate ports. However, operators must comply with the route-specific requirements on the certificate.

(4) The freeboard assignment, operational limitations, and towboat requirements of this subpart must appear on the certificate.

(b) *Conditions of assignment.* (1) An initial load line survey under § 42.09–25 of this chapter and subsequent annual surveys under § 42.09–40 of this chapter are required.

(2) At the request of the barge owner, the initial load line survey may be conducted with the barge afloat if the following conditions are met:

(i) The barge is less than 10 years old;

(ii) The draft during the survey does not exceed 15 inches (380 millimeters);

(iii) The barge is empty and thoroughly cleaned of all debris, excessive rust, scale, mud, and water. All internal structure must be accessible for inspection;

(iv) Gaugings are taken to the extent necessary to verify that the scantlings are in accordance with approved drawings;

(v) The hull plating (bottom and sides) and stiffeners below the light waterline are closely examined internally. If the surveyor determines that sufficient cause exists, the surveyor may require that the barge be drydocked or hauled out and further external examination conducted; and

(vi) The initial load line certificate is to be issued for a term of 5 years or until the barge reaches 10 years of age, whichever occurs first. Once this certificate expires, the barge must be drydocked or hauled out and fully examined internally and externally.

[USCG–1998–4623, 67 FR 19690, Apr. 23, 2002, as amended at 75 FR 70604, Nov. 18, 2010]

§ 45.185 Tow limitations.

(a) Barges must not be manned.

(b) No more than a total of three barges per tow may operate on the Milwaukee, St. Joseph, and Muskegon routes. A mixed tow of load-lined and exempted barges is still limited to three barges on those routes.

(c) Tows must not be more than 5 nautical miles from shore.

[USCG–1998–4623, 67 FR 19690, Apr. 23, 2002, as amended at 75 FR 70604, Nov. 18, 2010]

§ 45.187 Weather limitations.

(a) Tows on the Burns Harbor route must operate during fair weather conditions only.

(b) The weather limits (ice conditions, wave height, and sustained winds) for the Milwaukee, St. Joseph, and Muskegon routes are specified in § 45.171, Table 45.171.

(c) If weather conditions are expected to exceed these limits at any time during the voyage, the tow must not leave harbor or, if already underway, must proceed to the nearest appropriate harbor of safe refuge.

[USCG-1998-4623, 76 FR 32327, June 6, 2011]

§ 45.191 Pre-departure requirements.

Before beginning each voyage, the towing vessel master must conduct the following:

(a) *Weather forecast.* Determine the marine weather forecast along the planned route, and contact the dock operator at the destination port to get an update on local weather conditions.

(b) *Inspection.* Inspect each barge of the tow to ensure that they meet the following requirements:

(1) A valid load line certificate, if required, is on board;

(2) The barge is not loaded deeper than permitted;

(3) The deck and side shell plating are free of visible holes, fractures, or serious indentations, as well as damage that would be considered in excess of normal wear;

(4) The cargo box side and end coamings are watertight;

(5) All hatch and manhole dogs are in working condition, and all covers are closed and secured watertight;

(6) All voids are free of excess water; and

(7) Precautions have been taken to prevent shifting of cargo.

(c) *Verifications.* On voyages north of St. Joseph, the towing vessel master must contact a mooring/docking facility in St. Joseph, Holland, Grand Haven, and Muskegon to verify that sufficient space is available to accommodate the tow. The tow cannot venture onto Lake Michigan without confirmed space available.

(d) *Log entries.* Before getting underway, the towing vessel master must note in the logbook that the pre-departure barge inspections, verification of mooring/docking space availability, and weather forecast checks were performed, and record the freeboards of each barge.

[USCG–1998–4623, 67 FR 19690, Apr. 23, 2002, as amended at 75 FR 70604, Nov. 18, 2010; 75 FR 78928, Dec. 17, 2010; 76 FR 32327, June 6, 2011]

§ 45.193 Towboat power requirements.

