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PART II

Department of the Treasury

Coast Guard

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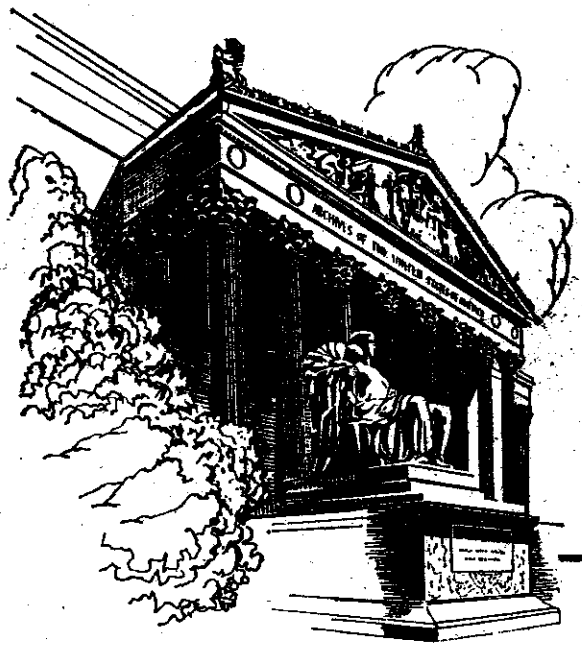
Vessel Inspection and Implementation of the International Convention for Safety of Life at Sea, 1960



Title 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

[CGFR 65-9]

VESSEL INSPECTION AND IMPLEMENTATION OF THE INTERNATIONAL CONVENTION FOR SAFETY OF LIFE AT SEA, 1960

Miscellaneous Amendments to Chapter

The President by Proclamation dated March 24, 1965, announced that the International Convention for Safety of Life at Sea, 1960 (SOLAS) (Treaties and Other International Acts, Series 5780), shall come into force and effect on May 26, 1965, and thereafter this Convention, with each and every article and clause thereof, shall be observed and fulfilled with good faith by the United States of America, by the citizens of the United States of America, and by all others subject to the jurisdiction thereof. For those matters relating to merchant vessels and currently administered by the Commandant, U.S. Coast Guard, the implementing regulations are in 46 CFR Chapter I. These regulations are prescribed pursuant to existing laws and in accordance with Executive Order No. 11239.

Pursuant to the notices of proposed rule making published in the FEDERAL REGISTER of January 30 and February 1, 1964 (29 F.R. 1572–1586, 1646), and January 27 and February 13 and 18, 1965 (30 F.R. 832–842, 2030, 2031, 2219, 2220), and the Merchant Marine Council Public Hearing Agenda, dated March 23, 1964, and March 22, 1965 (CG–249), the Merchant Marine Council held public hearings on March 23, 1964, and March 22, 1965, for the purpose of receiving comments, views, and data. This document contains most of the changes required in 46 CFR Chapter I in order that these regulations will be in agreement with the provisions in the 1960 SOLAS Convention. These regulations are based on proposals in Item XII (vol. II) considered at the public hearing held March 23, 1964, and in various items considered at the public hearing held March 22, 1965.

This document is the second of a series regarding the regulations and actions considered at the 1965 public hearing and annual session of the Merchant Marine Council. This document contains the actions taken with respect to the following:

ITEM IV—INSPECTED VESSELS

IVa. Vent systems for Grades D and E liquid cargo tanks on tank vessels.
IVb. Decking within surgical operating rooms on passenger vessels.
IVc. Automatic sprinkler pumps; source of electrical power supply; on passenger vessels (1960 SOLAS).
IVd. Limitations on the use of fire hoses on cargo vessels.
IVe. Feeders required in loading and stowage of grain cargoes (1960 SOLAS).
IVf. Combustible gas indicators on tank vessels carrying Grade E liquids.
IVg. Automated or partially automated steam propelled vessels.

ITEM V—LIFESAVING APPLIANCES AND FIRE PRECAUTIONS

Va. Equipment for inflatable liferafts.
Vb. Steam smothering in boiler casings.

ITEM VI—MARINE ENGINEERING

VIa. Definition of terms in formula for calculating opening reinforcement in pressure vessels.
VIb. Pipe expansion and flexibility.
VIc. Fuel oil relief valve discharge.
VId. Pneumatic testing of unfired pressure vessels.

ITEM VII—ELECTRICAL ENGINEERING

VIIa. Reference specifications and publications.
VIIb. Insulation materials.
VIIc. Storage batteries.
VIId. Motor controllers.
VIIe. Overcurrent protection.
VIIf. Electrical cable.
VIIg. Attachment plugs and portable cable.
VIIh. Lighting fixtures.
VIIi. Emergency lighting and power systems.
VIIj. Sound powered telephones.

ITEM X—SPECIFICATIONS AND APPROVALS OF EQUIPMENT

Xa. Cork and balsa wood life preservers and withdrawal of approvals therefor.
Xc. Ring life buoys.
Xd. Lifeboats and their equipment, and rescue boats.
Xe. Inflatable liferafts.
Xf. Equipment for lifeboats and liferafts.
Xg. Fire protection and precaution.
Xh. Vessel construction materials.

ITEM XI—PRESSURE VESSELS

XIa. Acceptance of additional copper nickel alloy material for pressure vessels.
XIb. Hydrostatic testing of unfired pressure vessels.

Commandant's actions. The proposals designated IVc, IVd, VIa, VIb, VIIe, VIIg, Xa, Xe, and XIa in the above list are approved as published in the Agenda (CG–249), and the regulations are set forth in this document. Those proposals designated IVb, IVf, Va, Vb, VIc, VId, VIIa, VIIb, VIIc, VIIf, VIIh, VIIi, VIIj, Xc, Xd, Xf, Xg, Xh, and XIb, as revised, are approved and set forth in this document. The proposals designated IVa and VIId are withdrawn. The proposals designated IVe and IVg are tabled for further study. The actions of the Merchant Marine Council with respect to comments received on these proposals are approved.

The proposals in Item XII (vol. II) of the 1964 Merchant Marine Council Public Hearing Agenda, as revised, are approved and set forth in this document, as well as necessary changes in other regulations in order to have uniformity in administration of the inspection laws as required by section 372 of Title 46, U.S. Code.

Background. The International Convention for Safety of Life at Sea, 1960 (SOLAS), is the result of the fourth International Conference on the Safety of Life at Sea held in London from May 17 to June 17, 1960. This Conference was called primarily to take advantage of the many technological advances which had been made since the 1948 Convention was drafted and adopted.

Since the 1960 SOLAS Convention supersedes the 1948 SOLAS Convention on May 26, 1965, the vessel inspection rules and regulations in 46 CFR Chapter I were reviewed and changes made so that these requirements will give force and effect to those portions of the 1960 SOLAS Convention which apply to merchant vessels of the United States. Where necessary the authority notes have been revised to include an appropriate reference to the Executive Order directing the various Federal agencies to carry out the administration responsibilities assumed under this Convention. Many vessel inspection rules and regulations did not have to be amended because of the similarity of requirements for certain subjects in the 1960 SOLAS Convention when compared with the 1948 SOLAS Convention. Therefore, such rules and regulations are continued in effect without modification.

The vast majority of changes in the rules and regulations in this document concern passenger ships carrying more than 12 passengers, tankships and cargo ships of 500 gross tons or more, and all ships provided with nuclear powerplants. These amendments are to the requirements in 46 CFR Parts 70 to 78 (Subchapter H—Passenger Vessels) (CG–256, Rules and Regulations for Passenger Vessels); Parts 90 to 98 (Subchapter I—Cargo and Miscellaneous Vessels) (CG–257, Rules and Regulations for Cargo and Miscellaneous Vessels); and Parts 30 to 35 (Subchapter D—Tank Vessels) (CG–123, Rules and Regulations for Tank Vessels). Minor changes were necessary in 46 CFR Parts 50 to 61 (Subchapter F—Marine Engineering) (CG–115, Marine Engineering Regulations and Material Specifications); and Parts 110 to 113 (Subchapter J—Electrical Engineering) (CG–259, Electrical Engineering Regulations). Revised procedures, minor changes to have uniformity in wording of requirements, appropriate cross references, and editorial changes were made throughout the chapter, but in particular in 46 CFR Parts 2, 24, 110, 175, and 176. In addition, the various specifications governing the manufacture of required items of equipment or processing of materials for use on merchant vessels, and the granting of approvals in specified instances are set forth in 46 CFR Parts 160 to 164 (Subchapter Q—Specifications).

Application of regulations. In the administration of the rules and regulations with respect to certain subjects, distinctions will be made between "existing vessels" and "new vessels." Therefore, various portions of the regulations (other than in the Tank Vessel Regulations) are generally set forth in terms of vessels or installations "contracted for" prior to, or on or after, a certain date. The term "contracted for" was adopted as being more definite than terms such as "keel laid" or "construction started." However, it should be noted that the provisions of the 1960 SOLAS Convention are stipulated in terms of "keel laid," and accordingly, in the case of vessels engaging upon an international voyage, the specific requirements of the

1960 SOLAS Convention must be considered in terms of the date of the laying of the keel rather than the date of the signing of the contract. As the number of vessels involved in this confusion of terms is fairly small, little difficulty should be encountered. However, it is important to note that for some time after the new regulations in this document are in effect, vessels will be completed and receive their first certificates, but for the purpose of the regulations they will be "existing vessels."

In writing the new or revised regulations in this document, it was assumed that each "existing vessel" was in complete compliance with all of the applicable existing requirements. This being the case, no change is contemplated for such vessels other than some items specifically required by the text of these regulations; however, if any such vessel is not in compliance with all the existing requirements, it should be brought up to the existing standards.

In writing the regulations in this document many of them are written specifically for new vessels or new installations. Many of the subparts of regulations for passenger, cargo and miscellaneous vessels (46 CFR Parts 70 to 78 and 90 to 98) have as their concluding section the applicable requirements for existing vessels. For convenience it should be noted that the ending number in such section identification is usually "90." In most cases, instead of giving or repeating the detailed requirements for existing vessels or installations, the regulations state that the existing arrangements and materials previously accepted or approved will be considered satisfactory so long as they are serviceable and maintained in good condition. The advantage of this method is that it preserves the current status on arrangements and details which have been previously accepted without an excessive amount of wording necessary to take care of the many special cases which have been acted upon in the past.

Certain items of new equipment primarily necessitated by the 1960 SOLAS Convention, such as the 15-minute floating orange smoke distress signal, the emergency fishing tackle kits, and lifeboat protecting covers, may not be available on May 26, 1965. Further, although certain items necessitated by the 1960 SOLAS Convention may be commercially available, such as the desalter kit or the international shore connection, the procurement or installation of such items may require some time. Accordingly, a reasonable time will be given to bring the vessel into compliance. For the time being the lack of such items of equipment will not be considered as sufficient reason for denial of the 1960 SOLAS Convention certificates or the certificate of inspection; however, it is believed reasonable and practicable to require compliance in this respect as soon as possible.

The specification regulations for cork and balsa wood life preservers in 46 CFR 160.003–1 to 160.003–7, inclusive, and 160.004–1 to 160.004–7, inclusive, are canceled effective July 1, 1965. The life preservers built to the specification requirements in 46 CFR Subparts 160.003 and 160.004 fail to meet the standards for all life preservers with respect to supporting the head of an unconscious person properly and providing the desired turning moment of the wearers under the various conditions which may be encountered. The actions set forth in the Merchant Marine Council Public Hearing Agenda dated March 22, 1965, Item Xa (CG–249, pp. 94, 95) are approved.

The approvals of cork and balsa wood life preservers and the certificates of approvals for such life preservers issued in accordance with the specification regulations in 46 CFR Subparts 160.003 and 160.004 are withdrawn effective July 1, 1965.

Notwithstanding this withdrawal of approvals of cork and balsa wood life preservers since such life preservers will not comply with revised regulations, all such life preservers manufactured and approved pursuant to effective requirements prior to July 1, 1965, may be placed in service or continued in use so long as such life preservers are serviceable and in good condition to the satisfaction of the Officer in Charge, Marine Inspection: *Provided, however,* That such life preservers bearing basic Approval No. 160.003 or 160.004 shall not be considered as approved equipment meeting the requirements of the regulations for those passenger, cargo, and tank vessels constructed or contracted for on or after May 26, 1965, which are engaged on international voyages and subject to all of the requirements of the 1960 Safety of Life at Sea Convention.

The proposals to amend 46 CFR 33.10–5 (f)(1)(viii), 33.10–10(d), 75.25–10(b), 75.33–5(b), 94.25–10(b), and 94.33–5(b) were intended to give effect to the requirement in Regulation 29(g) in Chapter III of the 1960 SOLAS Convention regarding the use of a fore and aft loading component on lifeboat handling equipment which would result from a 10-degree trim of a vessel. It has been determined that these proposals gave an erroneous interpretation of the Convention requirements because they merely provided for longer falls while it was found that consideration of a "fore and aft 10-degree trim" imposed additional factors governing the strength of the davits which must be taken into consideration when designing and constructing davits. Therefore, the revised requirements to cover this point were transferred to the general requirements in 46 CFR 75.25–5 and 94.25–5 and the specification requirements in 46 CFR 160.032–3 and 160.032–5 governing the design, construction and manufacture of davits, which is in agreement with comments received on this subject.

The provisions regarding certificates required by the 1960 SOLAS Convention were revised and certain comments proposing that the American Bureau of Shipping be authorized to issue the Cargo Ship Safety Construction Certificate to American Bureau classed cargo and tankships are accepted. At the option of the owner or agent of a cargo or tankship on an international voyage, and on direct application to the American Bureau of Shipping, the Bureau may issue to such cargo or tankship a Cargo Ship Safety Construction Certificate. The requirements for Convention certificates issued by the Coast Guard, or the Cargo Ship Safety Construction Certificate issued by the American Bureau of Shipping at the option of the owner or agent, are set forth in this document and identified as 46 CFR 2.01–25, 31.40–1 through 31.40–45, 71.75–1 through 71.75–20, 91.60–1 through 91.60–45, and 176.35–1 through 176.35–30.

Method of administration. Beginning May 26, 1965, the 1960 SOLAS Convention certificates will be issued to passenger, cargo and tankships engaging on international voyages and subject to the Convention. After May 25, 1965, no more 1948 SOLAS Convention certificates will be issued. It is not intended that special inspections will be made for the purpose of determining that existing vessels are in compliance with the new requirements of the revised regulations in this document. However, as the various vessels come up for their regular inspection for certification after May 25, 1965, a determination of compliance with the new requirements will be made so that by May 26, 1966, passenger vessels, and by May 26, 1967, cargo and tank vessels will have been examined for compliance with the new or revised regulations.

By virtue of the authority vested in me as Commandant, U.S. Coast Guard, by section 632 of Title 14, U.S. Code, and Treasury Department Order 120 dated July 31, 1950 (15 F.R. 6521), and others specifically listed with the various regulations below, the following actions are ordered:

1. The vessel inspection regulations shall be amended in accordance with the changes in this document.

2. The amendments to the regulations shall be effective May 26, 1965, unless another date is specifically provided in this document.

3. The regulations in this document may be complied with during the period prior to the effective date specified in lieu of existing requirements.

4. The specification regulations in 46 CFR Subpart 162.039 in this document shall be effective January 1, 1966.

SUBCHAPTER A—PROCEDURES APPLICABLE TO THE PUBLIC

PART 2—VESSEL INSPECTIONS

Subpart 2.01—Inspecting and Certificating of Vessels

1. The authority note following Subpart 2.01 heading is amended to read as follows:

AUTHORITY: The provisions of this Subpart 2.01 interpret or apply R.S. 4417a, as amended, 4421, as amended, 4453, as amended, sec. 10, 35 Stat. 428, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 399, 435, 395, 367, 390h, 50 U.S.C. 198. Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659.

§ 2.01–7 [Amended]

2. Section 2.01–7 *Classes of vessels (including motorboats) examined or inspected and certificated* is amended by revising in footnote 6 in Table 2.01–7(a) in paragraph (a) the title from "International Convention for the Safety of Life at Sea, 1948," to "International Convention for Safety of Life at Sea, 1960."

3. Subpart 2.01 is amended by inserting after § 2.01–7 a new § 2.01–8 reading as follows:

§ 2.01–8 Application of regulations to vessels or tankships on an international voyage.

(a) Where, in various places or portions of this chapter, requirements are stipulated specifically for "vessels on an international voyage" or "tankships on an international voyage," it is intended that these requirements apply only to vessels or tankships, as applicable, which are subject to the International Convention for Safety of Life at Sea, 1960.

(b) For details regarding application of Convention requirements to tankships, see § 30.01–6 of this chapter; to passenger vessels, see § 70.05–10 of this chapter; to cargo ships other than tankships, see § 90.05–10 of this chapter; and to small passenger vessels, see § 176.35–1 of this chapter. (E.O. 11239).

4. Section 2.01–25 is amended to read as follows:

§ 2.01–25 International Convention for Safety of Life at Sea, 1960.

(a) *Certificates required.* (1) The International Convention for Safety of Life at Sea, 1960, requires one or more of the following certificates to be carried on board certain passenger, cargo or tankships engaged in international voyages:

(i) Passenger Ship Safety Certificate.

(ii) Cargo Ship Safety Construction Certificate.

(iii) Cargo Ship Safety Equipment Certificate.

(iv) Cargo Ship Safety Radiotelephony Certificate.

(v) Cargo Ship Radiotelegraphy Certificate.

(vi) Exemption Certificate.

(vii) Nuclear Passenger Ship Safety Certificate.

(viii) Nuclear Cargo Ship Safety Certificate.

(2) The U.S. Coast Guard will issue through the Officer in Charge, Marine Inspection, the following certificates after performing an inspection of the vessel and determining the vessel meets applicable requirements:

(i) Passenger Ship Safety Certificate.

(ii) Cargo Ship Safety Construction Certificate except when issued to cargo ships by American Bureau of Shipping at the option of the owner or agent.

(iii) Cargo Ship Safety Equipment Certificate.

(iv) Exemption Certificate.

(v) Nuclear Passenger Ship Safety Certificate.

(vi) Nuclear Cargo Ship Safety Certificate.

(3) When authorized by the Commandant, U.S. Coast Guard, the American Bureau of Shipping may issue to cargo and tankships which it classes the Cargo Ship Safety Construction Certificate.

(4) The Federal Communications Commission will issue the following certificates:

(i) Cargo Ship Safety Radiotelephony Certificate.

(ii) Cargo Ship Radiotelegraphy Certificate.

(iii) Exemption Certificate.

(b) *Applications.* (1) The application for inspection and issuance of a certificate or certificates is made on the appropriate form listed in § 2.01–1, or by letter, to the Officer in Charge, Marine Inspection, in or nearest the port at which the inspection is to be made and shall be signed by the master or agent of the vessel. The certificates previously issued are surrendered at the time the inspection is performed. Further details are set forth in Subchapter H (Passenger Vessels), Subchapter T (Small Passenger Vessels), Subchapter D (Tank Vessels) and Subchapter I (Cargo and Miscellaneous Vessels) of this chapter.

(2) The application for the inspection of a vessel other than a passenger vessel concerning the issuance of a Cargo Ship Safety Radiotelephony Certificate or a Cargo Ship Safety Radiotelegraphy Certificate is made by formal application on FCC Form 801 to the local office of the Federal Communications Commission.

(c) *Certificates issued.* (1) If a vessel meets the applicable requirements of the Convention, it shall be issued appropriate certificates listed in paragraph (a) of this section. These certificates describe the vessel and state the vessel is in compliance with the applicable requirements of the Convention.

(2) A Convention certificate may be withdrawn, revoked or suspended at any time when it is determined the vessel is no longer in compliance with applicable requirements. (See § 2.01–70 for appeal procedures.)

(d) *CG–969—Notice of Receipt of Application for Passenger Ship Safety Certificate.* (1) The Passenger Ship Safety Certificate is issued by the Commandant after determining all applicable requirements of the Convention have been met. In the event the completion of the certification of any passenger vessel cannot be effected prior to the sailing of the passenger ship on a foreign voyage, or in any case where the Passenger Ship Safety Certificate is not received from the Commandant before the ship sails on a foreign voyage, the Officer in Charge, Marine Inspection, will issue a completed Form CG–969, describing the passenger ship and certifying that an application for a Passenger Ship Safety Certificate is being processed, and that in his opinion the vessel meets applicable requirements of the Convention administered by the Coast Guard.

(2) The completed Form CG–969 may be exhibited in explanation of the failure of the passenger ship to have on board a current Passenger Ship Safety Certificate. This completed Form CG–969 may be accepted as prima facie evidence that the passenger ship described therein is in compliance with the applicable requirements of the Convention.

(e) *Exempted vessel.* (1) A vessel may be exempted by the Commandant from complying with certain requirements of the Convention under his administration upon request made in writing to him and transmitted via the Officer in Charge, Marine Inspection. In such case the exemptions are stated in the Exemption Certificate, which is issued by the Commandant through the appropriate Officer in Charge, Marine Inspection.

(2) The Exemption Certificate which modifies the Cargo Ship Safety Radiotelephony Certificate or the Cargo Ship Safety Radiotelegraphy Certificate is issued by the Federal Communications Commission.

(f) *Posting certificates.* The Convention certificates issued to a vessel shall be posted in a prominent and accessible place on the vessel in a manner similar to that for certificates of inspection.

(g) *Foreign flag vessels.* At the request of the government of a country in which is registered a vessel engaged in an international voyage, such a vessel may be issued the applicable certificate or certificates listed in paragraph (a) of this section. The certificate will be issued only after inspection has been made by the issuing agency, providing the vessel is found to comply with the requirements of the Convention.

Subpart 2.95—Retention of Records by the Public

5. The authority note following the subpart heading is amended to read as follows:

AUTHORITY: The provisions of this Subpart 2.95 also interpret or apply sec. 4, 67 Stat. 462, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 43 U.S.C. 1333(e), 46 U.S.C. 390b, 50 U.S.C. 198. Treasury Department Orders 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–15, Jan. 3, 1955, 20 F.R. 840; 167–20, June 18, 1956, 21 F.R. 4894.

PART 3—MERCHANT MARINE PERSONNEL

Subpart 3.01—Licenses and Documents

1. The authority note following the subpart heading is amended to read as follows:

AUTHORITY: The provisions of this Subpart 3.01 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply sec. 7, 49 Stat. 1936, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 689, 390b, 50 U.S.C. 198. Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20 June 18, 1956, 21 F.R. 4894.

Subpart 3.10—Disclosure of Information Regarding Shipment and Discharge of Merchant Mariners

2. The authority note following the subpart heading is amended to read as follows:

AUTHORITY: The provisions of this Subpart 3.10 issued under R.S. 4405, as amended, 4462, as amended, sec. 7, 49 Stat. 1936, as amended; 46 U.S.C. 375, 416, 689. Interpret or apply R.S. 4448, as amended, 4551, as amended, secs. 1, 2, 49 Stat. 1544, as amended, sec. 3, 70 Stat. 152, sec. 3, 60 Stat. 238, sec. 3,

68 Stat. 675; 46 U.S.C. 234, 643, 367, 390b, 5 U.S.C. 1002, 50 U.S.C. 198. Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-14, Nov. 26, 1954, 19 F.R. 8026; 167-20, June 18, 1956, 21 F.R. 4894.

Subpart 3.13—Shipment and Discharge of Seamen

3. The authority note following the subpart heading is amended to read as follows:

AUTHORITY: The provisions of this Subpart 3.13 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply sec. 7, 49 Stat. 1936, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 689, 50 U.S.C. 198. Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-14, Nov. 26, 1954, 19 F.R. 8026.

Subpart 3.15—Arbitration by Shipping Commissioners

4. The authority note following the subpart heading is amended to read as follows:

AUTHORITY: The provisions of this Subpart 3.15 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply sec. 7, 49 Stat. 1936, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 689, 50 U.S.C. 198. Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-14, Nov. 26, 1954, 19 F.R. 8026.

Subpart 3.19—Effects of Deceased or Deserting Seamen

5. The authority note following the subpart heading is amended to read as follows:

AUTHORITY: The provisions of this Subpart 3.19 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply sec. 7, 49 Stat. 1936, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 689, 50 U.S.C. 198. Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-14, Nov. 26, 1954, 19 F.R. 8026.

SUBCHAPTER C—UNINSPECTED VESSELS

PART 24—GENERAL PROVISIONS

1. The authority for Part 24 is amended to read as follows:

AUTHORITY: The provisions of this Part 24 are issued under R.S. 4405, as amended, 4462, as amended, sec. 17, 54 Stat. 166, as amended; 46 U.S.C. 375, 416, 526p. Treasury Department Order 120, July 31, 1950, 15 F.R. 6521.

Subpart 24.05—Application

§ 24.05–1 [Amended]

2. Section 24.05–1 *Vessels subject to the requirements of this subchapter* is amended by revising in footnote 6 in Table 24.05–1(a) in paragraph (a) the title from "International Convention for the Safety of Life at Sea, 1948," to "International Convention for Safety of Life at Sea, 1960."

Subpart 24.10—Definition of Terms Used in This Subchapter

3. Section 24.10–13 is amended to read as follows:

§ 24.10–13 International voyage.

(a) The term "international voyage," as used in this subchapter, shall have the same meaning as that contained in Regulation 2(d), Chapter I, of the International Convention for Safety of Life at Sea, 1960; i.e., " 'International voyage' means a voyage from a country to which the present Convention applies to a port outside such country, or conversely; and for this purpose every territory for the international relations of which a Contracting Government is responsible or for which the United Nations are the administering authority is regarded as a separate country."

(b) The International Convention for Safety of Life at Sea, 1960, does not apply to vessels "solely navigating the Great Lakes of North America and the River St. Lawrence as far east as a straight line drawn from Cap de Rosiers to West Point, Anticosti Island and, on the north side of Anticosti Island, the 63d Meridian." Accordingly, such vessels shall not be considered as being on an "international voyage" for the purpose of this subchapter.

(c) For the purposes of this subchapter the term "territory" as used in paragraph (a) of this section shall be considered to include the Commonwealth of Puerto Rico, the Canal Zone, all possessions of the United States, and all lands held by the United States under a protectorate or mandate.

(d) Although voyages between the continental United States and Hawaii or Alaska, and voyages between Hawaii and Alaska are not "international voyages" under the provisions of the International Convention for Safety of Life at Sea, 1960, such voyages are similar in nature and shall be considered as "international voyages" and subject to the same requirements for the purposes of this subchapter.

Subpart 24.15—Equivalents

4. Section 24.15–1(a) is amended to read as follows:

§ 24.15–1 Conditions under which equivalents may be used.

(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 any particular provision shall be made or arrangement shall be adopted, the Commandant may accept in substitution therefor any other fitting, material, apparatus, or equipment, or type thereof, or any other arrangement: *Provided*, That he shall have been satisfied by suitable trials that the fitting, material, appliance, apparatus, or equipment, or type thereof, or the provision or arrangement is at least as effective as that specified in this subchapter.

* * * * *

PART 25—REQUIREMENTS

1. The authority for Part 25 is amended to read as follows:

AUTHORITY: The provisions of this Part 25 are issued under R.S. 4405, as amended, 4462, as amended, sec. 17, 54 Stat. 166, as amended; 46 U.S.C. 375, 416, 526p. Treasury Department Order 120, July 31, 1950, 15 F.R. 6521. Additional authority cited with section affected.

Subpart 25.25—Life Preservers and Other Lifesaving Equipment

2. Section 25.25–5 is amended by revising paragraphs (c) and (e) to read as follows:

§ 25.25–5 General provisions.

* * * * *

(c) All life preservers shall be of an approved type, constructed in accordance with the applicable provisions of Subpart 160.002, 160.005 or 160.055 of Subchapter Q (Specifications) of this chapter.

(1) All kapok and fibrous glass life preservers which do not have plastic-covered pad inserts as required by Subparts 160.002 and 160.005 shall not be acceptable as equipment required by this subchapter.

(2) Cork and balsa wood life preservers, constructed in accordance with the applicable provisions of Subpart 160.003 or 160.004 and manufactured as approved life preservers prior to July 1, 1965, may be accepted as new or replacement equipment required by this subchapter providing such life preservers are serviceable and in good condition.

* * * * *

(e) All buoyant cushions shall be of an approved type, constructed in accordance with the applicable provisions of Subpart 160.048 or 160.049 of Subchapter Q (Specifications) of this chapter.

(1) All kapok and fibrous glass buoyant cushions which do not have plastic-covered pad inserts as required by Subpart 160.048 shall not be acceptable as equipment required by this subchapter.

* * * * *

3. Section 25.25–90 is amended to read as follows:

§ 25.25–90 Vessels contracted for prior to November 19, 1952.

(a) Vessels contracted for prior to November 19, 1952, shall meet the applicable provisions of §§ 25.25–5 through 25.25–15 insofar as the number of items of equipment and the method of stowage are concerned.

(b) Existing items of equipment, previously approved, but not meeting the applicable specifications may be continued in service so long as they are serviceable and in good condition, except that:

(1) All kapok and fibrous glass life preservers which do not have plastic-covered pad inserts as required by Subparts 160.002 and 160.005 shall not be acceptable as equipment required by this subchapter.

(2) All kapok and fibrous glass buoyant cushions which do not have plastic-covered pad inserts as required by Subpart 160.048 shall not be acceptable as equipment required by this subchapter.

(c) All new installations and replacements shall meet the applicable requirements or specifications as described in §§ 25.25–5 through 25.25–15.

PART 26—OPERATIONS

1. The authority for Part 26 is amended to read as follows:

AUTHORITY: The provisions of this Part 26 are issued under R.S. 4405, as amended, 4462,

as amended, sec. 17, 54 Stat. 166, as amended; 46 U.S.C. 375, 416, 526p. Treasury Department Order 120, July 31, 1950, 15 F.R. 6521. Additional authority is cited with sections affected.

Subpart 26.15—Boarding

§ 26.15–1 [Amended]

2. Section 26.15–1 *May board at any time* is amended by adding a reference to the Treasury Department Order of delegation to the additional authority cited after § 26.15–1(c) so this authority reads as follows:

(Interpret or apply sec. 7, 72 Stat. 1757; 46 U.S.C. 527d. Treasury Department Order 167–32, Sept. 23, 1958, 23 F.R. 7605)

SUBCHAPTER D—TANK VESSELS

PART 30—GENERAL PROVISIONS

1. The authority for Part 30 is amended to read as follows:

AUTHORITY: The provisions of this Part 30 issued under R.S. 4405, as amended, 4417a, as amended, 4462, as amended; 46 U.S.C. 375, 391a, 416. Interpret or apply sec. 3, 68 Stat. 675; 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026. Additional authority cited is in parentheses following the sections affected.

Subpart 30.01—Administration

§ 30.01–5 [Amended]

2. Section 30.01–5 *Application of regulations—TB/ALL* is amended by revising in paragraph (e)(1) and in footnote 6 in Table 30.01–5(d) in paragraph (d) the title from "International Convention for Safety of Life at Sea, 1948," to "International Convention for Safety of Life at Sea, 1960."

3. Subpart 30.01 is amended by inserting after § 30.01–5 a new section reading as follows:

§ 30.01–6 Application of regulations to tankships on an international voyage—T/ALL.

(a) Where, in various places or portions of this subchapter, requirements are stipulated specifically for "tankships on an international voyage," it is intended that these requirements apply only to tank ships subject to the International Convention for Safety of Life at Sea, 1960, which are mechanically propelled tank ships of 500 gross tons and over on an international voyage, as defined in § 30.10–36.

(b) In accordance with Regulation 4, Chapter I (General Provisions), of the International Convention for Safety of Life at Sea, 1960, a tank ship which is not normally engaged on an international voyage but which in exceptional circumstances, is required to undertake a single international voyage, may be exempted by the Commandant from any of the requirements of the regulations of this Convention: *Provided*, That it complies with safety requirements which are adequate, in his opinion, for the voyage which is to be undertaken.

(c) In accordance with Regulation 1(c), Chapter II (Construction), of the International Convention for Safety of Life at Sea, 1960, the Commandant may, if he considers that the sheltered nature and conditions of the voyage are such as to render the application of any specific requirements of Chapter II of this Convention unreasonable or unnecessary, exempt from those requirements individual tankships or classes of tankships, which in the course of their voyage do not proceed more than 20 miles from the nearest land.

(d) In accordance with Regulation 3(a), Chapter III (Lifesaving Appliances, etc.), of the International Convention for Safety of Life at Sea, 1960, the Commandant, if he considers that the sheltered nature and conditions of the voyage are such as to render the application of the full requirements of Chapter III of this Convention unreasonable or unnecessary, may to that extent exempt from the requirements of Chapter III individual tankships or classes of tankships which, in the course of their voyage, do not go more than 20 miles from the nearest land.

Subpart 30.10—Definitions

3. Section 30.10–36 is amended to read as follows:

§ 30.10–36 International voyage—TB/ALL.

(a) The term "international voyage," as used in this subchapter, shall have the same meaning as that contained in Regulation 2(d), Chapter I, of the International Convention for Safety of Life at Sea, 1960; i.e., " 'International voyage' means a voyage from a country to which the present Convention applies to a port outside such country, or conversely; and for this purpose every territory for the international relations of which a Contracting Government is responsible or for which the United Nations are the administering authority is regarded as a separate country."

(b) The International Convention for Safety of Life at Sea, 1960, does not apply to tank vessels "solely navigating the Great Lakes of North America and the River St. Lawrence as far east as a straight line drawn from Cap de Rosiers to West Point, Anticosti Island and, on the north side of Anticosti Island, the 63d Meridian." Accordingly, such tank vessels shall not be considered as being on an "international voyage" for the purposes of this subchapter.

(c) For the purposes of this subchapter the term "territory" as used in paragraph (a) of this section shall be considered to include the Commonwealth of Puerto Rico, the Canal Zone, all possessions of the United States, and all lands held by the United States under a protectorate or mandate.

(d) Although voyages between the continental United States and Hawaii or Alaska, and voyages between Hawaii and Alaska are not "international voyages" under the provisions of the International Convention for Safety of Life at Sea, 1960, such voyages are similar in nature and shall be considered as "international voyages" and subject to the same requirements for the purposes of this subchapter.

4. Subpart 30.10 is amended by inserting after § 30.10–43 a new section reading as follows:

§ 30.10–44 Nuclear vessel—TB/ALL.

A nuclear vessel is a vessel provided with a nuclear powerplant for propulsion or any other purpose, or any vessel handling or processing substantial amounts of radioactive material other than as cargo.

Subpart 30.15—Equivalents

5. Section 30.15–1(a) is amended to read as follows:

§ 30.15–1 Conditions under which equivalents may be used—TB/ALL.

(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 any particular provision shall be made or arrangement shall be adopted, the Commandant may accept in substitution therefor any other fitting, material, apparatus, or equipment, or type thereof, or any other arrangement: *Provided*, That he shall have been satisfied by suitable trials that the fitting, material, appliance, apparatus, or equipment, or type thereof, or the provision or arrangement is at least as effective as that specified in this subchapter.

* * * * *

PART 31—INSPECTION AND CERTIFICATION

1. The authority for Part 31 is amended to read as follows:

AUTHORITY: The provisions of this Part 31 issued under R.S. 4405, as amended, 4417a, as amended, 4462, as amended; 46 U.S.C. 375, 391a, 416. Interpret or apply sec. 3, 68 Stat. 675; 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026. Additional authority cited is in parentheses following the sections affected.

Subpart 31.01—General

2. Section 31.01–1 is amended to read as follows:

§ 31.01–1 Inspections required—TB/ALL.

(a) Every tank vessel subject to the regulations in this subchapter shall be inspected biennially, or annually, or oftener, if necessary, by the Coast Guard to see that the hull, boilers, machinery, equipment, apparatus for storage, and appliances of the vessel comply with the marine inspection laws, and the regulations in this subchapter, and Subchapter E (Load Lines), Subchapter F (Marine Engineering), Subchapter J (Electrical Engineering), and Subchapter Q (Specifications) of this chapter where applicable.

(b) Tank vessels while laid up and dismantled and out of commission are exempt from any or all inspections required by law or regulations in this subchapter.

(c) For inspection and tests of tanks containing certain dangerous cargoes in bulk, see Part 98 of Subchapter I (Cargo and Miscellaneous Vessels) of this chapter.

3. Subpart 31.01 is amended by inserting after § 31.01–1 a new section reading as follows:

§ 31.01–5 Scope of initial inspection—TB/ALL.

(a) The initial inspection, which may consist of a series of inspections during the construction of a vessel, shall include a complete inspection of the structure, machinery, and equipment, including the outside of the vessel's bottom, and the inside and outside of the boilers. The inspection shall be such as to insure that the arrangements, materials, and scantlings of the structure, boilers and other pressure vessels and their appurtenances, piping, main and auxiliary machinery, electrical installations, lifesaving appliances, fire-detecting and extinguishing equipment, pilot ladders and other equipment fully comply with the applicable regulations for such vessel and are in accordance with approved plans, and that the radio installations, including fixed and portable radios for lifeboats, are in accordance with the requirements of the Federal Communications Commission. The inspection shall also be such as to insure that the workmanship of all parts of the vessel and its equipment is in all respects satisfactory and that the vessel is provided with lights, means of making sound signals and distress signals as required by applicable regulations and the applicable Rules of the Road.

(b) For nuclear vessels, the foregoing inspection shall be made except insofar as they may be limited by the presence of radiation. In addition, the inspection shall include any special requirements of the vessel's "Safety Assessment."

Subpart 31.05—Certificates of Inspection

4. Section 31.05–10(a) is amended to read as follows:

§ 31.05–10 Period covered by certificates of inspection—TB/ALL.

(a) Certificates of inspection will be issued for periods of either 1 or 2 years. For nuclear vessels, the period of validity shall be 1 year.

* * * * *

Subpart 31.10—Inspections

5. Section 31.10–15 is amended to read as follows:

§ 31.10–15 Inspection for certification—TB/ALL.

(a) The Officer in Charge, Marine Inspection, shall once in every 2 years, at least, and in the case of nuclear vessels, at least once every year carefully inspect such tank vessel within his jurisdiction and shall satisfy himself that every such vessel so inspected is of a structure suitable for the carriage of flammable and/or combustible liquids in bulk and for the proper grade or grades of such cargo in the service in which she is employed. If the Officer in Charge, Marine Inspection, deems it expedient, he may direct the vessel to be put in motion, and may adopt any other suitable means to test her sufficiency and that of her equipment.

(b) The inspection for certification shall include an inspection of the structure, boilers, and other pressure vessels, machinery and equipment. The inspection shall be such as to insure that the vessel, as regards the structure, boilers and other pressure vessels and their appurtenances, piping, main and auxiliary machinery, electrical installations, lifesaving appliances, fire-detecting and extinguishing equipment, pilot ladders, and other equipment is in satisfactory condition and fit for the service for which it is intended, and that it complies with the applicable regulations for such vessels, and that the radio installations, including fixed and portable radios for lifeboats, are in compliance with the requirements of the Federal Communications Commission. The lights and means of making sound signals and the distress signals carried by the vessel shall also be subject to the above mentioned inspection for certification for the purpose of insuring that they comply with the requirements of the applicable regulations and of the applicable Rules of the Road.

(c) For nuclear vessels, the foregoing inspections shall be made except insofar as they may be limited by the presence of radiation. In addition, the inspection shall include any special requirements of the vessel's "Safety Assessment."

6. Section 31.10–30 is amended to read as follows:

§ 31.10–30 Stability requirements—TB/ALL.

(a) *Application.* The provisions of this section shall apply to the following tank vessels:

(1) Any tankship of 500 gross tons and over on an international voyage, construction or conversion of which is started on or after November 19, 1952.

(2) Any other vessel whose stability is questioned by the Commandant or the Officer in Charge, Marine Inspection.

(b) *Stability test.* (1) The stability of each new tank vessel or class of vessels to which this section pertains shall be subject to review by the Commandant to determine whether or not a stability test is required. Where such a review involving a comparison with existing similar vessels, clearly indicates that due to the vessel's proportions and arrangements more than sufficient metacentric height will be available in all probable loading conditions, a stability test will not be required. Consistent with the foregoing principle, tank vessels will ordinarily not be required to be inclined if they have a molded beam in excess of 11 feet plus 1.5 times the molded depth, and further, if those vessels over 300 feet in length have two or more longitudinal bulkheads and those of 300 feet and less have at least one longitudinal bulkhead.

(2) The Commandant may allow the stability test of a tank vessel to be dispensed with provided basic stability data are available from the stability test of a sister vessel and it is shown to the satisfaction of the Commandant that reliable stability information for the exempted vessel can be obtained from such basic data.

(c) *Plans required.* (1) The following plans are essential for use in determining whether or not a stability test is to be required and should be made available as early as possible:

Lines plan.
Curves of form.
General arrangement plan of all decks and levels.
Inboard and outboard profile.
Midship section.

(2) If it is determined that a stability test is required, the following additional plans will be required:

Capacity plan showing capacities and vertical and longitudinal centers of gravity of all tanks and cargo spaces.
Tank sounding tables.
Draft mark locations.

(d) *Information supplied to master.* (1) Vessels which are exempted from a stability test in accordance with the provisions of subparagraph (b)(1) of this section will be provided with a stability letter recording this fact.

(2) Vessels for which a stability test is required or which are exempted from such a test in accordance with subparagraph (b)(2) of this section shall be provided with information, based upon the results of the applicable stability test, which is such that the master can, by rapid and simple process, obtain accurate guidance as to the stability of the vessel under varying conditions of service. Where special regard to particular operating conditions is necessary to assure safety of the vessel, full information relative thereto shall be included. The information required by this paragraph shall be submitted to the Commandant. Upon approval of this information, a stability letter recording this fact will be provided to the vessel.

(e) *Stability letter.* (1) Each tank vessel subject to the requirements of this section shall have posted under glass in the pilothouse a stability letter issued by the Coast Guard before the vessel is placed in service.

(2) Stability letters issued in accordance with subparagraph (d)(2) of this section will set forth the master's responsibility for maintaining satisfactory stability conditions at all times.

(f) *Alterations.* Where any alterations are made to a tank vessel so as to materially affect the stability information supplied to the master, amended stability information shall be provided. If necessary the vessel shall have a new stability test.

7. Subpart 31.40, consisting of § 31.40–1, is amended and amplified by revising the heading and text to read as follows:

Subpart 31.40—Certificates Under International Convention for Safety of Life At Sea, 1960

Sec.

§ 31.40–1 Application—T/ALL.

(a) The provisions of this subpart, with the exception of §§ 31.40–30 and 31.40–40(e), shall apply to all tankships on an international voyage other than nuclear vessels.

(b) The provisions of §§ 31.40–30, 31.40–35 and 31.40–40(e) shall apply to nuclear tankships on an international voyage.

§ 31.40–5 Cargo Ship Safety Construction Certificate—T/ALL.

(a) All tankships on an international voyage are required to have a Cargo Ship Safety Construction Certificate. This certificate shall be issued by the U.S. Coast Guard or the American Bureau of Shipping to certain vessels on behalf of the United States of America as provided in Regulation 12, Chapter I, of the International Convention for Safety of Life at Sea, 1960.