The towing vessel must meet the following requirements:

(a) *General.* The towing vessel must have adequate horsepower (HP) to handle the tow, but not less than the amount specified for the routes below.

(b) *Milwaukee and St. Joseph routes:* a minimum of 1,000 HP.

(c) *Muskegon route:* a minimum of 1,500 HP.

[USCG–1998–4623, 67 FR 19690, Apr. 23, 2002, as amended at 75 FR 70604, Nov. 18, 2010]

§ 45.195 Additional equipment requirements for the Muskegon route.

Towboats on the Muskegon route must meet these additional equipment requirements:

(a) *Communication equipment.* Two independent voice communication systems in operable condition, such as Very High Frequency (VHF) radio, radiotelephone, or cellular phone. At least two persons aboard the vessel must be capable of using the communication systems.

(b) *Cutting gear.* Equipment that can quickly cut the towline at the towing vessel. The cutting gear must be in operable condition and appropriate for the type of towline being used, such as wire, polypropylene, or nylon. At least two persons aboard the vessel must be capable of using the cutting gear.

§ 45.197 Operational plan requirements for the Muskegon route.

Towing vessels on the Muskegon route must have on board an operational plan that is available for ready reference by the master. The plan must include the following:

(a) The cargo limitations, the general operational requirements, and the special operational requirements of this subpart.

(b) A list of mooring and docking facilities (with phone numbers) in St. Joseph, Holland, Grand Haven, and Muskegon, that can accommodate the tow.

(c) A list of towing firms (with phone numbers) that have the capability to render assistance to the tow, if required.

(d) Guidelines for possible emergency situations, such as barge handling under adverse weather conditions, and other emergency procedures.

[USCG–1998–4623, 67 FR 19690, Apr. 23, 2002, as amended at 75 FR 70604, Nov. 18, 2010]

APPENDIX A TO PART 45—LOAD LINE CERTIFICATE FORM

GREAT LAKES LOAD LINE CERTIFICATE

No. _____

Issued under the authority of the Commandant, U.S. Coast Guard, United States of America, under the provisions of the Act of August 27, 1935, as amended to establish load lines on the Great Lakes of North America and the Load Line regulations in force on _____, 19___, By _____, duly authorized by the Commandant to issue said load line certificate.

Ship _____
Certificate No. _____
Official No _____
Length (LBP) _____
Gross tonnage _____
Port of registry _____

Type of Ship:

TYPE ''A''
TYPE ''B''
TYPE ''B'' with increased freeboard

FREEBOARD FROM DECK LINE

Midsummer	MS
Summer	S
Intermediate	I
Winter	W

LOAD LINE

.....	above S
Upper edge of line through center of diamond	
	below S
	below S

Increase for salt water for all freeboards ____ inches.

The upper edge of the deck line from which these freeboards are measured is ____ inches above or below the top of the _____ deck at side.

This is to certify that this ship has been surveyed and the freeboards and load lines shown above have been found to be correctly marked upon the vessel in manner and location as provided by the load line regulations of the Commandant, U.S. Coast Guard, applicable to the Great Lakes.

This certificate[1] remains in force until _____. Issued at _____ on the _____ day of _____, 19____. (Here follows the signature, seal, if any, and the name of the authority issuing the certificate.)

NOTES

(1) In accordance with the Great Lakes Load Line Regulations the diamond and

[1] Upon the expiration of the certificate, renewal must be obtained as provided by the Great Lakes Load Line Regulations and the certificate so endorsed.

lines must be permanently marked. The ''MS'' loadline shall be assigned only to those particular vessels that qualify under the regulations.

(2) The ''SW'' marks need only be assigned to Great Lakes vessels loading in salt water of the St. Lawrence River west of a straight line from Cap de Rosiers to West Point Anticosti Island, and west of a line along longitude 63 degrees west from Anticosti Island to the north shore of the St. Lawrence River. In such cases these limits shall be indicated on the certificate.