(b) All such tankships shall meet the applicable requirements of this chapter for tankships on an international voyage.

§ 31.40–10 Cargo Ship Safety Equipment Certificate—T/ALL.

(a) All tankships on an international voyage are required to have a Cargo Ship Safety Equipment Certificate.

(b) All such tankships shall meet the applicable requirements of this chapter for tankships on an international voyage.

§ 31.40–15 Cargo Ship Safety Radiotelegraphy Certificate—T/ALL.

(a) The application for a Cargo Ship Safety Radiotelegraphy Certificate is made on FCC Form 801 to the local office of the Federal Communications Commission.

(b) Where applicable, a Cargo Ship Safety Radiotelegraphy Certificate will be issued by the Federal Communications Commission to a tankship meeting its requirements for a tankship fitted with a radiotelegraph installation.

§ 31.40–20 Cargo Ship Safety Radiotelephony Certificate—T/ALL.

(a) The application for a Cargo Ship Safety - Radiotelephony Certificate is made on FCC Form 801 to the local office of the Federal Communications Commission.

(b) Where applicable, a Cargo Ship Safety Radiotelephony Certificate will be issued by the Federal Communications Commission to a tankship meeting its requirements for a tankship fitted with a radiotelephone installation.

§ 31.40–25 Exemption Certificate—T/ALL.

(a) A tankship may be exempted by the Commandant from complying with certain requirements of the Convention under his administration upon request made in writing to him and transmitted via the Officer in Charge, Marine Inspection.

(b) When an exemption is granted to a tankship by the Commandant under and in accordance with the Convention, an Exemption Certificate describing such exemption shall be issued through the appropriate Officer in Charge, Marine Inspection, in addition to other required certificates.

§ 31.40–30 Nuclear Cargo Ship Safety Certificate—T/ALL.

(a) All nuclear tankships on an international voyage are required to have a Nuclear Cargo Ship Safety Certificate.

(b) All such ships shall meet the applicable requirements of this chapter for nuclear vessels on an international voyage.

(c) Nuclear vessels cannot be exempted from any requirements of the Convention.

§ 31.40–35 Posting of Convention certificates—T/ALL.

(a) The certificates described in this subpart, or certified copies thereof, when issued to a vessel shall be posted in a prominent and accessible place on the tankship.

(b) The certificates shall be carried in a manner similar to that described in § 31.05–5 for a certificate of inspection.

§ 31.40–40 Duration of Convention certificates—T/ALL.

(a) A Cargo Ship Safety Equipment Certificate shall be issued for a period of not more than 24 months.

(b) A Cargo Ship Safety Construction Certificate shall be issued for a period of not more than 60 months.

(c) A Cargo Ship Safety Radiotelegraphy Certificate and a Cargo Ship Safety Radiotelephony Certificate shall be issued for a period of not more than 12 months.

(d) An Exemption Certificate shall not be valid for longer than the period of the certificate to which it refers.

(e) The Nuclear Cargo Ship Safety Certificate shall be issued for a period of not more than 12 months.

(f) A Convention certificate may be withdrawn, revoked, or suspended at any time when it is determined the vessel is no longer in compliance with applicable requirements. (See § 2.01–70 of this chapter for procedures governing appeals.)

§ 31.40–45 American Bureau of Shipping—T/ALL.

(a) The American Bureau of Shipping, with its home office at 45 Broad Street, New York, N.Y., 10004, is hereby designated as an organization duly authorized to issue the "Cargo Ship Safety Construction Certificate" to certain tankships on behalf of the United States of America as provided in Regulation 12, Chapter I, of the International Convention for Safety of Life at Sea, 1960, and Executive Order 11239 and the certificate shall be subject to the requirements in this subpart. The American Bureau of Shipping is authorized to place the official seal of the United States of America on the certificate. This designation and delegation to the American Bureau of Shipping shall be in effect from May 26, 1965, until terminated by proper authority and notice of cancellation is published in the FEDERAL REGISTER.

(b) At the option of the owner or agent of a tankship on an international voyage and on direct application to the American Bureau of Shipping, the Bureau may issue to such tankship a Cargo Ship Safety Construction Certificate, having a period of validity of not more than 60 months after ascertaining that the tankship:

(1) Has met the applicable requirements of the Convention; and,

(2) Is currently classed by the Bureau and classification requirements have been dealt with to the satisfaction of the Bureau.

(c) When the Bureau determines that a tankship to which it has issued a Cargo Ship Safety Construction Certificate no longer complies with the Bureau's applicable requirements for classification, the Bureau shall immediately furnish to the Coast Guard all relevant information, which will be used by the Coast Guard to determine whether or not to withdraw, revoke or suspend the Cargo Ship Safety Construction Certificate.

(Sec. 25, 41 Stat. 998, as amended, sec. 701, 62 Stat. 731, as amended; 46 U.S.C. 881, 18 U.S.C. 701)

PART 32—SPECIAL EQUIPMENT, MACHINERY, AND HULL REQUIREMENTS

1. The authority for Part 32 is amended to read as follows:

AUTHORITY: The provisions of this Part 32 issued under R.S. 4405, as amended, 4417a, as amended, 4462, as amended; 46 U.S.C. 375, 391a, 416. Interpret or apply sec. 3, 68 Stat. 675; 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026.

PART 33—LIFESAVING APPLIANCES

1. The authority for Part 33 is amended to read as follows:

AUTHORITY: The provisions of this Part 33 issued under R.S. 4405, as amended, 4417a, as amended, 4462, as amended; 46 U.S.C. 375, 391a, 416. Interpret or apply R.S. 4488, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 481, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 33.01—General Lifesaving Requirements

2. Section 33.01–30 is amended to read as follows:

§ 33.01–30 Approval of lifesaving appliances—TB/ALL.

(a) Any type of lifeboat or liferaft approved by the Commandant shall be considered as equivalent to the standard lifeboat or liferaft.

(b) Lifeboats shall be of an approved type and constructed in accordance with Subpart 160.035 of Subchapter Q (Specifications) of this chapter.

(c) A Class 1 motor lifeboat is one that is fitted with a compression-ignition engine, is capable of being readily started in all conditions, and has sufficient fuel for 24 hours continuous operation. The speed ahead in smooth water when loaded with its full complement of persons and equipment shall be at least 6 knots.

(d) Rigid type liferafts shall be of an approved type and constructed in accordance with Subpart 160.018 of Subchapter Q (Specifications) of this chapter.

(e) Buoyant apparatus shall be of an approved type and constructed in ac-

cordance with Subpart 160.010 of Subchapter Q (Specifications) of this chapter.

(f) Inflatable liferafts shall be of an approved type constructed in accordance with Subpart 160.051 of Subchapter Q (Specifications) of this chapter. On tankships on an international voyage, each inflatable liferaft shall have a carrying capacity of not less than 6 nor more than 25 persons.

(g) In general, a suitable rescue boat shall be a small lightweight boat of rigid construction, with built-in buoyancy and capable of being readily launched and easily maneuvered. Also it shall be of adequate proportion to permit taking an unconscious person on board without capsizing. A rescue boat and its installation shall be acceptable to the Officer in Charge, Marine Inspection, as suitable for the rescue of persons accidentally falling over the side, or for similar emergency purposes. The size, shape, installation, and other factors of suitability will be determined with due consideration of the size, arrangement, intended service and crew requirements of the vessel on which it is to be installed.

Subpart 33.05—Lifeboats, Liferafts, and Buoyant Apparatus Required

3. Section 33.05–1 is amended to read as follows:

§ 33.05–1 Lifeboats and liferafts for tankships; ocean and coastwise; construction or conversion of which was started prior to November 19, 1952—T/OC.

(a) All tankships shall carry a sufficient number of lifeboats on each side to accommodate all persons on board: *Provided*, That such tankships of 350 feet in length or over in ocean service, having superstructure amidships and propelling machinery aft shall be provided with at least four lifeboats, one on each side in way of the after accommodations, and one on each side in way of amidship accommodations.

(b) No lifeboat shall be of less than 180 cubic feet measurement, except, in the case of coastwise vessels, if specifically approved by the Commandant.

(c) All tankships of 1,600 gross tons and over on an international voyage shall carry at least one Class 1 motor lifeboat on each side. The requirement of this paragraph shall not apply except for replacements, and then only if it can be done without change to existing davits, winches, and arrangements.

(d) Inflatable liferafts may be substituted for lifeboats on certain vessels not on an international voyage in accordance with Subpart 33.07.

(e) All tankships in ocean service, and all tankships of less than 1,600 gross tons on an international voyage shall carry inflatable liferafts of sufficient capacity to accommodate at least 50 percent of the persons on board. Those tankships having widely separated accommodation and/or working spaces shall have at least one liferaft in each such location.

4. Section 33.05–2 is amended to read as follows:

§ 33.05–2 Lifeboats and liferafts for tankships; ocean and coastwise; construction or conversion of which was started on or after November 19, 1952 and prior to May 26, 1965—T/OC.

(a) All tankships shall carry a sufficient number of lifeboats on each side to accommodate all persons on board: *Provided*, That such tankships of 3,000 gross tons and over, having a superstructure amidships and propelling machinery aft shall be provided with at least four lifeboats, one on each side in way of the after accommodations, and one on each side in way of amidship accommodations.

(b) No lifeboat shall be less than 24 feet in length, except where owing to the size of the tankship, or for other reasons, the Commandant may permit smaller lifeboats, but in no case shall they be less than 16 feet in length.

(c) All tankships of 1,600 gross tons and over on an international voyage shall carry at least one Class 1 motor lifeboat on each side. The requirement of this paragraph shall not apply except for replacements, and then only if it can be done without change to existing davits, winches, and arrangements.

(d) Inflatable liferafts may be substituted for lifeboats on certain vessels not on an international voyage in accordance with Subpart 33.07.

(e) All tankships in ocean service, and all tankships of less than 1,600 gross tons on an international voyage shall carry inflatable liferafts of sufficient capacity to accommodate at least 50 percent of the persons on board. Those tankships having widely separated accommodation and/or working spaces shall have at least one liferaft in each such location.

5. Subpart 33.05 is amended by inserting after § 33.05–2 a new section reading as follows:

§ 33.05–3 Lifeboats and liferafts for tankships; ocean and coastwise; construction or conversion of which started on or after May 26, 1965—T/OC.

(a) All ocean and coastwise tankships shall carry a sufficient number of lifeboats on each side to accommodate all persons on board.

(b) All tankships of 3,000 gross tons and over on an international voyage shall carry not less than four lifeboats. Two lifeboats shall be carried aft and two amidships except that in tankships which have no amidships superstructure all lifeboats shall be carried aft: *Provided*, That, if in the case of tankships with no amidships superstructure it is impracticable to carry four lifeboats aft, the Commandant may permit instead the carriage aft of one lifeboat on each side of the ship. In such cases:

(1) Each lifeboat shall not exceed 26 feet in length;

(2) Each lifeboat shall be stowed as far forward as practicable, but at least so far forward that the after end of the lifeboat is 1½ times the length of the lifeboat forward of the propeller; and

(3) Each lifeboat shall be stowed as near the sea level as is safe and practicable.

(c) No lifeboat shall be less than 24 feet in length, except where owing to the size of the tankship, or for other reasons, the Commandant may permit smaller lifeboats, but in no case shall they be less than 16 feet in length.

(d) All tankships 1,600 gross tons and over on an international voyage shall carry on each side at least one Class 1 motor lifeboat.

(e) All tankships certificated for ocean service, and all tankships of less than 1,600 gross tons on an international voyage shall carry inflatable liferafts of sufficient capacity to accommodate at least 50 percent of the persons on board. Those tankships having widely separated accommodation and/or working spaces shall have at least one liferaft in each such location.

(f) Inflatable liferafts may be substituted for lifeboats on certain vessels not on an international voyage in accordance with Subpart 33.07.

§ 33.05–10 [Canceled]

5a. Section 33.05–10 *Lifeboats for tankships; coastwise; construction or conversion of which was started prior to November 19, 1952—T/C* is canceled. (Revised requirements transferred to § 33.05–1.)

§ 33.05–11 [Canceled]

6. Section 33.05–11 *Lifeboats for tankships; coastwise; construction or conversion of which was started on or after November 19, 1952—T/C* is canceled. (Revised requirements transferred to § 33.05–2.)

7. Section 33.05–25 is amended by revising paragraph (a) and by adding a new paragraph (e) reading as follows:

§ 33.05–25 Lifeboats, liferafts, or buoyant apparatus for tank vessels; bays, sounds, lakes other than Great Lakes, and rivers—TB/BR.

(a) All tank vessels, except those on an international voyage, operating exclusively on bays, sounds, lakes (other than the Great Lakes), rivers, harbors, or inland waters tributary to the Gulf of Mexico, shall carry lifeboats, liferafts, or buoyant apparatus of sufficient number to accommodate all persons on board.

* * * * *

(e) All tankships on an international voyage shall meet the applicable requirements of §§ 33.05–1 through 33.05–3.

Subpart 33.07—Substitution of Inflatable Liferafts for Other Liferafts, Lifefloats, and Buoyant Apparatus on Certain Vessels Not On an International Voyage

8. The heading for Subpart 33.07 is amended to read "Substitution of Inflatable Liferafts for other Liferafts, Lifefloats, and Buoyant Apparatus on Certain Vesesels not on an International Voyage," as set forth above.

9. Section 33.07–5(a) is amended to read as follows:

§ 33.07–5 Inflatable liferafts for other liferafts, lifefloats and buoyant apparatus—T/ALL.

(a) On all tankships inflatable liferafts may be permitted as substitutes for

other types of liferafts, lifefloats and buoyant apparatus required by this subpart.

* * * * *

10. Section 33.07–15(a) is amended to read as follows:

§ 33.07–15 Inflatable liferafts for lifeboats on certain tankships of 500 to 1,600 gross tons—T/ALL.

(a) On all tankships of 500 gross tons and upwards to 1,600 gross tons inflatable liferafts may be substituted for all required lifeboats provided one approved lifeboat of a size acceptable to the Officer in Charge, Marine Inspection, suitable for rescue purposes, is installed.

* * * * *

11. Section 33.07–20(a) is amended to read as follows:

§ 33.07–20 Inflatable liferafts for lifeboats on certain tankships of 1,600 to 3,000 gross tons—T/ALL.

(a) On all tankships of 1,600 gross tons and upwards to 3,000 gross tons inflatable liferafts may be substituted for all except two of the required lifeboats. These lifeboats shall be of a size acceptable to the Officer in Charge, Marine Inspection, and shall be suitable for rescue purposes. In all cases, two approved lifeboats, one on each side, shall be provided.

* * * * *

12. Section 33.07–25(a) is amended to read as follows:

§ 33.07–25 Inflatable liferafts for lifeboats on certain tankships of 3,000 gross tons and upward—T/ALL.

(a) The Commandant may give special consideration to the substitution of approved inflatable liferafts for required lifeboats on tankships of 3,000 gross tons and over.

Subpart 33.10—Lifeboat Handling Equipment Requirements

13. Section 33.10–1 is amended by revising paragraphs (b) and (c) to read as follows:

§ 33.10–1 Lifeboat davits—TB/ALL.

* * * * *

(b) On any tank vessel the keel of which was laid after September 1, 1941, davits for lifeboats weighing in excess of 5,000 pounds when fully equipped (but without persons) shall be of the gravity type.

(c) On tank vessels of 1,600 gross tons and over on an international voyage, contracted for on or after May 26, 1965, all davits shall be of the gravity type.

* * * * *

14. Section 33.10–10 is amended by revising the heading and paragraph (d) to read as follows:

§ 33.10–10 Blocks and falls for lifeboats—TB/ALL.

* * * * *

(d) Falls shall be of such length that the lifeboat may be lowered to the water with the vessel at the lightest seagoing draft, listed 15 degrees either way.

* * * * *

Subpart 33.15—Equipment for Lifeboats, Liferafts, or Buoyant Apparatus

15. Section 33.15–1(a) is amended to read as follows:

§ 33.15–1 Lifeboat, liferaft or buoyant apparatus equipment; general—TB/ALL.

(a) The provisions of this subpart with the exception of § 33.15–90 shall apply to all vessels contracted for on or after May 26, 1965. Vessels contracted for prior to May 26, 1965 shall meet the requirements of § 33.15–90.

* * * * *

16. Section 33.15–5(a) is amended by revising Table 33.15–5(a) to read as follows:

§ 33.15–5 Required equipment for lifeboats—TB/ALL.

(a) * * *

TABLE 33.15–5(a)

Letter identification	Item	Tankship: Ocean and coastwise	Tankship: Great Lakes	Tankship: Lakes, bays, sounds, and rivers	Tank barge—all waters
a	Bailer	1	1	None	None
b	Bilge pump	1	None	None	None
c	Boathooks	2	1	1	[1] 2
d	Bucket	2	1	1	1
e	Compass and mounting	1	None	None	None
f	Ditty bag	1	None	None	None
g	Drinking cup	1	None	None	[2] 1
h	Fire extinguisher (motor-propelled lifeboats only)	2	2	2	2
i	First-aid kit	1	None	None	None
j	Flashlight	1	1	None	None
k	Hatchet	2	2	1	None
l	Heaving line	2	None	None	None
m	Jackknife	1	None	None	[2] 1
n	Ladder, lifeboat, gunwale	1	None	None	None
o	Lantern	1	1	1	1
p	Lifeline	1	1	1	1
q	Life preservers	2	2	2	2
r	Locker	1	1	None	None
s	Mast and sail (oar-propelled lifeboats only)	1	None	None	None
t	Matches (boxes)	2	1	1	[1] 2
u	Milk, condensed (pounds per person)	1	None	None	None
v	Mirror, signaling	2	None	None	None
w	Oars (units)	[3] 1	[3] 1	[3] 1	[3] 1
x	Oil, illuminating (quarts)	1	1	None	None
y	Oil, storm (gallons)	1	1	None	None
z	Painter	2	2	1	1
aa	Plug	1	1	1	1
bb	Provisions (pounds per person)	2	None	None	None
cc	Rowlocks (units)	[4] 1	[3] 1	[3] 1	[3] [4] 1
dd	Rudder and tiller	1	1	None	[3] 1
ee	Sea anchor	1	1	None	None
ff	Signals, distress, floating orange smoke	2	None	None	None
gg	Signals, distress, red hand flare (units)	[3] 1	[3] ½ unit	None	None
hh	Signals, distress, red parachute flare (units)	[3] 1	[3] ½ unit	None	None
ii	Tool kit (motor-propelled lifeboats only)	[3] 1	[3] 1	[3] 1	[3] 1
jj	Water (quarts per person)	3	None	None	[3] 1
kk	Whistle, signaling	1	None	None	None
ll	Fishing kit	1	None	None	None
mm	Cover, protecting	1	None	None	None
nn	Signals, lifesaving	1	None	None	None
oo	Desalting kit	[6] 1	None	None	None

[1] Only 1 required on other than seagoing barges.
[2] Seagoing barges only.
[3] For description of unit see § 33.15–10.
[4] Lifeboats on barges need only carry 4 rowlocks.
[5] Vessels in coastwise service need only carry 1 unit for each 5 lifeboats or fraction thereof.
[6] Optional equipment. See § 33.15–10(jj), water.

17. Section 33.15–10 is amended by revising paragraphs (g), (j), (w) (text only, Table 33.15–10(w) continued in effect), and (jj), and by adding new paragraphs (kk) through (oo), which read as follows:

§ 33.15–10 Description of equipment for lifeboats—TB/ALL.

* * * * *

(g) *Drinking cups.* Drinking cups shall be enamel coated or plastic, graduated in ounces, and be provided with lanyards 3 feet in length.

* * * * *

(j) *Flashlight.* The flashlight shall be of an approved Type I, Size No. 3, constructed in accordance with Subpart 161.008 of Subchapter Q (Specifications) of this chapter. Three spare cells (or one 3-cell battery) and two spare bulbs, stowed in a watertight container, shall be provided with each flashlight. Batteries shall be replaced yearly during the annual stripping, cleaning, and overhaul of the lifeboat.

* * * * *

(w) *Oars.* A unit, consisting of a complement of rowing oars and steering oar, shall be provided for each lifeboat in accordance with Table 33.15–10(w), except that motor-propelled and hand-propelled lifeboats need only be equipped with 4 rowing oars and steering oar. All oars shall be buoyant.

* * * * *

(jj) *Water.* (1) For each person the lifeboat is certified to carry, there shall be provided three quarts of drinking water consisting of nine approved hermetically sealed containers per person constructed and filled in accordance with Subpart 160.026 of Subchapter Q (Speci-

fications) of this chapter. The service life of this equipment shall be limited to 5 years from date of packing, and replacement shall be made no later than the first annual stripping, cleaning, and overhaul of the lifeboat after date of expiration. Approved desalting kits capable of producing an equal amount of drinking water may be substituted for not more than one-third of the drinking water required to be carried.

(2) The drinking water containers shall be stowed in drinking water tanks, lockers, or other compartments providing suitable protection.

(kk) *Whistle, signaling.* The whistle shall be of the ball-type, of corrosion-resistant construction, with a 36-inch lanyard attached, and in good working order.

(ll) *Fishing kit.* The fishing kit shall be of approved type constructed in accordance with Subpart 160.061 of Subchapter Q (Specifications) of this chapter.

(mm) *Cover, protecting.* The protecting cover shall be of a highly visible color, and capable of protecting the occupants against injury by exposure.

(nn) *Table of lifesaving signals.* The table of lifesaving signals shall be in accordance with the provisions of Chapter V, Regulation 16, of the International Convention for Safety of Life at Sea, 1960, and shall be printed on water resistant paper.