(3) The load line assignment given by this certificate necessarily assumes that the nature and stowage of cargo, ballast, etc., are such as to secure sufficient stability for the vessel. Accordingly, it is the owner's responsibility to furnish the Master of the vessel with stability information and instructions when this is necessary to maintenance of sufficient stability.

(On the reverse side of the load line certificate, or on a separate sheet, attached and forming part of the certificate, provision is to be made for annual inspection and renewal endorsements.)

PART 46—SUBDIVISION LOAD LINES FOR PASSENGER VESSELS

Subpart 46.01—Purpose

Sec.

Subpart 46.05—Definitions Used in This Part

Subpart 46.10—Administration

Subpart 46.15—Subdivision Load Lines for Passenger Vessels Engaged in Foreign, Coastwise, and Great Lakes Voyages

AUTHORITY: 46 U.S.C. 3306; 46 U.S.C. 5101–5116; E.O. 12234, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGFR 65–50, 30 FR 16769, Dec. 30, 1965, unless otherwise noted.

Subpart 46.01—Purpose

§ 46.01–1 Purpose.

(a) The purpose of the regulations in this part is to set forth uniform minimum requirements applicable to passenger vessels required to have subdivision load lines. These requirements deal with the following:

(1) Load line requirements applicable before a passenger vessel will be marked with and certificated as to subdivision load lines.

(2) Assigning, marking, and recording of subdivision load lines.

(3) Administration of subdivision load lines.

(4) Application of requirements to passenger vessels.

§ 46.01–15 Application of regulations.

(a) The regulations in this part establish subdivision load lines required on passenger vessels engaged in foreign voyages, as well as on passenger vessels of 150 gross tons or over engaged in coastwise or Great Lakes voyages.

(b) When engaged in voyages subject to this part, no passenger vessel required to be marked with subdivision load lines shall depart from or arrive at any port or place under the jurisdiction of the United States, nor shall such United States vessel operate on the high seas nor the Great Lakes, unless such vessel has been marked with subdivision load lines in accordance with the regulations in this part, has on board a valid certificate certifying to

the correctness of the location of such subdivision load line marks, and is otherwise in compliance with the applicable requirements of law and regulations in this part.

(c) No passenger vessel of the United States of 150 gross tons or over and subject to 46 U.S.C. 5101–5116, shall engage in coastwise voyages or voyages on the Great Lakes unless such vessel has been marked with subdivision load lines in accordance with the regulations in this part and has on board a valid certificate certifying to the correctness of the location of such subdivision load line marks.

(d) No foreign passenger vessel belonging to a country that has ratified or acceded to the applicable International Convention for Safety of Life at Sea shall arrive or depart from any port or place under the jurisdiction of the United States, and no foreign passenger vessel subject to 46 U.S.C. 5101–5116, shall arrive or depart from any port or place under the jurisdiction of the United States, including ports on the Great Lakes, unless that vessel has been marked with subdivision load lines in accordance with the regulations in this part and has on board a valid certificate certifying to the correctness of the location of such subdivision load line marks.

(e) Subdivision load lines shall be marked on both sides of passenger vessels where determined and in a manner described in subpart 46.15 as applicable to the vessel's service. The subdivision load line certificates shall be in accordance with §§ 46.10–30 and 46.10–35.

[CGFR 65–50, 30 FR 16769, Dec. 30, 1965 as amended by CGD 80–120, 47 FR 5723, Feb. 8, 1982; CGD 97–057, 62 FR 51044, Sept. 30, 1997; USCG–1998–4442, 63 FR 52190, Sept. 30, 1998]

§ 46.01–20 Penalties for violations.

(a) Penalties for violations of the regulations in this part by passenger vessels of the United States engaged in foreign voyages shall be in accordance with those laws which require the inspection and certification of the vessel. In addition, for passenger vessels subject to 46 U.S.C. 5101–5116, which engage in voyages described in § 42.03–5, § 42.03–10, or § 45.01–1, the penalties for violations of the regulations in this part shall be those set forth in the load line act applicable to the vessel.

(b) For a further description of the actions which may be taken see § 42.07–50, of this subchapter. The procedures governing the assessment, collection, remission and mitigation of any monetary penalty imposed for a violation of a law or the regulations prescribed thereunder in this part, as well as the appeal procedures followed, are in subpart 2.50 of part 2 of subchapter A (Procedures Applicable to the Public) of this chapter.

[CGFR 65–50, 30 FR 16769, Dec. 30, 1965, as amended by CGFR 68–60, 33 FR 10077, July 12, 1968; CGD 80–120, 47 FR 5723, Feb. 8, 1982; CGD 97–057, 62 FR 51044, Sept. 30, 1997]

Subpart 46.05—Definitions Used in This Part

§ 46.05–1 Passenger vessel.

(a) For the purpose of the regulations in this part, a vessel is a passenger vessel if:

(1) Engaged on an international voyage by sea, it carries or is authorized to carry more than 12 passengers; or,

(2) Engaged on a coastwise voyage by sea or a voyage on the Great Lakes, it carries or is authorized to carry more than 16 persons in addition to the crew.

§ 46.05–10 Foreign voyage.

(a) A foreign voyage for the purpose of marking passenger vessels with subdivision load lines is a voyage by sea between a port under the jurisdiction of the United States and a port of a foreign country, its colonies, territories, or protectorates, or conversely (a voyage exclusively on the Great Lakes excepted).

§ 46.05–15 Coastwise voyages.

(a) A coastwise voyage by sea, for the purpose of marking passenger vessels with subdivision load lines, is a voyage in which a vessel in the usual course of her employment proceeds from one port or place in the United States to another port or place in the United States or from a port or place in a possession to another port or place in the same possession, and passes outside the line dividing inland waters from the high seas (a voyage exclusively on the

Great Lakes excepted), as well as a voyage in which a vessel proceeds from a port or place in the United States or her possessions and passes outside the line dividing inland waters from the high seas and navigates on the high seas, and then returns to the same port or place.

§ 46.05–20 Great Lakes voyage.

A Great Lakes voyage is any voyage from a United States port or place on the Great Lakes to another United States port or place on the Great Lakes or to a Canadian port or place on the Great Lakes, or conversely.

§ 46.05–25 New passenger vessel.

A new passenger vessel is a vessel whose keel was laid or was a vessel converted into a passenger vessel on or after May 26, 1965.

[CGFR 65–50, 30 FR 16769, Dec. 30, 1965, as amended by CGFR 68–60, 33 FR 10077, July 12, 1968]

§ 46.05–30 Existing passenger vessel.

An existing passenger vessel in respect to its voyage is any passenger vessel that is not a new passenger vessel as defined in § 46.05–25.

Subpart 46.10—Administration

§ 46.10–1 Relaxation from regulations.

(a) New passenger vessels making foreign voyages by sea shall comply with the requirements in this part. An existing passenger vessel engaged in foreign voyages by sea may be permitted relaxation from the requirements of this part if, in the opinion of the Commandant, U.S. Coast Guard, such requirements are unreasonable or impracticable.

(b) A new passenger vessel making coastwise voyages by sea or making Great Lakes voyages shall comply with the requirements in this part. An existing passenger vessel making coastwise voyages by sea or Great Lakes voyages may be permitted relaxation from the requirements of this part if, in the opinion of the Commandant, U.S. Coast Guard, such requirements are unreasonable or impracticable.

§ 46.10–5 Load line requirements for subdivision.

(a) The load line requirements of parts 42, 44, 45 of this subchapter as applicable to the passenger vessel and her service, shall be complied with before a passenger vessel will be marked with and certificated as to subdivision load lines.

[CGFR 65–50, 30 FR 16769, Dec. 30, 1965, as amended by CGFR 68–60, 33 FR 10077, July 12, 1968]

§ 46.10–10 Marks to indicate subdivision load lines.

(a) Marks to indicate the maximum mean draft to which a passenger vessel may be lawfully submerged shall be permanently marked on each side of the passenger vessel in the form, manner, and location provided in this part.