(oo) *Desalting kit.* One or more approved desalting kits may be used as a substitute for one-third of the required amount of drinking water per person, and shall be constructed in accordance with Subpart 160.058 of Subchapter Q (Specifications) of this chapter.

18. Section 33.15–16(a) is amended to read as follows (but the note following it is retained without change):

§ 33.15–16 Required equipment for inflatable liferafts—TB/ALL.

(a) Inflatable liferafts shall be equipped with ocean service equipment for vessels on ocean and coastwise routes and with limited service equipment for vessels on Great Lakes, lakes, bays, sounds, and river routes in accordance with Subpart 160.051 of Subchapter Q (Specifications) of this chapter.

* * * * *

19. Section 33.15–25 is amended to read as follows:

§ 33.15–25 Portable radiotelegraph apparatus—T/OC.

(a) All tankships on an international voyage shall be provided with a portable radio apparatus complying with the requirements of the Federal Communications Commission unless at least one lifeboat on each side of the vessel is fitted with a fixed radio installation. Such portable radio shall be kept in the radio room, chartroom, or other suitable location ready to be moved to one or other of the lifeboats in the event of an emergency; however, in tankships of 3,000 gross tons and over in which lifeboats are fitted amidships and aft, such equipment shall be kept in a suitable place in the vicinity of those lifeboats which are furthest removed from the ship's main transmitter.

20. Section 33.15–90 is amended to read as follows:

§ 33.15–90 Lifeboat, liferaft and buoyant apparatus equipment on tank vessels contracted for prior to May 26, 1965—TB/ALL.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 33.15–5 through 33.15–25 shall be complied with insofar as the number of items of equipment and the method of stowage of the equipment is concerned.

(2) Existing items of equipment previously approved, but not meeting the applicable specifications or requirements set forth in §§ 33.15–5 through 33.15–25 may be continued in service so long as they are maintained in a good condition to the satisfaction of the Officer in Charge, Marine Inspection.

(3) Lifeboats previously approved without automatic drain plugs shall have two plugs or caps attached to the lifeboat by separate chains.

(4) On tank vessels certificated for ocean or coastwise service, and contracted for prior to November 19, 1952, unless other approved means are provided to achieve the same purpose, three ½-inch diameter manila grab lines shall be fitted extending from gunwale to gunwale under the keel to enable persons to cling or to climb upon the upturned lifeboat. The ends of each grab line shall be securely attached to the side benches or other permanent part of the lifeboat and each grab line shall be made up with figure eight knots spaced approximately 18 inches apart in order to provide hand grips. Means shall be provided for taking up any slack in the grab lines.

(5) All new installations shall meet the applicable specifications or requirements of this part.

Subpart 33.20—Stowage of Lifeboats, Liferafts, and Buoyant Apparatus

21. Section 33.20–1 is amended to read as follows:

§ 33.20–1 Davits and launching devices—TB/ALL.

(a) Tank ships of 100 gross tons or more shall be equipped with separate davits for each lifeboat carried.

(b) Tankships of less than 100 gross tons and tank barges where lifeboats are carried shall provide means for the launching of such lifeboats by davits or crane or, where the freeboard is less than 6 feet when the vessel has no cargo aboard, by slide.

(c) On all tankships of 500 gross tons and over in ocean and coastwise service, the conditions set forth in subparagraphs (1) to (5), inclusive, of this paragraph shall apply. Tankships of 500 gross tons and over in Great Lakes service shall comply with the conditions set forth in subparagraphs (1) and (3) of this paragraph.

(1) An approved ladder, constructed in accordance with Subpart 160.017 of Subchapter Q (Specifications) of this chapter shall be provided at each set of davits to afford access to the lifeboats when waterborne.

(2) All davit installations shall have at least 2 lifelines fitted to a davit span. The lifelines shall be of such length as to reach the water at the lightest draft with the vessel listed 15 degrees either way.

(3) Suitable means shall be provided on vessels engaged on international voyages for illuminating the launching gear and the lifeboats during the process of launching the lifeboats from the stowed position until they are waterborne. Similar provisions shall be made on such vessels for the illumination of any liferaft stowage areas. For detailed requirements of such illumination for tank vessels contracted for on or after November 19, 1955, see Part 111 of Subchapter J (Electrical Engineering) of this chapter.

(4) On tankships the construction or conversion of which was started on or after November 19, 1952, where applicable, means shall be provided outside the machinery space to prevent the discharge of water into the lifeboats while they are being lowered. This shall consist of baffles to deflect the water down the vessel's side, reach rods or other means to close the discharge openings, or a remote means for stopping the pumps.

(5) Lifeboats on tankships contracted for on or after May 26, 1965, shall be fitted with skates or other suitable means to facilitate launching against an adverse list of up to 15 degrees. However, skates may be dispensed with if, in the opinion of the Commandant, the arrangements are such as to insure that the lifeboats can be satisfactorily launched without skates. For vessels contracted for prior to May 26, 1965, the foregoing shall apply unless in the opinion of the Officer in Charge, Marine Inspection, it is unreasonable or impracticable or the arrangement or construction of the vessel make their use unnecessary.

(d) Lifeboats shall not be placed in the bows of tankships. They shall be stowed in such positions as to insure safe launching.

(e) Suitable access to the lifeboats shall be provided to enable the crew to prepare the lifeboats for launching.

(f) Means shall be provided for bringing the lifeboats against the ship's side and holding them there so that persons may be safely embarked.

(g) On a tankship on which inflatable liferafts have been substituted for lifeboats, a launching device for each lifeboat to be used for rescue purposes shall be installed. Radial type davits or other means may be used in sheltered waters if acceptable to the Officer in Charge, Marine Inspection.

Subpart 33.25—Markings, Care and Inspection

22. Section 33.25–5(b) is amended to read as follows:

§ 33.25–5 Numbering and marking of lifeboats—TB/ALL.

* * * * *

(b) The cubical contents and number of persons allowed to be carried on each lifeboat shall be plainly marked or painted on each side of the bow in letters

and numbers 1½ inches high. For vessels on an international voyage, the vessel's port of registry shall be added in similar type letters. In addition, the number of persons allowed shall be plainly marked or painted on the top of at least two of the thwarts in letters and numbers 3 inches high.

* * * * *

Subpart 33.35—Life Preservers

23. Section 33.35–1 is amended to read as follows:

§ 33.35–1 Number and type required—TB/ALL.

(a) All tank vessels shall be provided with one approved life preserver for each person carried. An additional number of life preservers shall be provided for personnel on watch in the engineroom and pilothouse.

(b) In addition to the life preservers required by paragraph (a) of this section, all tankships on an international voyage shall be provided with approved type life preservers for 5 percent of the persons carried. The additional number of life preservers required for personnel on watch in the engineroom and pilothouse may be counted toward meeting this requirement.

(c) All life preservers on tankships of 500 gross tons and over on an international voyage shall be provided with a whistle of the ball-type, of corrosion-resistant construction, with a 3-foot lanyard attached, and in good working order. It shall be attached to the life preserver by the lanyard alone without hooks, snaps, clips, etc., and shall extend not less than 15 inches from the life preserver body. While stowed on the life preserver, the whistle lanyard shall be coiled and stopped-off.

24. Section 33.35–15 is amended to read as follows:

§ 33.35–15 Requirements for life preservers—TB/ALL.

(a) The specifications regarding life preservers are in Subparts 160.001, 160.002, 160.005, 160.006, and 160.055 of Subchapter Q (Specifications) of this chapter.

(b) Cork and balsa wood life preservers, constructed in accordance with the applicable provisions of Subpart 160.003 or 160.004 and manufactured as approved life preservers prior to July 1, 1965, may be accepted as new or replacement equipment required by this subchapter if such life preservers are serviceable and in good condition to the satisfaction of the Officer in Charge, Marine Inspection: *Provided, however,* That such life preservers bearing basic Approval No. 160.003 or 160.004 shall not be considered as approved equipment meeting the requirements for those tankships on an international voyage, constructed or contracted for on or after May 26, 1965.

(c) All kapok and fibrous glass life preservers which do not have plastic-covered pad inserts, as required by Subparts 160.002 and 160.005 of Subchapter Q (Specifications) of this chapter, shall be removed from service.

Subpart 33.40—Ring Life Buoys and Water Lights

25. Section 33.40–1 is amended by adding a new paragraph (c) reading as follows:

§ 33.40–1 Ring life buoys and water lights, general requirements—TB/ALL.

* * * * *

(c) All self-activated smoke signals shall be of an approved type, constructed in accordance with the requirements of Subpart 160.057 of Subchapter Q (Specifications) of this chapter, which shall be capable of producing smoke of a highly visible color for at least 15 minutes.

26. Section 33.40–5 is amended to read as follows:

§ 33.40–5 Number required on tankships—T/ALL.

(a) The minimum number of approved 30-inch ring life buoys, and the minimum number of which shall have water lights attached, shall be in accordance with Table 33.40–5(a).

TABLE 33.40–5(a)

Length of tankship (feet)	Ocean		All services other than ocean	
	Minimum number of ring life buoys	Minimum number of ring life buoys in column 2 which shall have water lights attached	Minimum number of ring life buoys	Minimum number of ring life buoys in column 4 which shall have water lights attached
Column 1	Column 2	Column 3	Column 4	Column 5
Under 100	8	6	2	1
100 and under 200	8	6	4	2
200 and under 300	8	6	6	2
300 and under 400	12	6	12	4
400 and under 600	18	9	18	9
600 and under 800	24	12	24	12
800 and over	30	15	30	15

(b) One of the ring life buoys on each side of the vessel shall have secured to it a line at least 15 fathoms in length. On tankships on an international voyage, the line shall be of the buoyant type.

(c) On tankships on an international voyage, at least two of the ring life buoys with waterlights attached as required by Table 33.40–5(a), shall also be provided with an approved self-activated smoke signal and shall be capable of quick release from the bridge.

(d) On tankships on an international voyage, the ring life buoys required by this section shall be orange in color.

PART 34—FIREFIGHTING EQUIPMENT

1. The authority for Part 34 is amended to read as follows:

AUTHORITY: The provisions of this Part 34 issued under R.S. 4405, as amended, 4417a, as amended, 4462, as amended; 46 U.S.C. 375, 391a, 416. Interpret or apply R.S. 4488, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 481, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 34.05—Firefighting Equipment, Where Required

2. The heading for Part 34 is amended by deleting the hyphen from between the words "fire fighting," so it reads as set forth above, and the same change is made in the heading for Subpart 34.05.

Subpart 34.10—Fire Main System, Details

3. Section 34.10–1(a) is amended to read as follows:

§ 34.10–1 Application—TB/ALL.

(a) On all tankships the provisions of this subpart, with the exception of § 34.10–90, shall apply to all fire main installations contracted for on or after May 26, 1965. Installations contracted for prior to May 26, 1965, shall meet the requirements of § 34.10–90.

* * * * *

4. Section 34.10–5 is amended to read as follows:

§ 34.10–5 Fire pumps—T/ALL.

(a) Tankships shall be equipped with independently driven fire pumps in accordance with Table 34.10–5(a).

TABLE 34.10–5(a)—FIRE PUMPS

Size vessel, L.O.A.		Minimum number of pumps	Powerful streams of water per pump	Minimum hydrant and hose size	
Over—	Not over—			Exterior stations	Interior stations
(*Feet*)	(*Feet*)			(*Inches*)	(*Inches*)
100	250	[1] 1	[2] 2	1½	1½
250	400	2	[2] 2	1½	1½
400	650	2	[2] 2	[4] 2½	1½
650		2	[2] 3	[4] 2½	1½

[1] Vessels of 65 feet and not over 100 feet shall be equipped with 2 B–V extinguishers. (Refer to Table 34.50–5(c).) Vessels under 65 feet shall be equipped with 1 B–V extinguisher. (Refer to Table 34.50–5(c).)

[2] Vessels of 1,000 gross tons and over on an international voyage shall have at least 2 fire pumps.

[3] From hydrants having greatest pressure drop between fire-pump(s) and nozzles.

[4] Where 2½-inch hydrant size is required, two 1½-inch outlets may be substituted therefor with two 1½-inch hoses.

(b) Each pump shall be capable of delivering simultaneously the number of streams of water required by Table 34.10–5(a) from the outlets having the greatest pressure drop between fire pump(s) and nozzles at a Pitot tube pressure of approximately 75 p.s.i. Where 1½-inch hose is permitted in lieu of 2½-inch hose by footnote 3 of Table 34.10–5(a), the pump capacity shall be determined on the basis that both hoses are used.

(c) On tankships of 1,000 gross tons and over on an international voyage, each required fire pump, while delivering water through the fire main system at a pressure corresponding to that required by § 34.10–15(e), shall have a minimum capacity of at least two-thirds of that required for an independent bilge pump if no length correction is taken

for the cargo tank space. However, in no case shall the capacity of each fire pump be less than that otherwise required by this section.

(d) Fire pumps shall be fitted on the discharge side with relief valves set to relieve at 25 p.s.i. in excess of the pressure necessary to maintain the requirements of paragraph (b) of this section.

(e) Fire pumps shall be fitted with a pressure gage on the discharge side of the pumps.

(f) Fire pumps may be used for other purposes provided at least one of the required pumps is kept available for use on the fire system at all times. Unless specifically approved by the Commandant no branch lines shall be connected to the fire mains for other than fire, deck wash or tank cleaning purposes. Other discharge lines shall lead from a discharge manifold near the fire pump. In no case shall a pump having connection to an oil line be used as a fire pump.

(g) On all vessels where two fire pumps are required, they shall be located in separate spaces, and the arrangement of pumps, sea connections, and sources of power shall be such as to insure that a fire in any one space will not put all of the fire pumps out of operation. However, where it is shown to the satisfaction of the Commandant that it is unreasonable or impracticable to meet this requirement due to the size, or arrangement of the vessel, or for other reasons, the installation of a total flooding carbon dioxide system may be accepted as an alternate method of extinguishing any fire which would affect the powering and operation of at least one of the required fire pumps.

5. Section 34.10–15 is amended by adding new paragraphs (d) and (e) reading as follows:

§ 34.10–15 Piping—T/ALL.

* * * * *

(d) Tankships of 1,000 gross tons and over on an international voyage shall be provided with at least one international shore connection. Facilities shall be available enabling such a connection to be used on either side of the vessel. The international shore connection shall be in accordance with specification Subpart 162.034 of Subchapter Q (Specifications) of this chapter.

(e) For tankships on an international voyage, the diameter of the fire main shall be sufficient for the effective distribution of the maximum required discharge from two fire pumps operating simultaneously. This requirement is in addition to § 34.10–5(b). The discharge of this quantity of water through hoses and nozzles at a sufficient number of adjacent hydrants shall be at a minimum Pitot tube pressure of approximately 50 pounds per square inch.

6. Section 34.10–90 is amended by changing the heading and by adding a new paragraph (b) reading as follows:

§ 34.10–90 Installations contracted for prior to May 26, 1965—T/ALL.

* * * * *

(b) Installations contracted for on or after January 1, 1962, but prior to May 26, 1965, shall meet the following requirements:

(1) Existing arrangements, materials, and facilities previously approved shall be considered satisfactory as long as they meet the minimum requirements of this paragraph and they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs, and alterations may be made to the same standards as the original installation.

(2) The details of the systems shall be in general agreement with §§ 34.10–5 through 34.10–15 insofar as is reasonable and practicable.

Subpart 34.13—Steam Smothering System, Details

6a. Section 34.13–1 is amended by adding a new paragraph (c) reading as follows:

§ 34.13–1 Application—T/ALL.

* * * * *

(c) This does not preclude the introduction of steam into such confined spaces as boiler casings or into tanks for steaming out purposes. Such installations are not to be considered as part of any required fire extinguishing system.

Subpart 34.15—Carbon Dioxide Extinguishing Systems, Details

7. Section 34.15–5(e) is amended to read as follows:

§ 34.15–5 Quantity, pipe sizes, and discharge rates—T/ALL.

* * * * *

(e) *Machinery spaces, pumprooms, paint lockers, and similar spaces.*

(1) Except as provided in subparagraph (4) of this paragraph, the number of pounds of carbon dioxide required for each space shall be equal to the gross volume of the space divided by the appropriate factor noted in Table 34.15–5(e)(1). If fuel can drain from the compartment being protected to an adjacent compartment, or if the compartments are not entirely separate, the requirements for both compartments shall be used to determine the amount of carbon dioxide to be provided. The carbon dioxide shall be arranged to discharge into both such compartments simultaneously.

TABLE 34.15–5(e)(1)

Gross volume of compartment, cubic feet		Factor
Over—	Not Over—	
----------	500	15
500	1,600	16
1,600	4,500	18
4,500	50,000	20
50,000	----------	22

(2) For the purpose of the above requirement of this paragraph, the volume of a machinery space shall be taken as exclusive of the normal machinery casing unless the boiler, internal combustion propelling machinery, or fuel oil installations subject to the discharge pressure of the fuel oil service pump extend into such space, in which case the volume shall be taken to the top of the casing or the next material reduction in casing area whichever is lower. The terms "normal machinery casing" and "material reduction in casing area" shall be defined as follows:

(i) By "normal machinery casing" shall be meant a casing the area of which is not more than 40 percent of the maximum area of the machinery space.

(ii) By "material reduction in casing area" shall be meant a reduction to at least 40 percent of the casing area.

(3) For the purpose of the above requirements of this paragraph, the volume of a pumproom shall include the pumproom and all associated trunks up to the deck at which access from the weather is provided.

(4) For tankships on an international voyage contracted for on or after May 26, 1965 the amount of carbon dioxide required for a space containing propulsion boilers or internal combustion propulsion machinery shall be as given by subparagraphs (1) and (2) of this paragraph or by dividing the entire volume, including the casing, by a factor of 25, whichever is the larger.

(5) Branch lines in the various spaces shall be as noted in Table 34.15–5(e)(5).

TABLE 34.15–5(e)(5)

Maximum quantity of carbon dioxide required, pounds	Minimum pipe size, inches	Maximum quantity of carbon dioxide required, pounds	Minimum pipe size, inches
100	½	2,500	2½
225	¾	4,450	3
300	1	7,100	3½
600	1¼	10,450	4
1,000	1½	15,000	4½
2,450	2	----------	----------

(6) Distribution piping within the space shall be proportioned from the supply line to give proper distribution to the outlets without throttling.

(7) The number, type and location of discharge outlets shall be such as to give a uniform distribution throughout the space.

(8) The total area of all discharge outlets shall not exceed 85 percent nor be less than 35 percent of the nominal cylinder outlet area or the area of the supply pipe, whichever is smaller. The nominal cylinder outlet area in square inches shall be determined by multiplying the factor 0.0022 by the number of pounds of carbon dioxide required, except that in no case shall this outlet area be less than 0.110 square inches.

(9) The discharge of at least 85 percent of the required amount of carbon dioxide shall be complete within 2 minutes.

Subpart 34.50—Portable and Semiportable Extinguishers

§ 34.50–10 [Amended]

8. Section 34.50–10 *Location—TB/ALL* is amended by deleting paragraph (f).

PART 35—OPERATIONS

1. The authority for Part 35 is amended to read as follows:

AUTHORITY: The provisions of this Part 35 issued under R.S. 4405, as amended, 4417a,

as amended, 4462, as amended; 46 U.S.C. 375, 391a, 416. Interpret or apply R.S. 4472, as amended, 4488, as amended, 4491, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 170, 481, 489, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-14, Nov. 26, 1954, 19 F.R. 8026; 167-38, Oct. 26, 1959, 24 F.R. 8857. Additional authority is cited in parentheses following the sections affected.

Subpart 35.01—Special Operating Requirements

2. Section 35.01-20 is amended to read as follows:

§ 35.01-20 Pilot ladders—T/OC.

(a) On and after May 26, 1965, every tankship which normally employs a pilot shall have an approved type ladder for the use of the pilot in addition to the ladders required by § 33.20-1(c) of this subchapter. Pilot ladder installations shall be in accordance with the following:

(1) All pilot ladders shall be approved Type I (rope suspension) or Type II (chain suspension) ladders constructed in accordance with Subpart 160.017 of Subchapter Q (Specifications) of this chapter.

(2) Suitable spreaders, a man rope, and a safety line shall be kept readily available for use in conjunction with the pilot ladder whenever circumstances may so require.

(3) When used, the ladder shall be secured in a position so that each step rests firmly against the ship's side, and so the pilot can gain safe and convenient access to the ship after climbing not more than 30 feet. Whenever the distance from sea level is more than 30 feet, access from the pilot ladder to the ship shall be by means of an accommodation ladder or other equally safe and convenient means.

(4) Arrangements shall be such that the rigging of the ladder and the embarkation and debarkation of the pilot is supervised by a responsible officer of the ship, and that handholds are provided to assist the pilot to pass safely and conveniently from the head of the ladder into the ship or onto the ship's deck.

(5) At night a light shining over the side shall be available for use, and the deck at the position where the pilot boards the ship shall be adequately lighted.

(b) Tankships contracted for prior to May 26, 1965, shall meet the requirements of this section, except as follows:

(1) Existing pilot ladders not meeting the requirements of paragraph (a)(1) of this section may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. All new or replacement ladders shall meet the applicable requirements.

Subpart 35.10—Fire and Emergency Requirements

3. Section 35.10-5(a) is amended to read as follows:

§ 35.10-5 Emergency signals; fire and lifeboat drills—T/ALL.