(b) The Commandant, U.S. Coast Guard, will determine the position of the subdivision load lines by the application of the requirements contained in this part and parts 170 and 171 of this chapter. The correct marking of subdivision load lines will be certified by the American Bureau of Shipping or a classification society approved by the Commandant for that purpose.

(c) Certificates certifying to the correctness of subdivision load line marks shall not be furnished until it is determined that the marks have been correctly placed upon the passenger vessel.

(d) In the case of passenger vessels that are required by the International Convention for Safety of Life at Sea to have on board a safety certificate, the certification of subdivision, load line marks shall be made by letter to the cognizant Officer in Charge, Marine Inspection, U.S. Coast Guard.

[CGFR 65–50, 30 FR 16769, Dec. 30, 1965, as amended by CGFR 68–60, 33 FR 10077, July 12, 1968; CGD 79–023, 48 FR 51007, Nov. 4, 1983; CGD 88–070, 53 FR 34534, Sept. 7, 1988; USCG–2009–0702, 74 FR 49228, Sept. 25, 2009]

§ 46.10–15 Survey for the establishment and renewal of subdivision load line marks.

(a) Every passenger vessel to be marked with and certificated for subdivision load lines must comply with the requirements as set forth in subchapter H (Passenger Vessels) of this

chapter for ocean, coastwise, and Great Lakes service as applicable to the particular vessel and the service in which she is to be employed.

(b) Every passenger vessel marked with a subdivision load line shall be subjected to the surveys specified in this paragraph. The details of the surveys or inspections indicated in paragraphs (b)(1) through (3) of this section shall be as set forth in the applicable sections of part 71 of subchapter H (Passenger Vessels) of this chapter.

(1) A survey before the vessel is put in service.

(2) A periodical survey once every 12 months.

(3) Additional surveys as occasion arises.

(4) Surveys required by part 42, part 44, or part 45 of this subchapter.

[CGFR 65–50, 30 FR 16769, Dec. 30, 1965, as amended by CGFR 68–60, 33 FR 10077, July 12, 1968]

§ 46.10–20 Application for the assignment and renewal of subdivision load lines.

(a) Application for assignment and renewal of subdivision load lines and certification thereof shall be made in writing to the Commandant, U.S. Coast Guard, Washington, D.C. 20593–0001.

[CGFR 65–50, 30 FR 16769, Dec. 30, 1965, as amended by CGFR 68–60, 33 FR 10077, July 12, 1968; CGD 88–070, 53 FR 34534, Sept. 7, 1988]

§ 46.10–25 Equivalents.

(a) Where in the regulations in this part it is provided that a particular fitting, appliance, apparatus, or type thereof, shall be fitted or carried in a vessel engaged on foreign voyages by sea or that any particular arrangement shall be adopted, there may be substituted any other fitting or appliance or type thereof or any other arrangement provided that the Commandant, U.S. Coast Guard, shall have been satisfied by suitable trials that the fitting, appliance, or apparatus, or type thereof, or that the arrangement substituted is at least as effective as that specified in this part.

(b) Where, in the application of the regulations in this part to passenger vessels engaged in coastwise voyages by sea and on Great Lakes voyages, it is desired to substitute other construction, arrangement, fitting, or appliance, or type thereof, such substitution may be made if approved by the Commandant, U.S. Coast Guard, provided the degree of safety provided by this part is obtained.

§ 46.10–30 Subdivision load line certificates.

(a) Passenger vessels engaged in foreign voyages by sea shall have their subdivision load lines certified on the safety certificate required by the International Convention for Safety of Life at Sea, 1960. Safety certificates shall be issued by the Commandant, U.S. Coast Guard, for a period not to exceed one year. These vessels will also be provided with the load line certificate required by part 42 of this subchapter, the minimum freeboard shown thereon to be not less than the minimum freeboard corresponding to the principal passenger condition. The fact that they are subdivision load lines is to be noted on the load line certificate.

(b) Passenger vessels engaged on coastwise voyages by sea or Great Lakes voyages shall have the position of their subdivision load lines recorded on a load line certificate in the form required by part 42 or part 45 of this subchapter. The fact that they are subdivision load lines is to be noted on the load line certificate.

(c) A note shall be added to the load line certificate below the signature of the assigning—authority in the following form:

> The bulkhead deck used for determining the position of the subdivision load lines certified above is _____ (here described bulkhead deck).

(d) Annual inspections of passenger vessels shall be as required by §§ 42.09–40 and 46.10–15 of this subchapter and renewal of passenger vessels' load line certificates shall be as required by §§ 42.09–15 and 42.09–20.

(e) Each new passenger vessel which receives its first load line certificate shall also be provided with a copy of the load line survey report as required

by § 42.09–1(c) or § 45.01–30 of this subchapter.

[CGFR 65–50, 30 FR 16769, Dec. 30, 1965, as amended by CGFR 68–60, 33 FR 10077, July 12, 1968; CGFR 68–126, 34 FR 9019, June 5, 1969; CGD 80–120, 47 FR 5723, Feb. 8, 1982; CGD 88–070, 53 FR 34534, Sept. 7, 1988]

§ 46.10–35 Validity of subdivision load line certificates.

(a) Subdivision load line certificates issued to passenger vessels shall only be valid during the time for which the certificates are issued.

(b) If, due to any cause, the conditions as required by this part are changed, or the regulations in this part are not carried out, the load line certificate may be cancelled and the load lines considered nonexistent*: Provided*, That if the conditions causing the cancellation of the certificate are satisfactorily corrected, the load line certificate shall be reinstated for the remainder of its term.

(c) A valid subdivision load line certificate for foreign voyages by sea shall be valid for coastwise voyages by sea and Great Lakes voyages. A valid subdivision load line certificate for coastwise voyages by sea shall be valid for Great Lakes voyages but not for foreign voyages by sea. A valid subdivision load line certificate for Great Lakes voyages shall not be valid for foreign or coastwise voyages by sea.

§ 46.10–40 Nonsubmergence subdivision load line (Great Lakes).

(a) Passenger vessels on the Great Lakes of 150 gross tons or over shall not submerge the subdivision load line applicable to the voyage.

§ 46.10–45 Nonsubmergence subdivision load lines in salt water.

(a) Passenger vessels required to be marked with subdivision load lines, engaged on foreign and coastwise voyages other than the Great Lakes voyages, shall not submerge in salt water the subdivision load line applicable to the voyage. Passenger vessels engaged on ocean, foreign or coastwise voyages may be marked with fresh water load lines. A passenger vessel on foreign or coastwise voyages (except Great Lakes voyages) may have an allowance made for the degree of brackishness of the water in which the vessel is floating but not for the weight of fuel, water, etc., required for consumption between the point of departure and the open sea, and no allowance is to be made for bilge or ballast water that may be in the passenger vessel at the time of departure.

§ 46.10–50 Drills and inspections.

(a) For the required drills and inspections to be conducted on passenger vessels, see subpart 78.17 of subchapter H (Passenger Vessels) of this chapter.

§ 46.10–55 Logbook entries.

(a) For required logbook entries to be made on passenger vessels, see subpart 78.17 of subchapter H (Passenger Vessels) of this chapter.

§ 46.10–60 Control.

(a) The District Director of Customs or the Coast Guard District Commander may detain a passenger vessel for a survey if there is reason to believe that such a vessel is proceeding on her journey in excess of the draft allowed by the regulations in this part as indicated by the vessel's load lines certified on the safety certificate, load line certificate, or otherwise. The Coast Guard District Commander may detain a passenger vessel if it is so loaded as to be manifestly unsafe to proceed to sea. Except as otherwise required by this section, § 42.07–60 if this subchapter applies to all passenger vessels assigned load lines under the load line acts and the regulations of this subchapter.