(a) The fire-alarm signals shall be a continuous blast of the whistle for a period of not less than 10 seconds supplemented by a continuous ringing of the general alarm bells for not less than 10 seconds. For dismissal from fire-alarm stations, the general alarm bells should be sounded three times, supplemented by three short blasts of the whistle. The signal for lifeboat drill or lifeboat stations shall be more than six short blasts and one long blast of the whistle, supplemented by the same signal on the general alarm bells. Where whistle signals are used to direct the handling of lifeboats they shall be as follows:

(1) To lower lifeboats, one short blast of the whistle.

(2) To stop lowering the lifeboats, two short blasts of the whistle.

(3) For dismissal from lifeboat stations, three short blasts of the whistle: *Provided*, That on river tankships the whistle signals specified herein may be made on the ship's bell.

3a. Subpart 35.10 is amended by inserting after § 35.10-7 a new § 35.10-9 reading as follows:

§ 35.10-9 Posting placards containing instructions for launching and inflating inflatable liferafts—TB/ALL.

(a) Every vessel equipped with inflatable liferafts shall have posted in conspicuous places which are regularly accessible to the crew and/or passengers, approved placards containing instructions for launching and inflating inflatable liferafts for the information of persons on board. The number and location of such placards for a particular vessel shall be as determined necessary by the Officer in Charge, Marine Inspection.

(b) Under the requirements contained in § 160.051-6(c)(1) of Subpart 160.051 in Subchapter Q (Specifications) of this chapter, the manufacturer of approved inflatable liferafts is required to provide approved placards containing such instructions with each liferaft.

§ 35.10-10 [Canceled]

4. Section 35.10-10 *Posting placard containing instructions regarding use of breeches buoy—T/OCL* is canceled. (These requirements transferred to a new § 35.12-5.)

5. Subpart 35.10 is amended by adding after § 35.10-15 a new § 35.10-20 reading as follows:

§ 35.10-20 Radio apparatus for lifeboats—T/OC.

(a) It shall be the duty of the master to require that all batteries for all fixed and portable radio apparatus for lifeboats are brought up to full charge weekly if the batteries are of a type which require recharging.

(b) In any case, the transmitter shall be tested weekly using a suitable artificial aerial.

6. Part 35 is amended by inserting after § 35.10-20 a new Subpart 35.12, consisting of §§ 35.12-1 and 35.12-5, reading as follows:

Subpart 35.12—Placard of Lifesaving Signals and Breeches Buoy Instructions

Sec.
35.12-1 Application—T/OCBL.
35.12-5 Availability—T/OCBL.

§ 35.12-1 Application—T/OCBL.

(a) The provisions of this subpart shall apply to all vessels on an international voyage, and all other vessels of 150 gross tons or over in ocean, coastwise or Great Lakes service.

§ 35.12-5 Availability—T/OCBL.

(a) On all vessels to which this subpart applies there shall be posted in the pilothouse and readily available to the deck officer of the watch a placard (Form CG-811) containing instructions for the use of breeches buoys and the lifesaving signals set forth in Regulation 16, Chapter V, of the International Convention for Safety of Life at Sea, 1960. These signals shall be used by vessels or persons in distress when communicating with lifesaving stations and maritime rescue units.

(b) A copy of Form CG-811 shall also be conveniently posted in the engineroom and crews quarters of all vessels to which this subpart applies.

Subpart 35.30—General Safety Rules

6a. Section 35.30-15 is amended to read as follows:

§ 35.30-15 Combustible gas indicator—TB/ALL.

(a) The provisions of this section shall apply only to United States flag vessels.

(b) Manned tank barges and tankships authorized to carry Grade A, B, C, or D liquids at any temperature, or Grade E liquids at elevated temperatures, shall be provided with a combustible gas indicator suitable for determining the presence of explosive concentrations of the cargo carried. An indicator which bears the label of Underwriters' Laboratories, Inc., Factory Mutual Engineering Division, or other organizations acceptable to the Commandant will be accepted as meeting this requirement.

7. Section 35.30-20 is amended to read as follows:

§ 35.30-20 Emergency equipment—TB/ALL.

(a) All manned tank vessels having tanks which exceed 15 feet in depth, measured from the deck to the lowest point at which cargo is carried, all tankships on an international voyage, and all tankships of 1,000 gross tons and over shall be provided with an outfit as follows:

(1) One approved fresh air breathing apparatus, including belt and lifeline. The length of the airhose shall be sufficient to reach from the open deck, well clear of hatch or doorway, to any part of the holds, tanks, and, except as provided in the following subparagraph, the machinery spaces.

(2) If it is not practicable to reach all portions of the machinery space with the airhose of the fresh air breathing apparatus, an approved self-contained breathing apparatus with adequate lifeline shall be carried for use in the machinery space. In such case, the particular apparatus provided for the machinery space shall be used for no other purpose, shall be marked indicating the restriction to its use, and shall be stowed

convenient to, but outside of the machinery space.

(3) One approved 3-cell, explosion-proof flashlight, constructed in accordance with Subpart 161.008 of Subchapter Q (Specifications) of this chapter.

(4) One fire ax.

(b) Approved self-contained breathing apparatus with adequate lifelines may be provided in addition to the equipment required in the preceding paragraph, and may be used in any space on the vessel.

(c) For tankships on an international voyage, lifelines shall be of steel or bronze wire rope. Steel wire rope shall be either inherently corrosion resistant or made so by galvanizing or tinning. Each end shall be fitted with a hook with keeper having a throat opening which can be readily slipped over a ⅝-inch bolt. The total length of the lifeline shall be dependent upon the size and arrangement of the vessel, and more than one line may be hooked together to achieve the necessary length. No individual length of lifeline may be less than 50 feet in length. The assembled lifeline shall have a minimum breaking strength of 1,500 pounds.

Subpart 35.40—Marking of Fire and Emergency Equipment

8. Section 35.40–40 is amended by adding a new paragraph (b) reading as follows:

§ 35.40–40 Vessel's name on equipment—TB/ALL.

* * * * *

(b) For vessels on an international voyage, in addition to other markings required, the port of registry of the vessel shall be marked on all lifeboats, rigid liferafts, buoyant apparatus, and ring life buoys. On lifeboats, the name of the vessel and the port of registry shall be marked on each side of the bow.

PART 36—ELEVATED TEMPERATURE CARGOES

The authority for Part 36 is amended to read as follows:

AUTHORITY: The provisions of this Part 36 issued under R.S. 4405, as amended, 4417a, as amended, 4462, as amended; 46 U.S.C. 375, 391a, 416. Interpret or apply R.S. 4488, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 461, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–38, Oct. 26, 1959, 24 F.R. 8857.

PART 38—LIQUEFIED FLAMMABLE GASES

1. The title for Part 38 is amended to read as set forth above.

2. The authority for Part 38 is amended to read as follows:

AUTHORITY: The provisions of this Part 38 issued under R.S. 4405, as amended, 4417a, as amended, 4462, as amended; 46 U.S.C. 375, 391a, 416. Interpret or apply sec. 3, 68 Stat. 675; 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026. Additional authority cited with sections affected.

PART 39—FLAMMABLE OR COMBUSTIBLE LIQUIDS HAVING LETHAL CHARACTERISTICS

1. The title for Part 39 is amended to read as set forth above.

2. The authority for Part 39 is amended to read as follows:

AUTHORITY: The provisions of this Part 39 issued under R.S. 4405, as amended, 4417a, as amended, 4462, as amended; 46 U.S.C. 375, 391a, 416. Interpret or apply sec. 3, 68 Stat. 675; 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026.

PART 40—SPECIAL CONSTRUCTION, ARRANGEMENT, AND OTHER PROVISIONS FOR CARRYING CERTAIN FLAMMABLE OR COMBUSTIBLE DANGEROUS CARGOES IN BULK

1. The title for Part 40 is amended to read as set forth above.

2. The authority for Part 40 is amended to read as follows:

AUTHORITY: The provisions of this Part 40 issued under R.S. 4405, as amended, 4417a, as amended, 4462, as amended; 46 U.S.C. 375, 391a, 416. Interpret or apply sec. 3, 68 Stat. 675; 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026. Additional authority cited with sections affected.

SUBCHAPTER E—LOAD LINES

PART 46—SUBDIVISION LOAD LINES FOR PASSENGER VESSELS

1. The authority for Part 46 is amended to read as follows:

AUTHORITY: The provisions of this Part 46 issued under sec. 2, 45 Stat. 1493, as amended, sec. 2, 49 Stat. 888, as amended; 46 U.S.C. 85a, 88a. Interpret or apply R.S. 4490, as amended, sec. 3, 24 Stat. 129, as amended, 41 Stat. 305, as amended, sec. 5, 49 Stat. 1384, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 482, 483, 363, 369, 367, 1333, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–48, Oct. 19, 1962, 27 F.R. 10504.

SUBCHAPTER F—MARINE ENGINEERING

PART 50—GENERAL PROVISIONS

The authority for Part 50 is amended to read as follows:

AUTHORITY: The provisions of this Part 50 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426–4431, as amended, 4433, as amended, 4434, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404–409, 411, 412, 435, 481, 489, 366, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

PART 51—MATERIALS

1. The authority for Part 51 is amended to read as follows:

AUTHORITY: The provisions of this Part 51 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426–4431, as amended, 4433, as amended, 4434, as amended, 4453, as amended, 4488, as as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404–409, 411, 412, 435, 481, 489, 366, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 51.67—Copper and Copper-Alloy Plate

2. Section 51.67–1(a) is amended by revising Table 51.67–1 to read as follows:

§ 51.67–1 Scope.

(a) * * *

TABLE 51.67–1—MATERIAL SPECIFICATIONS

A.S.T.M. designation	A.S.T.M. grade	Coast Guard grade
Copper:		
B11–61	Type ETP (tough pitch copper nonarsenical).	B11–1.
B11–61	Type DHP (phosphorized copper nonarsenical).	B11–2.
B11–61	Type ATP (tough pitch arsenical copper).	B11–3.
B11–61	Type DPA (phosphorized arsenical copper).	B11–4.
Copper-alloy:		
B96–61	Copper silicon alloy A or C	B96–A or C.
B169–55	Aluminum bronze alloy D	B169–D.
B171–58	Naval brass	B171–A.
B171–58	Admiralty metal	B171–B.
B171–58	Copper-nickel alloy 70–30	B171–C.
B171–58	Copper-nickel alloy 90–10	B171–D.
B171–58	Aluminum bronze alloy D	B171–E.
B171–58	Aluminum bronze alloy E	B171–F.
B–402	Copper-nickel alloy 70–30	B–402–A.
B–402	Copper-nickel alloy 90–10	B–402–B.

* * * * * *

PART 52—CONSTRUCTION

1. The authority for Part 52 is amended to read as follows:

AUTHORITY: The provisions of this Part 52 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426–4431, as amended, 4433, as amended, 4434, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404–409, 411, 412, 435, 481, 489, 366, 395, 363, 367, 526p, 1333, 390b; 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 52.05—Cylindrical Shells

§ 52.05–10 [Amended]

2. Section 52.05–10 *Computations* is amended by revising Table 52.05–10(a) by deleting the first line under "Castings" "Carbon steel" with reference to "specification subpart" 51.58, "A.S.T.M. designation" A95, "C.G. Grade" A, etc.

Subpart 52.25—Openings and Reinforcements

3. Section 52.25–20(c) is amended by revising the text of paragraph only and retaining Figure 52.25–20(c) without change, so the paragraph reads as follows:

§ 52.25–20 Reinforced opening in shells and dished heads.

* * * * *

(c) The total cross-sectional area of reinforcement in any given plane shall be not less than that prescribed by the following formula:

$$A = d \times T_r \times F \qquad (1)$$

where:

A = the required area of reinforcement, in square inches.

d = the diameter in the given plane of the finished opening, in inches.

T_r = the required thickness of a seamless shell, header or blank head, in inches, except that: (1) For spherically dished heads when the opening and its reinforcement are entirely within the spherical portion, T_r is the thickness required for a seamless hemispherical head of the same radius as that of the spherical portion; (2) for ellipsoidal heads when the opening and its reinforcement are located entirely within a circle the center of which coincides with the center of the head and diameter of which is equal to 80 percent of the shell inside diameter, T_r is the thickness required for a seamless hemispherical head of radius equal to 90 percent of the inside diameter of the shell.

F = 1.00 when the plane under consideration is on the longitudinal axis of a shell and for heads. For other planes in a shell or header the value of F shall be determined from figure 52.25–20(c).

* * * * *

Subpart 52.70—Boiler Mountings and Attachments

§ 52.70–25 [Amended]

4. Section 52.70–25 *Feed connections* is amended by revising in paragraph (b) the phrase from "designed for pressures" to "with maximum allowable pressures."

§ 52.70–50 [Amended]

5. Section 52.70–50 *Water indicators* is amended by revising paragraph (a) by changing in the second sentence the phrase from "allowable steam pressure" to "maximum allowable pressure" and by changing in the third sentence the phrase from "allowable pressure" to "maximum allowable pressure."

PART 53—LOW-PRESSURE HEATING BOILERS

1. The authority for Part 53 is amended to read as follows:

AUTHORITY: The provisions of this Part 53 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426–4431, as amended, 4433, as amended, 4434, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404–409, 411, 412, 435, 481, 489, 368, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 13, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 53.03—Steel Plate Heating Boilers

§ 53.03–75 [Amended]

2. Section 53.03–75 *Hydrostatic tests, inspection, and stamping* is amended by revising paragraph (e) with respect to data stamped on heating boilers by changing wording under the line for "P.s.i." from "(Maximum w.p.) (Steam)" to "(Maximum allowable pressure) (Steam)."

PART 54—UNFIRED PRESSURE VESSELS

1. The authority for Part 54 is amended to read as follows:

AUTHORITY: The provisions of this Part 54 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426–4431, as amended, 4433, as amended, 4434, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404–409, 411, 412, 435, 481, 489, 368, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 13, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 54.03—Design and Construction

§ 54.03–1 [Amended]

2. Section 54.03–1 *Materials* is amended by changing in paragraph (b) the phrase from "unfired pressure vessels designed for pressures" to "unfired pressure vessels having maximum allowable pressures."

3. Section 54.03–10(c) is amended by revising Table 54.03–10(c) to read as follows:

§ 54.03–10 Cylindrical shells and heads.

* * * * *

(c) * * *

TABLE 54.03–10(c)—MAXIMUM ALLOWABLE STRESSES [1] FOR NONFERROUS MATERIALS

Specification	A.S.T.M. designation	Grade		Minimum tensile strength p.s.i.	Minimum yield strength p.s.i.	Notes	For metal temperatures not exceeding ° F.											
		A.S.T.M.	C.G.				100	150	200	250	300	350	400 [2]	450	500	550	600	650/700
Aluminum-alloy plates and sheets																		
51.79	B–209	1060	1060–0	9,500	2,500	(3)	1,650	1,650	1,600	1,450	1,250	1,200	1,050					
51.79	B–209	1100	1100–0	11,000	3,500	(3)	2,350	2,350	2,300	2,100	1,850	1,600	1,300					
51.79	B–209	3003	3003–0	14,000	5,000	(3)	3,350	3,150	2,900	2,700	2,400	2,100	1,800					
51.79	B–209	3004	3004–0	22,000	8,500	(3)	5,500	5,500	5,500	5,200	4,500	3,600	2,950					
51.79	B–209	5050	5050–0	18,000	6,000	(3)	4,000	4,000	4,000	4,000	4,000	3,350	2,100					
51.79	B–209	5052	5052–0	25,000	9,500	(3)	6,250	6,250	6,200	6,000	5,400	4,650	3,500					
51.79	B–209	5083	5083–0	40,000	18,000	(4)	10,000	10,000										
51.79	B–209	5086	5086–0	35,000	14,000		8,700	8,700										
51.79	B–209	5154	5154–0	30,000	11,000	(3)	7,350	7,350	7,350	7,000	6,400							
51.79	B–209	5456	5456–0	42,000	19,000		10,500	10,400										
51.79	B–209	6061–T6W	6061–T6W	[5] 24,000			6,000	5,900	5,700	5,400	5,000	4,200	3,200					

See footnotes at end of table.

TABLE 54.03-10(e)—MAXIMUM ALLOWABLE STRESSES[1] FOR NONFERROUS MATERIALS—Continued

Specification	A.S.T.M. designation	Grade A.S.T.M.	Grade C.G.	Minimum tensile strength p.s.i.	Minimum yield strength p.s.i.	Notes	For metal temperatures not exceeding °F. 100	150	200	250	300	350	400[2]	450	500	550	600	650/700
Copper and copper-alloy plates																		
51.67	B-11	Copper	B11-1, -2, -3, -4.	30,000	10,000	(9)	6,700	6,700	6,500	6,300	5,000	3,360	2,500					
51.67	B-96	Copper-silicon	B96-A or -C	50,000	18,000	(9)	12,000	12,000	11,900	11,700								
51.67	B-171	Naval brass	B171-A	50,000	20,000	(7)	12,500	12,500	12,000	11,200	10,500	7,500	2,000					
51.67	B-171	Admiralty metal.	B171-B	45,000	15,000	(7)	10,000	10,000	10,000	10,000	10,000	8,000	5,000	3,000				
51.67	B-171	Copper nickel 70-30.	B171-C	50,000	20,000	(7 9)	12,500	12,200	11,900	11,600	11,300	11,000	10,800	10,600	10,400	10,200	10,000	9,800/9,700
51.67	B-171	Copper nickel 90-10.	B171-D	40,000	15,000	(7 9)	10,000	10,000	9,800	9,500	9,300	9,000	8,700	8,300	8,000	7,000	6,000	
51.67	B-402	Copper nickel 70-30.	B-402-A	45,000	18,000		11,200	10,800	10,500	10,200	9,900	9,700	9,500	9,400	9,300	9,200	9,100	9,000/8,900
51.67	B-402	Copper nickel 90-10.	B-402-B	38,000	15,000		9,500	9,500	9,300	9,000	8,800	8,500	8,200	7,900	7,600	6,600	5,700	
51.67	B-169	Aluminum bronze alloy D.	B169-D	70,000	30,000	(7)	17,500	17,500	16,800	16,000	15,500	15,000	14,500	12,000	10,000			
51.67	B-171	Aluminum bronze alloy D.	B171-E	70,000	30,000	(4 7)	17,500	17,500	16,800	16,000	15,500	15,000	14,500	12,000	10,000			
51.67	B-171	Aluminum bronze alloy E.	B171-E, -F	90,000	36,000	(4 7)	22,500	22,500	21,000	19,500	18,000	16,500	15,000	13,500	12,000	10,500	9,000	7,500/6,000
Seamless pipe or tubes																		
51.80	B-210	1060	1060-0	9,500	2,500	(3 9)	1,650	1,650	1,600	1,450	1,250	1,200	1,050					
51.80	B-235																	
51.80	B-210	3003	3003-0	14,000	5,000	(7)	3,500	3,150	2,900	2,700	2,400	2,100	1,800					
51.80	B-235																	
51.80	B-210	5154	5154-0	30,000	11,000	(3)	7,350	7,350	7,350	7,000	6,400							
51.80	B-235																	
51.80	B-235	5456	5456-0	42,000	19,000		10,500	10,400										
51.80	B-241																	
51.80	B-210																	
51.80	B-235	6063-T6W	6063-T6W	[5] 17,000			4,250	4,200	4,000	3,800	3,600	2,750	1,900					
51.80	B-241																	
51.80	B-210																	
51.80	B-234	6061-T6W	6061-T6W	[5] 24,000			6,000	5,900	5,700	5,400	5,000	4,200	3,200					
51.80	B-235																	
51.80	B-241																	
51.70	B-42	Copper pipe	B42	30,000	9,000	(3 10)	6,000	6,000	5,900	5,800	6,000	3,800	2,500					
51.70	B-42	Copper pipe (2.00" and under).	B42	45,000	40,000	(3 10 11)	11,300	11,300	11,000	10,500	8,000	5,000	2,500					
51.70	B-42	Copper pipe (above 2.00").	B42	36,000	30,000	(3 10 11)	9,000	9,000	8,700	8,300	8,000	5,000	2,500					
51.70	B-43	Red brass pipe	B43	40,000	12,000	(3 10)	8,000	8,000	8,000	8,000	8,000	5,000	3,000	2,000				
51.73	B-75	Copper tubes	B75-A or -B	30,000	9,000	(3 10)	6,000	6,000	5,900	5,800	5,000	3,800	2,500					
51.73	B-75	Copper tubes	B75-A or -B	36,000	30,000	(3 11)	9,000	9,000	8,700	8,300	8,000	5,000	2,500					
51.73	B-88	Copper tubes	B88-K, -L or -M.	30,000	10,000	(7)	6,700	6,700	6,500	6,300	5,000	3,800	2,500					
51.73	B-88	Copper tubes	B88-K, -L or -M.	36,000	30,000	(3 11)	9,000	9,000	8,700	8,300	8,000	5,000	2,500					
51.73	B-111	Copper tubes	B111-A or-B	30,000	10,000	(3 10)	6,700	6,700	6,500	6,300	5,000	3,800	2,500					
51.73	B-111	Copper tubes	B111-A or-B	36,000	30,000	(3 10 11)	9,000	9,000	8,700	8,300	8,000	5,000	2,500					
51.73	B-111	Red brass tubes	B111-C	46,000	12,000	(3 10)	8,000	8,000	8,000	8,000	8,000	6,000	3,000	2,000				
51.73	B-111	Admiralty metal.	B111-D	45,000	15,000	(3 10)	10,000	10,000	10,000	10,000	10,000	8,000	5,000	3,000				
51.73	B-111	Aluminum brass tubes.	B111-E	50,000	18,000	(3 10)	12,000	12,000	12,000	12,000	12,000	7,500	3,000	2,000				
51.73	B-111	Copper nickel tubes 70-30.	B111-G	52,000	18,000	(3 10)	12,000	11,600	11,300	11,000	910,800	10,600	10,300	10,100	9,900	9,800	9,600	9,500/9,400
51.73	B-111	Copper nickel tubes 80-20.	B111-H	45,000	16,000	(3 10)	10,700	10,600	10,500	10,400	10,300	10,100	9,900	9,600	9,300	8,900	8,400	7,700/7,000
51.73	B-111	Copper nickel tubes 90-10.	B111-I	40,000	15,000	(3 10)	10,000	10,000	9,800	9,500	9,300	9,000	8,700	8,300	7,500	6,700	6,000	
51.73	B-111	Aluminum bronze tubes.	B111-F	50,000	19,000	(3 10)	12,500	12,400	12,200	11,900	11,600	10,000	6,000	4,000	2,000			
Brazed pipe		Copper					3,000	3,000	3,000	3,000	[12] 2,600							
Bars, rods, shapes and forgings																		
51.81	B-247	3003F	3003F	14,000	5,000		3,350	3,150	2,900	2,700	2,400	2,100	1,800					
51.82	B-221	5083	5083	38,000	16,000		9,500	9,500										
51.82	B-221	5154	5154	30,000	11,000	(3)	7,350	7,350	7,350	7,000	6,400							
51.82	B-221	5456	5456	42,000	19,000		10,500	10,400										
51.82	B-211	6061-T6	6061-T6	38,000	35,000	(13)	9,500	9,200	9,000	8,500	7,200	5,600	4,000					
51.82	B-221																	
51.82	B-221	6061-T6W	6061-T6W	[5] 24,000			6,000	5,900	5,700	5,400	5,000	4,200	3,200					
51.82	B-211																	
51.81	B-247	6061-T6	6061-T6	38,000	35,000	(13)	9,500	9,200	9,000	8,500	7,200	5,600	4,000					
51.81	B-247	6061-T6W	6061-T6W	[5] 24,000			6,000	5,900	5,700	5,400	5,000	4,200	3,200					
51.81	B-247	6063-T6	6063-T6	36,000	30,000	(13)	9,000	8,400	7,900	7,300	6,100	4,700	3,200					
Castings																		
51.76 [14]	B-61	Steam bronze	2A	34,000	16,000	(15)	8,500	8,400	8,300	8,200	8,100	7,900	7,600	7,200				
51.76	B-62	Ounce metal	4A	30,000	14,000	(15)	7,500	7,300	7,100	6,900	6,800	6,600	[16] 6,500					
51.76	B-143	Tin bronze 1A	1A	40,000	18,000	(15)	8,000	8,000	7,000	6,000	5,500	5,000						
51.76	B-143	Tin bronze 1B	1B	40,000	18,000	(15)	8,000	8,000	7,000	6,000	5,500	5,000						

See footnotes at end of table.