[CGFR 68–126, 34 FR 9019, June 5, 1969]

§ 46.10–65 Construction.

(a) The watertight subdivision of every passenger vessel must be as efficient as possible, having regard to its intended service. This principle is given effect by applying the requirements in part 171 of this chapter.

(b) Passenger vessels engaged in foreign voyages by sea or coastwise voyages by sea or voyages on the Great Lakes, to be marked with subdivision

load lines shall comply with the requirements in this part.

[CGFR 65–50, 30 FR 16769, Dec. 30, 1965, as amended by CGD 79–023, 48 FR 51007, Nov. 4, 1983]

§46.10–70 Plans and inspections of new and converted vessels.

(a) Plans for a new passenger vessel or a vessel to be converted to a passenger vessel shall be submitted to the Commandant as required by subpart 71.65 of subchapter H (Passenger Vessels) of this chapter.

(b) Inspections shall be made during the construction or conversion of the vessel as required by subpart 71.20 of subchapter H (Passenger Vessels) of this chapter.

(c) Upon completion of construction or conversion of a passenger vessel, a stability test must be performed and stability information must be supplied to the operator as required by part 170 of this chapter.

[CGFR 65–50, 30 FR 16769, Dec. 30, 1965, as amended by CGD 79–023, 48 FR 51007, Nov. 4, 1983]

Subpart 46.15—Subdivision Load Lines for Passenger Vessels Engaged in Foreign, Coastwise, and Great Lakes Voyages

§46.15–1 Procedure for determination of subdivision load line.

The procedure for determining the subdivision load line as well as special construction features of the vessel must be as set forth in subpart 72.01 and parts 170 and 171 of this chapter.

[CGD 79–023, 48 FR 51007, Nov. 4, 1983]

§46.15–5 Engineering requirements.

(a) Bilge and ballast systems, piping, inlets and discharges, ash chutes, astern power, and auxiliary steering shall be in accordance with the provisions of subchapter F (Marine Engineering) of this chapter.

§46.15–10 Subdivision load lines.

(a) Subdivision load lines shall be located by measuring vertically down from the deck line required by part 42 of this subchapter.

(b) The length, width, and manner of marking the lines shall be as provided in subpart 42.13 of this subchapter.

(c) No subdivision load line is to be placed so that the freeboard is reduced from that determined by the highest seasonal mark permitted by part 42.

(d) When the highest subdivision load line is located on a vessel used as a passenger vessel in a position between the highest and lowest seasonal load line marks, the seasonal load line marks above the subdivision load line will be omitted and those below will be marked.

(e) When the freeboard from the highest subdivision load line on a vessel used as a passenger vessel is greater than the freeboard from the lowest load line permitted by part 42 of this subchapter, the load lines required by part 42 of this subchapter shall be omitted and the disk with its horizontal line located in line with the highest subdivision load line.

(f) One fresh water line shall be marked. When a subdivision and a normal load line are combined, the normal fresh water line only shall be used unless the position of the subdivision load line is such that confusion will result, in which case a subdivision fresh water line may be used, marked FC_1 and the normal fresh water line omitted.

(g) Subdivision load lines shall be aft of the vertical line. The vertical line shall be extended as necessary to connect the lowest and highest load lines marked on the vessel.

(h) When a vessel has spaces used for cargo and passengers alternatively so that the position of the subdivision load line varies with the service, subdivision load lines for the principal passenger condition shall be marked and denoted by C_1 and the alternative conditions marked and denoted by C_2, C_3, etc. The position of each load line and the conditions under which a particular load line is applicable shall be noted in the certificate.

(i) The principal passenger condition for a vessel having spaces used for passengers and cargo alternatively is the condition where only those spaces appropriated exclusively to passengers are taken into consideration for determination of the subdivision load line.

(j) For Great Lakes vessels, references to part 42 shall read part 45 and a ''diamond'' shall be substituted for the ''disk''. No ''fresh water'' line will be marked.