TABLE 54.03-10(c)—MAXIMUM ALLOWABLE STRESSES [1] FOR NONFERROUS MATERIALS—Continued

Specification	A.S.T.M. designation	Grade		Minimum tensile strength p.s.i.	Minimum yield strength p.s.i.	Notes	For metal temperatures not exceeding ° F.										
		A.S.T.M.	C.G.				100	200	300	400	500	600	700	800	900	1,000	1,100	1,200
Nickel copper plates and sheets																		
51.85	B-127	Hot or cold rolled.	B127	70,000	28,000		17,500	16,500	15,500	14,800	14,700	14,700	14,700	14,500	8,000			
51.85	B-127	Hot rolled (as rolled).	B127	75,000	40,000		18,750	17,500	17,000	17,000	17,000	17,000	16,500	14,500	4,000			
Nickel copper pipe or tubes																		
51.86	B-163	Nickel copper tubes (3" and under).	B163	70,000	28,000		17,500	16,500	15,500	14,800	14,700	14,700	14,700	14,500	8,000			
51.86	B-163	Nickel copper tubes (½" to ¾").	B163	90,000	55,000	([8])	22,500	21,200	20,700	20,500	20,500	20,500	19,500	15,000				
51.86	B-163	Nickel copper tubes (other sizes).	B163	85,000	55,000	([8])	21,200	20,200	19,500	19,200	19,200	19,200	18,500	15,000				
51.86	B-165	Nickel copper pipe or tubes.	B165	70,000	28,000		17,500	16,500	15,500	14,800	14,700	14,700	14,700	14,500	8,000			
51.86	B-165	Nickel copper pipe or tubes.	B165	85,000	55,000	([8] [17])	21,200	20,200	19,500	19,200	19,200							

[1] All stresses refer to the annealed condition of the material, unless otherwise specified. For wrought material, the allowable "*S*" values are based upon one-fourth of the minimum tensile strength or two-thirds of the minimum yield strength for temperatures of 150° F. and below, whichever is lower; and upon creep stress or stress-rupture at the higher temperatures. For cast material, the allowable "*S*" values are based upon one-fifth of the minimum tensile strength for temperatures of 150° F. and below; and upon creep stress or stress-rupture at the higher temperatures.
[2] The same stress may be employed for a temperature of 406° F.
[3] The minimum yield strength employed not included in the specification.
[4] For nominal thickness not greater than 2.00-inch.
[5] Strength of reduced tensile specimen to qualify welding procedures, see § 54.03-1(g)(3).
[6] This material limited to a maximum allowable temperature of 212° F.
[7] This material approved for tube plates only.
[8] For nominal thickness not greater than 2.50-inch.
[9] For nominal thickness not less than 0.25-inch.
[10] The minimum tensile strength employed not included in the specification.
[11] These stresses refer to the light drawn condition.
[12] The same stress may be employed for 320° F.
[13] The stress values given for this material are not applicable when either welding or thermal cutting is employed.
[14] To these stresses a casting quality factor of 0.80 shall be used. This is not intended to apply to valves and fittings complying with A.S.A. standards.
[15] This stress is not permitted for temperatures exceeding 366° F.
[16] The stresses refer to the stress relieved condition.
[17] The maximum operating temperature is (arbitrarily) set at 500° F., because harder temper adversely affects design stress in the creep rupture temperature range.

§ 54.03-27 [Amended]

4. Section 54.03-27 *Unfired steam boilers* is amended by changing in paragraph (b) the phrase from "design pressure" to "maximum allowable pressure."

Subpart 54.07—Pressure-Relief Devices

§ 54.07-25 [Amended]

5. Section 54.07-25 *Safety relief valves* is amended by changing in paragraph (b) the phrase from "design pressure" to "maximum allowable pressure" and the phrase from "maximum design pressure" to "maximum allowable pressure."

PART 55—PIPING SYSTEMS AND APPURTENANCES

1. The authority for Part 55 is amended to read as follows:

AUTHORITY: The provisions of this Part 55 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426–4431, as amended, 4433, as amended, 4434, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404–409, 411, 412, 435, 481, 489, 366, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-14, Nov. 26, 1954, 19 F.R. 8026; 167-20, June 18, 1956, 21 F.R. 4894; CGFR 56-28, July 24, 1956, 21 F.R. 5659; 167-38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 55.07—Detail Requirements

§ 55.07-6 [Amended]

2. Section 55.07-6 *Expansion and flexibility* is amended by changing the last two words of paragraph (b) from "slip joints" to "movable joints that will provide adequate flexibility."

Subpart 55.10—Pumping Arrangements and Piping Systems

3. Section 55.10-40(c) is amended to read as follows:

§ 55.10-40 Fuel oil service systems.

* * * * *

(c) Piping between service pumps and burners shall be located so as to be readily observable. The relief valve located at the pump and the relief valves fitted to the fuel-oil heaters shall discharge back into the fuel supply tank or the suction side of the pump. The return line from the burners shall be so arranged that the suction piping cannot be subjected to discharge pressure.

* * * * *

Subpart 55.13—Refrigeration Systems

§ 55.13-10 [Amended]

4. Section 55.13-10 *Pressure vessels and piping* is amended by changing in the first sentence of paragraph (a) the last two words from "design pressure" to "maximum allowable pressure," and by changing in the second sentence of paragraph (b) the last two words from "design pressure" to "maximum allowable pressure."

Subpart 55.17—Hydraulic Systems

§ 55.17-30 [Amended]

5. Section 55.17-30 *Accumulators* is amended by changing the last two words at the end of the first sentence of paragraph (c) from "design pressures" to "maximum allowable pressures."

PART 56—ARC WELDING, GAS WELDING, AND BRAZING

1. The authority for Part 56 is amended to read as follows:

AUTHORITY: The provisions of this Part 56 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426–4431, as amended, 4433, as amended, 4434, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404–409, 411, 412, 435, 481, 489, 366, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-14, Nov. 26, 1954, 19 F.R. 8026; 167-20, June 18, 1956, 21 F.R. 4894; CGFR 56-28, July 24, 1956, 21 F.R. 5659; 167-38, Oct. 26, 1959, 24 F.R. 8857.

PART 57—MAIN AND AUXILIARY MACHINERY

1. The authority for Part 57 is amended to read as follows:

AUTHORITY: The provisions of this Part 57 issued under R.S. 4405, as amended, 4462,

as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426–4431, as amended, 4433, as amended, 4434, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404–409, 411, 412, 435, 481, 489, 366, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

PART 58—REPAIRS TO BOILERS, UNFIRED PRESSURE VESSELS AND APPURTENANCES

1. The authority for Part 58 is amended to read as follows:

AUTHORITY: The provisions of this Part 58 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426–4431, as amended, 4433, as amended, 4434, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404–409, 411, 412, 435, 481, 489, 366, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

PART 59—INDEPENDENT INTERNAL COMBUSTION ENGINE FUEL TANKS

1. The authority for Part 59 is amended to read as follows:

AUTHORITY: The provisions of this Part 59 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426–4431, as amended, 4433, as amended, 4434, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404–409, 411, 412, 435, 481, 489, 366, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

PART 61—INSTALLATIONS, TESTS, INSPECTIONS, MARKINGS, AND OFFICIAL FORMS

1. The authority for Part 61 is amended to read as follows:

AUTHORITY: The provisions of this Part 61 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426–4431, as amended, 4433, as amended, 4434, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404–409, 411, 412, 435, 481, 489, 366, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 61.25—Tests and Inspections of Pressure Vessels

2. Section 61.25–5 is amended by revising the introductory sentence of paragraph (a) but not the subparagraphs thereof and by adding a new paragraph (d) to read as follows:

§ 61.25–5 New pressure vessels.

(a) Except as otherwise provided for in this section, upon completion of a new pressure vessel one of the following applicable hydrostatic tests shall be made in the presence of an inspector:

* * * * *

(d) Pressure vessels designed and/or supported so that they cannot be safely filled with water, or which cannot be dried and are to be used in a service where traces of the testing medium cannot be tolerated, shall be pneumatically tested in accordance with § 61.25–16.

3. Section 61.25–15 is amended to read as follows:

§ 61.25–15 Hydrostatic test of welded and brazed pressure vessels.

(a) All welded or brazed pressure vessels shall satisfactorily pass the hydrostatic test prescribed by this section, excepting those unfired pressure vessels noted under § 61.25–16.

(b) The hydrostatic test pressure shall be at least equal to 1½ times the maximum allowable pressure stamped on the pressure vessel, multiplied by the ratio of the stress value *"S"* at the test temperature to the stress value *"S"* at the design temperature for the materials of which the pressure vessel is constructed. The values for *"S"* shall be taken from Table 52.05–10(a) in § 52.05–10 for ferrous materials and Table 54.03–10(c) in § 54.03–10 for nonferrous materials. The value of *"S"* at test temperature shall be that taken for the material at the tabulated value of temperature closest to the test temperature. The value of *"S"* at design temperature shall be as interpolated from the appropriate table. No ratio less than one shall be used. The design shall consider the combined stress during hydrostatic testing due to pressure and the support reactions. This stress shall not exceed 90 percent of the yield stress of the material at the test temperature. In addition, the adequacy of the supporting structure, during hydrostatic testing, shall be considered in the design.

(c) The hydrostatic test pressure shall be applied for a sufficient period of time to permit a thorough examination of all joints and connections. The test shall not be conducted until the vessel and liquid are at approximately the same temperature.

(d) Pinholes, cracks, or other defects detected during the hydrostatic test or upon examination shall be repaired as required by Part 58 of this chapter.

(e) Vessels requiring stress relieving shall be stress-relieved after any welding repairs have been made.

(f) After repairs have been made the vessel shall again be tested in the regular way, and if it passes the test, the inspector shall accept it. If it does not pass the test, the inspector can order supplementary repairs, or, if in his judgment the vessel is not suitable for service, he may permanently reject it.

4. Subpart 61.25 is amended by inserting after § 61.25–15 a new § 61.25–16 reading as follows:

§ 61.25–16 Pneumatic testing of pressure vessels.

(a) Pneumatic testing of welded pressure vessels shall be permitted only for those units which are so designed and/or supported that they cannot be safely filled with water, or which cannot be dried and are to be used in a service where traces of the testing medium cannot be tolerated.

(b) Proposals to pneumatically test shall be submitted to the Commandant for approval.

(c) Pneumatic testing shall be limited to unfired pressure vessels designed and constructed to the requirements of Class I pressure vessels.

(d) The pneumatic test shall be 1.25 (1¼) times the maximum allowable pressure of the vessel.

(e) The pneumatic test of pressure vessels shall be accomplished as follows:

(1) The pressure on the vessel shall be gradually increased to not more than half the test pressure.

(2) The pressure will then be increased at steps of approximately one-tenth the test pressure, until the test pressure has been reached.

(3) The pressure will then be reduced to maximum allowable pressure of the vessel to permit examination.

(f) Pressure vessels pneumatically tested shall also be leak-tested. The test shall be capable of detecting leakage consistent with the design requirements of the pressure vessel. Details of the leak test shall be submitted to the Commandant for approval.

(g) After satisfactory completion of the pneumatic pressure test, the vessel may be stamped in accordance with § 61.40–5. A marine inspector shall observe the pressure vessel in a loaded condition at the first opportunity following the pneumatic test. The tank supports and saddles, connecting piping, and insulation if provided shall be examined to determine they are satisfactory and that no leaks are evident.

(h) The pneumatic test is inherently more hazardous than a hydrostatic test, and suitable precautions shall be taken to protect personnel and adjacent property.

5. Section 61.25–20 is amended by adding a paragraph (9) to paragraph (e) and a paragraph (h) at the end of the section, which read as follows:

§ 61.25–20 Pressure vessels in service.

* * * * *

(e) * * *

(9) Pressure vessels which have been pneumatically tested in accordance with § 61.25–16.

* * * * *

(h) (1) Pressure vessels which have been pneumatically tested shall be thoroughly examined internally and externally biennially at the regular annual or biennial inspection, except in those instances where the inspection interval is prescribed otherwise by the specific regulations applicable to the product carried in Subchapter D (Tank Vessels), Subchapter I (Cargo and Miscellaneous Vessels), or Subchapter N (Dangerous Cargoes) of this chapter. For those tanks the design of which precludes a thorough internal or external examination, the thickness shall be determined by nondestructive method acceptable to the Officer in Charge, Marine Inspection.

(2) Such pressure vessels in service are not required to be pneumatically tested unless repairs have been made to them, or unless defects are found which in the opinion of the marine inspector, may impair the safety of the pressure vessel. If required, the pneumatic test shall be conducted in accordance with § 61.25–16.

Subpart 61.40—Markings

6. Section 61.40–1(a) is amended to read as follows:

§ 61.40–1 Boilers.

(a) Upon satisfactory completion of the tests and inspection of a new boiler the following data shall be stamped on the front head of fire tube boilers and on the drum head of water tube boilers:

(Name of fabricator and serial number)

---- p.s.i.
(Maximum allowable pressure)

---- p.s.i.
(Hydro test pressure)

---- p.s.i.
(Steam test pressure)

(U.S.C.G. No.)

(C.G. Symbol)

(Inspector's initials)

(Month and year fabricated)

* * * * *

7. Section 61.40–5 is amended to read as follows:

§ 61.40–5 Unfired pressure vessels.

(a) After a marine inspector has examined a new pressure vessel subject to inspection and has determined that the vessel has been constructed in accordance with the applicable parts of this subchapter, and the vessel has satisfactorily withstood the required tests, the following data shall be stamped thereon:

(Name and address of fabricator)

---- p.s.i.
(Maximum allowable pressure)

---- p.s.i.
(Hydro test pressure)

(O.C.M.I. No., inspector's initials, and C.G. symbol)

(Mfr. serial No.)

(Month and year)

(Riveted, brz., welded (class))

(b) Those pressure vessels which must be pneumatically tested shall be stamped with "Pneumatic test pressure ____ p.s.i.".

SUBCHAPTER G—MARINE ENGINEERING INSTALLATIONS CONTRACTED FOR PRIOR TO JULY 1, 1935

PART 66—GENERAL

The authority for Part 66 is amended to read as follows:

AUTHORITY: The provisions of this Part 66 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426–4431, as amended, 4433, as amended, 4434, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404–409, 411, 412, 435, 481, 489, 366, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

PART 67—CONSTRUCTION

The authority for Part 67 is amended to read as follows:

AUTHORITY: The provisions of this Part 67 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426–4431, as amended, 4433, as amended, 4434, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404–409, 411, 412, 435, 481, 489, 366, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

PART 68—PIPING SYSTEMS

The authority for Part 68 is amended to read as follows:

AUTHORITY: The provisions of this Part 68 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426–4431, as amended, 4433, as amended, 4434, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404–409, 411, 412, 435, 481, 489, 366, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

PART 69—INSTALLATIONS, TESTS, INSPECTIONS, AND REPAIRS

The authority for Part 69 is amended to read as follows:

AUTHORITY: The provisions of this Part 69 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426–4431, as amended, 4433, as amended, 4434, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended; 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404–409, 411, 412, 435, 481, 489, 366, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

SUBCHAPTER H—PASSENGER VESSELS

PART 70—GENERAL PROVISIONS

1. The authority for Part 70 is amended to read as follows:

AUTHORITY: The provisions of this Part 70 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4421, as amended, 4426, as amended, 4453, as amended, 4488, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, sec. 5, 49 Stat. 1384, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362; 404, 399, 435, 481, 366, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 70.05—Application

§ 70.05–1 [Amended]

2. Section 70.05–1 *United States flag vessels subject to the requirements of this subchapter* is amended by revising in paragraph (a) in footnote 6 in Table 70.05–1(a) the title from "International Convention for the Safety of Life at Sea,

1948," to "International Convention for Safety of Life at Sea, 1960."

§ 70.05–3 [Amended]

3. Section 70.05–3 *Foreign vessels subject to the requirements of this subchapter* is amended by changing in subparagraph (b)(1) the title from "International Convention for the Safety of Life at Sea, 1948," to "International Convention for Safety of Life at Sea, 1960."

4. Section 70.05–10 is amended to read as follows:

§ 70.05–10 Application to vessels on an international voyage.

(a) Where, in various places or portions of this subchapter, requirements are stipulated specifically for "vessels on an international voyage", it is intended that these requirements apply only to vessels subject to the International Convention for Safety of Life at Sea, 1960, which are mechanically propelled on an international voyage as defined in § 70.10–21, and certificated to carry more than 12 passengers.

(b) In accordance with Regulation 4, Chapter I (General Provisions), of the International Convention for Safety of Life at Sea, 1960, a vessel which is not normally engaged on an international voyage but which, in exceptional circumstances, is required to undertake a single international voyage may be exempted by the Commandant from any of the requirements of the Regulations of the Convention: *Provided*, That it complies with safety requirements which are adequate in his opinion for the voyage which is to be undertaken.

(c) In accordance with Regulation 1(c), Chapter II (Construction), of the International Convention for Safety of Life at Sea, 1960, the Commandant may, if he considers that the sheltered nature and conditions of the voyage are such as to render the application of any specific requirements of Chapter II of this Convention unreasonable or unnecessary, exempt from those requirements individual vessels or classes of vessels which, in the course of their voyage, do not proceed more than 20 miles from the nearest land.

(d) In accordance with Regulation 3(a), Chapter III (Lifesaving Appliances, Etc.), of the International Convention for Safety of Life at Sea, 1960, the Commandant, if he considers that the sheltered nature and conditions of the voyage are such as to render the application of the full requirements of Chapter III of this Convention unreasonable or unnecessary, may to that extent exempt from the requirements of Chapter III individual vessels or classes of vessels which, in the course of their voyage, do not go more than 20 miles from the nearest land.

Subpart 70.10—Definition of Terms Used in This Subchapter

4a. Section 70.10–21 is amended to read as follows:

§ 70.10–21 International voyage.

(a) The term "international voyage" as used in this subchapter shall have the same meaning as that contained in Regulation 2(d), Chapter I of the International Convention for Safety of Life at Sea, 1960, i.e., " 'International voyage' means a voyage from a country to which the present Convention applies to a port outside such country, or conversely; and for this purpose every territory for the international relations of which a Contracting Government is responsible or for which the United Nations are the administering authority is regarded as a separate country."

(b) The International Convention for Safety of Life at Sea, 1960, does not apply to vessels "solely navigating the Great Lakes of North American and the River St. Lawrence as far east as a straight line drawn from Cap de Roslers to West Point, Anticosti Island and, on the north side of Anticosti Island, the 63d Meridian." Accordingly, such vessels shall not be considered as being on an "international voyage" for the purpose of this subchapter.

(c) For the purposes of this subchapter the term "territory" as used in paragraph (a) of this section shall be considered to include the Commonwealth of Puerto Rico, the Canal Zone, all possessions of the United States, and all lands held by the United States under a protectorate or mandate.

(d) In addition, although voyages between the continental United States and Hawaii or Alaska, and voyages between Hawaii and Alaska are not "international voyages" under the provisions of the International Convention for Safety of Life at Sea, 1960, such voyages are similar in nature and shall be considered as "international voyages" and subject to the same requirements for the purposes of this subchapter.

5. Subpart 70.10 is amended by inserting after § 70.10–29 a new section 70.10–30 reading as follows:

§ 70.10–30 Nuclear vessel.

(a) A nuclear vessel is a vessel provided with a nuclear power plant for propulsion or any other purpose, or any vessel handling or processing substantial amounts of radioactive material other than as cargo.

Subpart 70.15—Equivalents

6. Section 70.15–1(a) is amended to read as follows:

§ 70.15–1 Conditions under which equivalents may be used.

(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 any particular provision shall be made or arrangement shall be adopted, 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 he shall have been satisfied by suitable trials that the fitting, material, appliance, apparatus, or equipment, or type thereof, or the provision or arrangement shall be at least as effective as that specified in this subchapter.

Subpart 70.20—General Marine Engineering Requirements

7. Section 70.20–5 is amended to read as follows:

§ 70.20–5 Nuclear vessels.

(a) Nuclear vessels shall comply with the applicable requirements in Subpart 57.30 of Part 57 of Subchapter F (Marine Engineering) of this chapter. The regulations covering the transportation and handling of radioactive materials as cargo are contained in Part 146 of Subchapter N (Dangerous Cargoes) of this chapter.

PART 71—INSPECTION AND CERTIFICATION

1. The authority for Part 71 is amended to read as follows:

AUTHORITY: The provisions of this Part 71 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4418, as amended, 4421, as amended, 4426, as amended, 4433, as amended, 4453, as amended, 4488, as amended, 4490, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, sec. 5, 49 Stat. 1384, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 392, 399, 404, 411, 435, 481, 482, 489, 366, 395, 363, 369, 367, 528p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857. Additional authority cited with sections affected.

Subpart 71.20—Initial Inspection

1a. Section 71.20–15 is amended to read as follows:

§ 71.20–15 Scope of inspections.

(a) The initial inspection, which may consist of a series of inspections during the construction of a vessel, shall include a complete inspection of the structure, machinery, and equipment, including the outside of the vessel's bottom, and the inside and outside of the boilers. The inspection shall be such as to insure that the arrangements, materials, and scantlings of the structure, boilers and other pressure vessels and their appurtenances, piping, main and auxiliary machinery, electrical installations, lifesaving appliances, fire detecting and extinguishing equipment, pilot ladders, and other equipment fully comply with the applicable regulations for such vessel and are in accordance with approved plans, and that the radio installations, including fixed and portable radios for lifeboats, are in accordance with the requirements of the Federal Communications Commission. The inspection shall also be such as to insure that the workmanship of all parts of the vessel and its equipment is in all respects satisfactory and that the vessel is provided with lights, means of making sound signals and distress signals as required by applicable regulations and the applicable "Rules of the Road."

(b) For nuclear vessels, the foregoing inspections shall be made except insofar

as they may be limited by the presence of radiation. In addition, the inspection shall include any special requirements of the vessel's "Safety Assessment."

Subpart 71.25—Annual Inspection

2. Section 71.25–10 is amended to read as follows:

§ 71.25–10 Scope of inspections.

(a) The annual inspection shall include an inspection of the structure, boilers, and other pressure vessels, machinery and equipment. The inspection shall be such as to insure that the vessel, as regards the structure, boilers and other pressure vessels, and their appurtenances, piping, main and auxiliary machinery, electrical installations, lifesaving appliances, fire detecting and extinguishing equipment, pilot ladders, and other equipment is in satisfactory condition and fit for the service for which it is intended, and that it complies with the applicable regulations for such vessels, and that the radio installations, including fixed and portable radios for lifeboats, are in compliance with the requirements of the Federal Communications Commission. The lights and means of making sound signals and the distress signals carried by the vessel shall also be subject to the above-mentioned annual inspection for the purpose of insuring that they comply with the requirements of the applicable regulations and the applicable "Rules of the Road."

(b) For nuclear vessels, the foregoing inspections shall be made except insofar as they may be limited by the presence of radiation. In addition, the inspection shall include any special requirements of the vessel's "Safety Assessment."

3. Section 71.25–15(a) is amended by redesignating subparagraph (7) as subparagraph (8) and by inserting a new subparagraph (7), so that subparagraphs (7) and (8) read as follows:

§ 71.25–15 Lifesaving equipment.

* * * * *

(a) * * *

(7) Where launching devices for inflatable liferafts are installed, the launching device shall be proof tested with a weight equal to the raft and its full complement of persons and equipment.

(8) All other items of lifesaving equipment shall be examined to determine that they are in suitable condition.

* * * * *

4. Subpart 71.75, consisting of § 71.75–1, is amended to read as follows:

Subpart 71.75—Certificates Under the International Convention for Safety of Life at Sea, 1960

Sec.

§ 71.75–1 Application.

(a) The provisions of this subpart shall apply to all vessels on an international voyage.

§ 71.75–5 Passenger Ship Safety Certificate or Nuclear Passenger Ship Safety Certificate.

(a) All vessels on an international voyage are required to have a "Passenger Ship Safety Certificate" or a "Nuclear Passenger Ship Safety Certificate," as appropriate.

(b) All such vessels shall meet the requirements of this chapter for vessels on an international voyage.

§ 71.75–10 Exemption Certificate.

(a) A vessel may be exempted by the Commandant from complying with certain requirements of the Convention under his administration upon request made in writing to him and transmitted via the Officer in Charge, Marine Inspection.

(b) When an exemption is granted to a vessel by the Commandant under and in accordance with the Convention, an Exemption Certificate describing such exemption shall be issued through the appropriate Officer in Charge, Marine Inspection, in addition to the Passenger Ship Safety Certificate.

(c) Nuclear vessels cannot be exempted for any requirements of the International Convention for Safety of Life at Sea, 1960.

§ 71.75–15 Posting of Convention certificates.

(a) The certificates described in this subpart, or certified copies thereof, when issued to a vessel shall be posted in a prominent and accessible place on the vessel.

(b) The certificate shall be carried in a manner similar to that described in § 71.01–5 for a certificate of inspection.

§ 71.75–20 Duration of certificates.

(a) The certificates shall be issued for a period of not more than 12 months.

(b) An Exemption Certificate shall not be valid for longer than the period of the Passenger Ship Safety Certificate to which it refers.

(c) The Passenger Ship Safety Certificate or the Nuclear Passenger Ship Safety Certificate may be withdrawn, revoked, or suspended at any time when it is determined the vessel is no longer in compliance with applicable requirements. (See § 2.01–70 of this chapter for procedures governing appeals.)

PART 72—CONSTRUCTION AND ARRANGEMENT

1. The authority for Part 72 is amended to read as follows:

AUTHORITY: The provisions of this Part 72 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4418, as amended, 4421, as amended, 4426, as amended, 4423, as amended, 4453, as amended, 4488, as amended, 4490, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, sec. 5, 49 Stat. 1384, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 8, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 392, 399, 404, 411, 435, 481, 482, 489, 366, 395, 363, 369, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857. Additional authority cited with sections affected.

Subpart 72.05—Structural Fire Protection

1a. Section 72.05–1(b) is amended to read as follows:

§ 72.05–1 Application.

* * * * *

(b) The provisions of this subpart, with the exception of § 72.05–90, shall apply to all vessels noted in paragraph (a) of this section contracted for on or after May 26, 1965. Such vessels contracted for prior to May 26, 1965, shall meet the requirements of § 72.05–90.

2. Section 72.05–10 is amended by revising paragraphs (c) and (p) to read as follows:

§ 72.05–10 Type, location, and construction of fire control bulkheads and decks.

* * * * *

(c) All bulkheads and decks shall be classed as A–60, A–30, A–15, A–0, B–15, B–0, or C, depending upon the type of space on each side of the bulkhead or above and below the deck.

(1) Bulkheads or decks of the "A" Class shall be composed of steel or equivalent metal construction, suitably stiffened and made intact with the main structure of the vessel, such as shell, structural bulkheads, and decks. They shall be so constructed that, if subjected to the standard fire test, they would be capable of preventing the passage of smoke and flame for 1 hour. In addition, they shall be so insulated with approved structural insulation, bulkhead panels, or deck covering that the average temperatures on the unexposed side would not rise more than 250° F. above the original temperature, nor would the temperature at any one point, including any joint, rise more than 325° F. above the original temperature, within the time listed below:

Class A–60____ 60 minutes.
Class A–30____ 30 minutes.
Class A–15____ 15 minutes.
Class A–0_____ 0 minutes (i.e., no insulation requirements).

(2) Bulkheads of the "B" Class shall be constructed with approved incombustible materials and made intact from deck to deck (or to ceiling as provided in paragraph (h) of this section) and to shell or other boundaries. They shall be so constructed that, if subjected to the standard fire test, they would be capable of preventing the passage of flame for ½ hour. In addition, their insulation value shall be such that the average temperature of the unexposed side would not rise more than 250° F. above the original temperature, nor would the temperature at any one point, including any joint, rise more than 405° F. above the original temperature within the time listed below:

Class B–15____ 15 minutes.
Class B–0_____ 0 minutes (i.e., no insulation requirements).

(3) Class C bulkheads or decks shall be constructed of approved incombustible materials, but need meet no requirements relative to the passage of flame nor the limiting of temperature rise.

* * * * *

(p) Decking within surgical operating rooms shall be of a type which is acceptably conductive to prevent accumulation of dangerous electrostatic charges, and shall be in general agreement with "Code for Flammable Anesthetics," of issue in effect at the time the construction or alteration of the vessel is contracted for, published by the National Fire Protection Association, 60 Batterymarch Street, Boston, Mass., 02100.

§ 72.05–90 [Amended]

3. Section 72.05–90 *Vessels contracted for prior to May 26, 1965* is amended by changing the date in the headnote, paragraph (c) (two times), and paragraph (d) from "January 1, 1962" to "May 26, 1965."

PART 73—WATERTIGHT SUBDIVISION

1. The authority for Part 73 is amended to read as follows:

AUTHORITY: The provisions of this Part 73 issued under R.S. 4405, as amended 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4417, as amended, 4418, as amended, 4426, as amended, 4488, as amended, 4490, as amended, sec. 3, 24 Stat. 129, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, sec. 2, 45 Stat. 1493, as amended, sec. 2, 49 Stat. 888, as amended, sec. 5, 49 Stat. 1384, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 392, 404, 481, 482, 463, 395, 363, 55a, 68a, 369, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 21, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4394; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–36, Oct. 26, 1959, 24 F.R. 8867; 167–49, Oct. 19, 1962, 27 F.R. 10504.

Subpart 73.01—Application

1a. Section 73.01–1(a) is amended to read as follows:

§ 73.01–1 General.

(a) The provisions of this part, with the exception of Subpart 73.90, shall apply to all vessels contracted for on or after May 26, 1965. Vessels contracted for prior to May 26, 1965, shall meet the requirements of Subpart 73.90.

Subpart 73.05—Definitions

2. Section 73.05–10 is amended to read as follows:

§ 73.05–10 Machinery space.

(a) The machinery space is defined as extending from the [illegible] the margin line and between the [illegible] main transverse watertight [illegible] bounding the spaces containing the [illegible] and auxiliary propelling machinery, boilers serving the needs of propulsion, and all permanent coal bunkers. In the case of unusual arrangements the Commandant may define the limits of the machinery space.

* * * * *

Subpart 73.10—Rules for Subdivision—Vessels on International Voyages and Vessels of 150 Gross Tons and Over in Ocean and or Coastwise Service

3. Subpart 73.10 is amended by inserting after § 73.10–20 a new § 73.10–23 reading as follows:

§ 73.10–23 Vessels especially required to have a factor of subdivision not more than 0.5.

(a) Irrespective of the results of application of § 73.10–20, any vessel 430 feet in length or longer shall have a factor of subdivision of not more than 0.5 if the value of "*X*" as given by either of the following formulae is equal to or exceeds the values given in Table 73.10–23(a), whichever is the greater:

$$X=\frac{(M+2P)}{V} \text{ or } \frac{(M+2P_1)}{V+P_1-P}$$

where:

M = the volume of the machinery space, as defined in § 73.05–10, with the addition thereto of the volume of any permanent oil fuel bunkers which may be situated above the inner bottom and before or abaft the machinery space.

P = the whole volume of the passenger spaces below the margin line, as defined in § 73.05–11.

V = the whole volume of the vessel below the margin line.

P_1 = 0.6LN, but not more than the sum of P and the whole volume of the actual passenger spaces above the margin line or 0.4LN, whichever is less.

L = length of the vessel in feet, as defined in § 73.05–8.

N = number of passengers for which the vessel is to be certificated.

TABLE 73.10–23(a)

L	"X"
430	1.338
440	1.295
450	1.220
460	1.174
470	1.117
480	1.060
490	1.002
500	.944
510	.885
520	.826
530	.768
540	.709
550	.645
554 and up	.625

Interpolate for intermediate values.

4. Section 73.10–35(a) is amended to read as follows:

§ 73.10–35 Additional subdivision at forward end.

(a) In vessels 330 feet in length and upward one of the main transverse bulkheads of the forepeak shall be fitted at a distance from the forward perpendicular [illegible] is not greater than the [illegible]

Subpart 73.25—Double Bottoms

5. Section 73.25–5 is amended by revising paragraphs (b), (c), and (d) to read as follows:

§ 73.25–5 Extent of double bottoms.

* * * * *

(b) In vessels 165 feet and under 200 feet in length a double bottom shall be fitted at least from the machinery space to the forepeak bulkhead, or as near thereto as practicable.

(c) In vessels 200 feet and under 249 feet in length a double bottom shall be fitted at least outside the machinery space, and shall extend to the fore and afterpeak bulkheads, or as near thereto as practicable.

(d) In vessels 249 feet in length and upwards a double bottom shall be fitted amidships and shall extend to the fore and afterpeak bulkheads or as near thereto as practicable.

6. Section 73.25–10(a) is amended to read as follows:

§ 73.25–10 Wells in double bottoms.

(a) Small wells constructed in the double bottom in connection with drainage arrangements of holds, etc., shall not extend downward more than necessary. The depth of the well shall in no case be more than the depth less 18 inches of the double bottom at the center line, nor shall the well extend below the horizontal plane referred to in § 73.25–5 (e). A well extending to the outer bottom is, however, permitted at the after end of the shaft tunnel of screw vessels. Other wells, such as for lubricating oil under main engines, may be permitted by the Commandant, if satisfied that the arrangements give protection equivalent to that afforded by a double bottom complying with this section.

Subpart 73.30—Penetrations and Openings in Watertight Bulkheads

7. Section 73.30–25(b) is amended to read as follows:

§ 73.30–25 Watertight door limitations.

* * * * *

(b) *Machinery space doors.* (1) Within spaces containing the main and auxiliary propelling machinery including boilers serving the needs of propulsion and all permanent bunkers, not more than one door apart from the doors to bunkers and shaft tunnels may be fitted in each main transverse bulkhead. Where two or more shafts are fitted, the tunnels shall be connected by an intercommunicating passage. There shall be only one door between the machinery space and the tunnel spaces where not more than two shafts are fitted and only two doors where there are more than two shafts. Except as provided in § 73.30–25(b), all these doors shall be of the sliding type and shall be located as to be above their sills as high as practicable. The hand gear for operating these doors from above the bulkhead deck shall be situated outside the machinery [illegible] the machinery is [illegible] satisfactory [illegible] necessary gearing.

Subpart 73.35—Watertight Bulkhead Doors

8. Section 73.35–10 is amended by revising paragraphs (b) and (c) to read as [illegible]

§ 73.35–10 Class 2 doors, permissible locations.

* * * * *

(b) When the number of watertight doors which may be sometimes opened at sea, and whose sills are below the deepest subdivision loadline (excluding doors at entrance to shaft tunnels) does not exceed five and the ship has no passenger spaces below the bulkhead deck, these watertight doors and the shaft tunnel doors shall be of sliding type but may be hand operated (Class 2).

(c) When the total number of watertight doors which may be sometimes opened at sea, and whose sills are below the deepest subdivision loadline, does not exceed two and they are into or within the space containing machinery, these two doors shall be of sliding type but may be hand operated (Class 2).

9. Section 73.35–15(a) is amended to read as follows:

§ 73.35–15 Class 3 doors, required locations.

(a) When the number of watertight doors which may be sometimes opened at sea, and whose sills are below the deepest subdivision loadline (excluding doors at entrance to shaft tunnels) exceeds five, or where the vessel has passenger spaces below the bulkhead deck, all of these doors and those at the entrance to shaft tunnels or ventilation or forced draft ducts shall be power operated (Class 3), and shall be capable of being simultaneously closed from a central station situated on the bridge.

Subpart 73.90—Vessels Contracted for Prior to May 26, 1965

10. The title for Subpart 73.90 is amended by changing the date from "January 1, 1962," to "May 26, 1965," so that it reads as set forth above.

§ 73.90–1 [Amended]

11. Section 73.90–1 *Requirements* is amended by changing in the introductory sentence of paragraph (a) the date from "January 1, 1962," to "May 26, 1965."

PART 74—STABILITY

1. The authority for Part 74 is amended to read as follows:

AUTHORITY: The provisions of this Part 74 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4417, as amended, 4418, as amended, 4426, as amended, 4488, as amended, 4490, as amended, sec. 3, 24 Stat. 129, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, sec. 2, 45 Stat. 1493, as amended, sec. 2, 49 Stat. 883, as amended, sec. 5, 49 Stat. 1334, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 63 Stat. 675; 46 U.S.C. 391, 392, 404, 481, 483, 488, 395, 363, 85a, 88a, 369, 367, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 6857; 167–46, Oct. 19, 1962, 27 F.R. 10504.

Subpart 74.01—Application

1a. Section 74.01–1 is amended by adding a new paragraph (b) reading as follows:

§ 74.01–1 General.

* * * * *

(b) The provisions of this part, with the exception of Subpart 74.90, shall apply to all the vessels noted in paragraph (a) of this section, which are contracted for on or after May 26, 1965. Such vessels contracted for prior to May 26, 1965, shall meet the requirements of Subpart 74.90.

Subpart 74.10—Stability Standards

2. Section 74.10–15 is amended by cancelling paragraph (e), by revising subparagraphs (a)(1) and (c)(8), and by revising Table 74.10–15(c)(4) in subparagraph (c)(4), which read as follows:

§ 74.10–15 Damaged stability standards.

(a) *Application.* (1) The provisions of this section shall apply to all vessels that are required by Subparts 73.10 and 73.15 of this subchapter to have at least a one-compartment standard of subdivision.

* * * * *

(c) *Damaged stability calculations.*

* * *

(4) * * *

TABLE 74.10–15(c)(4)

Vessel category	Longitudinal extent [1]	Transverse extent [2] [3]	Vertical extent
All vessels	10 feet+0.03L or 35 feet (whichever is less) no main bulkhead involved.	⅛B	From base line upward without limit.
Vessels required by Subpart 73.15 to have a two compartment standard of subdivision.	35 feet or 10 feet+0.03L (whichever is less) involving not more than one main bulkhead.	⅛B	From base line upward without limit.
Vessels required by Subpart 73.10 to have a factor of subdivision of 0.50 or less.	10 feet+0.03L or 35 feet (whichever is less) involving not more than one main bulkhead.	⅛B	From base line upward without limit.
	20 feet+0.04L, involving not more than one main bulkhead.	⅛B	Top of double bottom upward without limit.
Vessels required by Subpart 73.10 to have a factor of subdivision of 0.33 or less.	30 feet+0.04L, but in any case long enough to involve two main bulkheads	⅛B	From base line upward without limit.

[1] L equals the length of the vessel as defined in § 73.05–3.
[2] B equals the breadth of the vessel as defined in § 73.05–4.
[3] The transverse extent of damage is measured inboard from the vessel's side and at right angles to the centerline at the level of the deepest subdivision load line. For vessels on inland waters and for ferry vessels, where the maximum molded beam at the deck and at the load water line differ appreciably, the transverse extent of damage may be taken as the mean between the inboard penetration at the deck using the maximum beam at the deck and the inboard penetration at the deepest subdivision load line using the maximum beam at that load line.

* * * * *

(8) For unsymmetrical flooding with assumed side damage in excess of 10 feet plus 0.03*L*, the remaining heel due to unsymmetrical moment, after equalization as provided by subparagraph (5) of this paragraph shall not exceed 15 degrees.

* * * * *

(e) [Canceled.]

Subpart 74.90—Vessels Contracted for Prior to May 26, 1965

3. Part 74 is amended by adding after § 74.25–1 a new Subpart 74.90 entitled "Vessels Contracted for Prior to May 26, 1965," and containing § 74.90–1 reading as follows:

§ 74.90–1 Requirements.

(a) Vessels contracted for prior to May 26, 1965, shall meet the requirements specified in this section.

(b) Except as otherwise provided in this section, existing arrangements, materials, and facilities previously approved will be considered satisfactory so long as they meet the minimum requirements of this section and they are maintained in a suitable condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs and alterations may be made to the original standards.

(c) In general, the standards of stability previously attained should be maintained. In this regard, and particularly with respect to § 74.10–15, no change or modification should result in a lowering of stability farther below that required for a new vessel than existed before the change or modification. This is intended to include the normal additions and subtractions which occur over the life of the vessel.

PART 75—LIFESAVING EQUIPMENT

1. AUTHORITY: The provisions of this Part 75 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4417, as amended, 4418, as amended, 4426, as amended, 4488, as amended, 4491, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 63 Stat. 675; 46 U.S.C. 391, 392, 404, 481, 489, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 6521; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 6857.