[CGFR 65–50, 30 FR 16769, Dec. 30, 1965, as amended by CGFR 68–60, 33 FR 10077, July 12, 1968]

PART 47—COMBINATION LOAD LINES

Subpart A—General

Subparts B–E [Reserved]

Subpart F—International and Great Lakes Service; Stability Limited Deck Cargo Barges

Subpart G [Reserved]

AUTHORITY: 46 U.S.C. 5115; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGD 86–016, 51 FR 9962, Mar. 24, 1986, unless otherwise noted.

Subpart A—General

§ 47.100 Purpose.

(a) The purpose of the regulations in this part is to set forth simplified alternative marking schemes for those vessels operating in more than one service. Operating requirements for a given vessel could vary depending on the service, the season of the year, stability requirements, manning requirements and tonnage requirements. The conditions of assignment, restrictions applicable, form of the certificate and the load line marks are described.

§ 47.110 Definitions used in this part.

(a) *International service* means:

(1) A voyage by sea between a port under the jurisdiction of the United States and a port of a foreign country, its colonies, territories, or protectorates, or conversely (a voyage exclusively on the Great Lakes is excepted); or

(2) A voyage that proceeds beyond 20 nautical miles from the territorial sea baseline.

(b) *Great Lakes service* means a voyage from a United States port or place on the Great Lakes to another United States port or place on the Great Lakes or to a Canadian port or place on the Great Lakes, or conversely. In concurrence with related Canadian regulations, the waters of the St. Lawrence River west of a rhumb line drawn from Cap de Rosiers to West Point, Anticosti Island, and west of a line along 63° W. Longitude from Anticosti Island to the north shore of the St. Lawrence River shall be considered as part of the Great Lakes. In addition, the Victoria Bridge, Montreal, Canada, is the dividing line between fresh water and salt water in the St. Lawrence River.

Subparts B–E [Reserved]

Subpart F—International and Great Lakes Service; Stability Limited Deck Cargo Barges

§ 47.600 Description of service.

This subpart applies to deck cargo barges operating in International and Great Lakes service and meeting the conditions of assignment in § 47.610 of this subpart.

§ 47.610 Conditions of assignment.

Owners or operators of deck cargo barges which are draft limited by the intact stability requirements of 46 CFR 174.015 (a)(1) and (a)(2) may elect to be assigned load lines under this subpart in order to load to a draft corresponding to the intact stability requirement of 10 foot-degrees (46 CFR 174.015(a)(2)) while engaging in Great Lakes service during the summer season.

§ 47.620 Load line marks.

(a) A plimsoll mark (disc and line through center) applicable to International service must be placed at the draft corresponding to 15-degrees of righting energy as calculated in fulfilling the requirements of 46 CFR 174.015(a)(1).

(b) The seasonal ladder representing summer, winter, and winter North Atlantic seasons must be as shown in Figure 1 below.

(c) An equivalent Great Lakes summer seasonal line must be placed on the seasonal ladder at the draft corresponding to 10 foot-degrees of righting energy as calculated in fulfilling the requirements of 46 CFR 174.015(a)(2) and be marked with a (T).

(d) The fresh water mark may be omitted by request of the owner or operator.

§ 47.630 Restrictions.

(a) The mark (T) applies only to Great Lakes service from May 1 through September 30.

(b) Notations are to be placed on the face of the load line certificate to the effect that:

(1) The barge must be operated in compliance with the draft vs. cargo vertical center of gravity tables in the U.S. Coast Guard approved stability letter, and

(2) The mark (T) is applicable only for Great Lakes service from May 1 through September 30 as per 46 CFR 45.9

§ 47.640 Form of certificate.

The form of the certificate is as specified in § 42.50–5(b) of this subchapter with the exception that the illustrated load line marks are as shown in Figure 1 below.

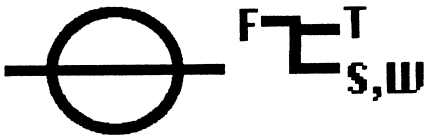


Figure 1. Load Line Marks

Subpart G [Reserved]