Subpart 75.10—Lifeboats, Lifecrafts, Lifefloats, and Buoyant Apparatus

1a. Section 75.10–1 is amended to read as follows:

§ 75.10–1 Application.

(a) Except as otherwise provided in this section, the provisions of this subpart shall apply to all vessels contracted for on or after May 26, 1965.

(b) Vessels contracted for prior to May 26, 1965, shall meet the requirements of § 75.10–90.

2. Section 75.10–5 is amended by revising paragraph (a) and by revising paragraph (b)(1) and by adding a paragraph (b)(4), reading as follows:

§ 75.10–5 Type of lifeboats, liferafts, lifefloats, and buoyant apparatus required.

(a) *Lifeboats.* (1) All lifeboats shall be of an approved type, constructed in accordance with Subpart 160.035 of Subchapter Q (Specifications) of this chapter.

(2) All lifeboats certified to carry 60 or more, but not over 100, persons shall be either motor lifeboats or shall be fitted with an approved type of hand-propelling gear. Lifeboats carrying more than 100 persons shall be motor lifeboats.

(3) A Class 1 motor lifeboat is one that is fitted with a compression ignition engine, is capable of being readily started in all conditions, and has sufficient fuel for 24 hours continuous operation. The speed ahead in smooth water when loaded with its full complement of persons and equipment shall be at least 6 knots.

(4) A Class 2 motor lifeboat shall meet the Class 1 requirements, and in addition, shall be fitted with a search light constructed in accordance with Subpart 161.006 of Subchapter Q (Specifications) of this chapter.

(5) A Class 3 motor lifeboat shall meet the Class 2 requirements, and in addition, shall be fitted with a radio cabin and a radio installation complying with requirements of the Federal Communications Commission.

(6) All lifeboats, except those installed on vessels in river service, shall be fitted with suitable disengaging apparatus consisting of fixed hooks in the lifeboat or mechanical disengaging apparatus. Mechanical disengaging apparatus, if fitted, shall be of an approved type, constructed in accordance with Subpart 160.033 of Subchapter Q (Specifications) of this chapter.

(i) All lifeboats installed on ocean, coastwise, or Great Lakes vessels of over 3,000 gross tons shall be fitted with mechanical disengaging apparatus so arranged as to make it possible for the lifeboats to be launched with their full complement of persons and equipment while such vessels are underway or stopped, and for both ends of the lifeboat to be released simultaneously, under tension or not, by one person. Simultaneous release shall be effected by partially rotating a shaft which shall be continuous and extend from points of contact with the hooks.

(ii) All lifeboats installed on any particular vessel shall be fitted with the same type of releasing gear.

(b) *Liferafts.* (1) All rigid type liferafts shall be of an approved type, constructed in accordance with Subpart 160.018 of Subchapter Q (Specifications) of this chapter. Rigid type liferafts shall not be used as required equipment on vessels on an international voyage.

* * * * *

(4) On vessels on an international voyage, each inflatable liferaft shall have a carrying capacity of not less than 6 nor more than 25 persons.

3. Section 75.10–10 is amended to read as follows:

§ 75.10–10 Requirements for vessels in ocean service.

(a) *Lifeboats.* (1) Except as further noted in this paragraph, all vessels shall be provided with sufficient lifeboats on each side of such aggregate capacity as will accommodate half the total number of persons on board.

(2) Lifeboats shall be not less than 24 feet in length, except where owing to size of the vessel, or for other reasons, the Commandant considers the carriage of such lifeboats to be unreasonable or impracticable. However, in no case shall lifeboats be less than 16 feet in length.

(3) Emergency lifeboats: One of the lifeboats on each side of the vessel shall be of suitable size and design for performing emergency work at sea. Such lifeboats shall be not more than 28 feet in length and the ratio of length to beam shall be not less than 3.3. They shall be kept ready for immediate use while the vessel is at sea.

(4) All vessels shall be provided with the minimum number of motor lifeboats as shown in Table 75.10–10(a)(4). In those cases where at least two motor lifeboats are required, these shall be one on each side. On vessels of over 2,500 gross tons which in the normal course of their voyage are at any point 200 miles offshore, if a Class 3 motor lifeboat is not installed, an approved portable radio unit shall be carried by the vessel in addition to the one required by § 75.55–1.

TABLE 75.10–10(a)(4)

Total number of persons carried		Minimum number Class 2 motor lifeboats	Minimum number Class 3 motor lifeboats
Over	Not over		
-----	30	1	----------
30	199	2	----------
199	1,500	1	1
1,500	--------	----------	2

(5) On vessels on an international voyage other than a short international voyage, the Commandant may permit liferafts to be substituted for lifeboats required by subparagraph (1) of this paragraph to the extent that there shall never be less than sufficient lifeboats on each side of the vessel to accommodate 37½ percent of the total number of persons on board. In such cases, there shall be provided approved launching devices for these liferafts in accordance with Subpart 75.27.

(6) Where, in the case of vessels on short international voyages it is shown that the carriage of sufficient lifeboat capacity to accommodate all persons on board, as called for by subparagraph (1) of this paragraph, is impracticable, the Commandant may permit a relaxation from this requirement to the extent permitted by Regulations 27 and 28 of Chapter III of the International Convention for the Safety of Life at Sea, 1960, provided the vessel complies fully with the special watertight subdivision requirements of § 73.10–65 of this subchapter.

(7) Vessels not exceeding 150 feet in length which are under 300 gross tons engaged exclusively in the business of transporting passengers to or from operational sites of exploration, development, removal or storage of resources, or related activities thereof, on the continental shelf of the United States in the Gulf of Mexico, in the Atlantic Ocean south of the thirty-third parallel of north latitude, and in the Pacific Ocean, may use approved lifefloats in lieu of lifeboats if a suitable emergency boat is carried and is adequately installed. For the purpose of this subparagraph the word "passengers" is defined as meaning industry personnel engaged exclusively in the exploration, development, removal and storage of resources, or related activities thereof, on the continental shelf of the United States who are required by the nature of their work to ride such vessels. Vessels subject to this subparagraph may also carry supplies, equipment, and cargo.

(8) For vessels not on an international voyage, inflatable liferafts may be substituted for lifeboats on certain vessels in accordance with § 75.10–25.

(b) *Liferafts, lifefloats, and buoyant apparatus.* (1) Vessels on an international voyage other than a short international voyage shall carry, in addition to any other required equipment, approved liferafts with an aggregate capacity of at least 25 percent of the persons on board together with approved buoyant apparatus with an aggregate capacity of at least 3 percent of the persons on board. However, if the factor of subdivision of the vessel is 0.33 or less, liferafts are not required, but approved buoyant apparatus shall be provided with an aggregate capacity of at least 25 percent of the persons on board.

(2) Vessels on a short international voyage shall carry, in addition to any other required equipment, approved liferafts with an aggregate capacity at least equal to 10 percent of the capacity of the lifeboats. In addition, there shall be carried sufficient approved buoyant apparatus so that the aggregate capacity of the buoyant apparatus and liferafts is at least equal to 25 percent of the persons on board.

(3) All vessels not on an international voyage shall be provided with buoyant apparatus sufficient to accommodate 25 percent of all persons on board. Lifefloats not weighing more than 400 pounds or Type A liferafts may be substituted for the buoyant apparatus required.

(4) Inflatable liferafts may be substituted for liferafts, lifefloats and buoyant apparatus on certain vessels not on an international voyage in accordance with § 75.10–25.

4. Section 75.10–15 is amended to read as follows:

§ 75.10–15 Requirements for vessels in coastwise service.

(a) Except as further modified by paragraphs (b) and (d) of this section, all other vessels to which this section pertains shall be provided with sufficient lifeboats and Type A liferafts to accommodate all persons on board. Not less than 75 percent of the total capacity

shall be in lifeboats and the remainder may be in liferafts. Such lifeboats shall have a length of at least 16 feet unless otherwise specifically permitted by the Officer in Charge, Marine Inspection, in cases where the crew is insufficient to properly handle lifeboats of such size or where there is insufficient space to properly stow such lifeboats.

(b) In the case of motor vessels of less than 300 gross tons and, if in the opinion of the Commandant it is unreasonable or impracticable to meet the requirements of paragraph (a) of this section, due to the size and arrangement of the vessel and its intended service, the Commandant may prescribe the size, capacity, and number of lifeboats, or other boats of suitable design and construction, liferafts, lifefloats, and/or buoyant apparatus to be carried as in his opinion is reasonable and practicable. In any case, there shall be sufficient total capacity for all persons on board.

(c) Inflatable liferafts may be substituted for lifeboats, liferafts, lifefloats and buoyant apparatus on certain vessels in accordance with § 75.10–25.

(d) Vessels engaged on international voyages shall meet the applicable requirements of § 75.10–10.

5. Section 75.10–20 is amended by adding a subparagraph (5) to paragraph (a), and by revising paragraph (b) (including Table 75.10–20(b)(1)) to read as follows:

§ 75.10–20 Requirements for vessels in Great Lakes; lakes, bays and sounds; or river service.

(a) *General.* * * *

(5) Vessels engaged on short international voyages shall meet applicable requirements of § 75.10–10.

(b) *Ferryboats.* (1) Except as otherwise provided in this paragraph, all ferryboats of 50 gross tons and over shall be equipped with lifeboats and liferafts in accordance with Table 75.10–20(b)(1).

TABLE 75.10–20(b)(1)

Size of ferryboat in gross tons		Cubic feet of lifeboatage required [1]
Over	Not over	
----------	150	60
150	300	120
300	600	[2] 240
600	----------	[2] 360

[1] For purposes of determining lifeboat capacity in persons for use in substituting inflatable liferafts in accordance with substitutions permitted by § 75.10–25, allow 10 cubic feet of lifeboatage per person.

[2] One-half of the required lifeboatage may be supplied by liferafts of Type A or B.

(2) Except as otherwise provided in this paragraph, ferryboats of less than 50 gross tons shall be equipped with lifeboats or Type A or B liferafts as in the opinion of the Officer in Charge, Marine Inspection, having jurisdiction may be necessary in case of disaster to secure the safety of all persons on board.

(3) Inflatable liferafts may be substituted for lifeboats, liferafts, lifefloats and buoyant apparatus on certain vessels in accordance with § 75.10–25.

(4) Ferryboats engaged on short international voyages shall meet the applicable requirements of § 75.10–10.

6. Section 75.10–25 is amended to read as follows:

§ 75.10–25 Inflatable liferafts as an alternate for lifeboats, other liferafts, lifefloats, and buoyant apparatus on certain vessels not on international voyage.

(a)(1) On all vessels inflatable liferafts may be permitted as substitutes for other types of liferafts, lifefloats and buoyant apparatus wherever they may be required.

(2) The capacity of inflatable liferafts carried in place of other liferafts, lifefloats, and buoyant apparatus shall be at least equivalent to that required of the equipment for which substitution is made.

(3) The substitution of inflatable liferafts shall not be made without prior approval of the Officer in Charge, Marine Inspection.

(b) On all vessels less than 3,000 gross tons the substitution of inflatable liferafts for lifeboats may be permitted as follows:

(1)(i) On all vessels under 500 gross tons, inflatable liferafts may be substituted for all required lifeboats.

(ii) The total capacity of the inflatable liferafts shall be at least equal to the total number of persons that the lifeboats would have been required to accommodate. Partial substitution is permissible provided the aggregate lifeboat and inflatable liferaft capacity is sufficient to accommodate the required number of persons, as indicated above.

(iii) Where substitution of inflatable liferafts is made, a suitable rescue boat shall be provided. In the case of partial substitution, a lifeboat may serve as the rescue boat.

(2)(i) On all vessels of 500 gross tons and upwards to 1,600 gross tons, inflatable liferafts may be substituted for all required lifeboats provided two approved lifeboats of a size acceptable to the Officer in Charge, Marine Inspection, suitable for rescue purposes, one on each side, are installed.

(ii) The aggregate lifeboats and inflatable liferaft capacity shall be at least equal to the total number of persons that the lifeboats would have been required to accommodate.

(iii) The launching arrangement and location of the two lifeboats to be used as rescue boats shall be such that they can be readily launched and shall be to the satisfaction of the Officer in Charge, Marine Inspection.

(3)(i) On all vessels of 1,600 gross tons and upwards to 3,000 gross tons, inflatable liferafts may be substituted for all except two of the required lifeboats. These lifeboats shall be of a size acceptable to the Officer in Charge, Marine Inspection, and shall be suitable for rescue purposes. In all cases, two approved lifeboats, one on each side, shall be provided.

(ii) The aggregate lifeboat and inflatable liferaft capacity shall be at least equal to the total number of persons that the lifeboats, for which substitutions are made plus those remaining on board, would have been required to accommodate.

(4) The substitution of inflatable liferafts for lifeboats shall not be made without prior approval of the Officer in Charge, Marine Inspection.

(c) The Commandant may give special consideration to the substitution of approved inflatable liferafts for required lifeboats on vessels of 3,000 gross tons and over.

7. Section 75.10–90 is amended to read as follows:

§ 75.10–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 75.10–5 through 75.10–25 shall be complied with insofar as the number and general type of lifesaving equipment is concerned. Existing items of lifesaving equipment previously approved, but not meeting the applicable specifications or requirements set forth in §§ 75.10–5 through 75.10–25 may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs, alterations, and replacements may be permitted to the same standards as the original installation. However, all new installations or major replacements shall meet the applicable specifications or requirements in this part.

(2) Vessels certificated for ocean service may comply with this subparagraph in lieu of subparagraph (4) of this paragraph. In this respect, vessels with 13 or less lifeboats shall have at least one motor lifeboat; vessels with over 13 but not over 19 lifeboats shall have 2 motor lifeboats, one of which shall have a searchlight and radio cabin; vessels with over 19 lifeboats shall have 2 motor lifeboats, both of which shall have a searchlight and radio cabin. If a vessel with 13 or less lifeboats is of over 2,500 gross tons and in the normal course of its voyage is at any point 200 miles offshore, the motor lifeboat shall be fitted with a radio cabin, or alternately, an approved portable radio unit shall be carried by the vessel in addition to that required by § 75.55–1. Existing motor lifeboat installations with spark ignition engines may be retained, but replacements shall meet current specifications.

(3) The substitution of liferafts for lifeboats permitted by § 75.10–10(a) (5) and (6) shall not apply.

(4) On vessels of over 3,000 gross tons certificated for ocean, coastwise, or Great Lakes service, all replacements of disengaging apparatus shall meet the requirements of § 75.10–5(a)(6)(i). On all other vessels in any service, all of the lifeboats on a particular vessel shall be

fitted with the same type of disengaging apparatus.

(5) Vessels certificated for coastwise service the keels of which were laid prior to July 2, 1915, during the interval between May 15 and September 15 in any one year, both dates inclusive, shall have sufficient lifeboats, liferafts, or buoyant apparatus to accommodate all persons on board, not more than 30 percent of which may be in buoyant apparatus and not more than a total of 65 percent may be in liferafts and buoyant apparatus.

Subpart 75.15—Stowage and Marking of Lifeboats, Liferafts, Lifefloats, and Buoyant Apparatus

8. Section 75.15–1(a) is amended to read as follows:

§ 75.15–1 Application.

(a) The provisions of this subpart, with the exception of § 75.15–90, shall apply to all vessels contracted for on or after May 26, 1965. Vessels contracted for prior to May 26, 1965, shall meet the requirements of § 75.15–90.

9. Section 75.15–10 is amended to read as follows:

§ 75.15–10 Stowage.

(a) Lifeboats, liferafts, lifefloats, and buoyant apparatus shall be stowed in such a manner that:

(1) They are capable of being launched in the shortest possible time.

(2) They shall not impede the launching or handling of other lifesaving appliances.

(3) They shall not impede the marshalling of persons at the embarkation stations, or their embarkation.

(4) They shall be capable of being put in the water safely and rapidly even under unfavorable conditions of list and trim.

(b) Lifeboat stowage shall be as follows:

(1) Every lifeboat shall be attached to a separate set of davits.

(2) Suitable access to the lifeboats shall be provided to enable the crew to prepare the lifeboats for launching.

(3) Lifeboats shall be so stowed that embarkation into them may be made rapidly and in good order.

(4) Lifeboats shall not be stowed in the bows of the vessel nor as far aft as to be endangered by the propellers or overhang of the stern.

(5) Lifeboats shall be so stowed that it shall not be necessary to lift them in order to swing out the davits.

(6) Lifeboats may be stowed on more than one deck, provided proper measures are taken to prevent lifeboats on a lower deck being fouled by those stowed on a deck above.

(7) Means shall be provided for bringing the lifeboats against the ship's side and holding them there so that persons may be safely embarked.

(8) Vessels in ocean or coastwise service shall be fitted with skates or other suitable means to facilitate launching against an adverse list of up to 15 degrees. However, skates may be dispensed with if, in the opinion of the Commandant, the arrangements are such as to insure that the lifeboats can be satisfactorily launched without such skates.

(9) Ocean and coastwise vessels fitted with radial davits shall, when the weather permits, have one of the lifeboats on each side swung out while at sea, griped in to a boom or rail, and ready for immediate use.

(10) On vessels in ocean and coastwise service, where applicable, means shall be provided outside the machinery space to prevent the discharge of water into the lifeboats while they are being lowered. This shall consist of baffles to deflect the water down the vessel's side, or reach rods, or other means to close the discharge openings.

(c) Liferaft stowage shall be as follows:

(1) Liferafts for which approved launching devices are required shall be distributed equally on each side of the ship and shall be stowed so as to be readily accessible to the launching device which serves them. They shall not be stowed in the bows of the vessel nor as far aft as to be endangered by the propellers or overhang of the stern. Such liferafts shall be capable of being put into the water loaded with their full complement of persons and equipment even with unfavorable conditions of trim and a list of 15 degrees either way.

(2) Means shall be provided outside the machinery space to prevent discharge of water into liferafts launched at fixed positions or from approved launching devices.

(3) The liferafts for which approved launching devices are not required shall be capable of being launched even with unfavorable conditions of trim and a list of 15 degrees either way.

(4) On vessels fitted with approved devices for launching liferafts, all liferafts shall be of a size and type which is capable of being launched from such devices.

(5) Type A liferafts shall be stowed on standard skids constructed in accordance with Subpart 160.042 of Subchapter Q (Specifications) of this chapter.

(6) Type B liferafts shall be stowed in such a manner that they may be readily launched.

(7) The additional liferaft required on Great Lakes vessels by Table 75.10–20(a) shall be stowed in such a manner that it will float clear in the event of sinking of the vessel. The requirements of the other subparagraphs in this paragraph need not be complied with for such liferaft.

(8) Inflatable liferafts shall be stowed in such a manner that they will float free in the event of the vessel sinking. Stowage and launching arrangements will be to the satisfaction of the Officer in Charge, Marine Inspection.

(d) Lifefloat and buoyant apparatus stowage shall be as follows:

(1) Lifefloats and buoyant apparatus shall be stowed in such a manner as to be readily launched. Lifefloats and buoyant apparatus exceeding 400 pounds in weight shall be stowed in such a manner as not to require lifting before launching.

(2) Lifefloats and buoyant apparatus shall not be secured to the vessel except by lashings which can be easily slipped. They may be stowed in tiers one above the other, but not more than four high. When stowed in tiers, the separate units shall be kept apart by suitable distance pieces.

(3) Means shall be provided to prevent shifting.

10. Section 75.15–90 is amended to read as follows:

§ 75.15–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) The provisions of §§ 75.15–5 through 75.15–15 shall be met except as further set forth in this paragraph.

(2) The requirements of § 75.15–10(b) (8) shall apply unless, in the opinion of the Officer in Charge, Marine Inspection, it is unreasonable or impracticable or the arrangements or construction of the vessel make the use of skates or similar appliances unnecessary.

(3) The requirements of § 75.15–10(b) (10) need only apply if it is deemed reasonable and practicable by the Officer in Charge, Marine Inspection.

(4) Existing vessels having nested lifeboats may continue such arrangements. However, no subsequent modification, replacement, or rearrangement may result in a greater capacity in the nested lifeboats nor a greater number of persons being permitted aboard the vessel.

Subpart 75.20—Equipment for Lifeboats, Liferafts, Lifefloats, and Buoyant Apparatus

11. Section 75.20–1(a) is amended to read as follows:

§ 75.20–1 Application.

(a) The provisions of this subpart, with the exception of § 75.20–90, shall apply to all vessels contracted for on or after May 26, 1965. Vessels contracted for prior to May 26, 1965, shall meet the requirements of § 75.20–90.

12. Section 75.20–10 is amended by revising Table 75.20–10(a) to read as follows:

§ 75.20–10 Required equipment for lifeboats.

* * * * *

TABLE 75.20-10(a)

Letter identification	Item	Ocean and coastwise	Great Lakes	Lakes, bays and sounds, and rivers
a	Bailer	1	1	None
b	Bilge pump	[1] 1	None	None
c	Boathooks	2	1	1
d	Bucket	2	1	1
e	Compass and mounting	1	None	None
f	Ditty bag	1	None	None
g	Drinking cups	1	None	None
h	Fire extinguishers (motor-propelled lifeboats only).	2	2	2
i	First aid kit	1	None	None
j	Flashlight	1	1	None
k	Hatchets	2	2	1
l	Heaving line	2	None	None
m	Jackknife	1	None	None
n	Ladder, lifeboat gunwale	1	None	None
o	Lantern	1	1	1
p	Lifeline	1	1	1
q	Life preservers	2	2	2
r	Locker	1	1	None
s	Mast and sail (oar-propelled lifeboats only)	1	None	None
t	Matches (boxes)	2	1	1
u	Milk, condensed (pounds per person)	1	None	None
v	Mirrors, signaling	2	None	None
w	Oars	[2] 1 unit	[2] 1 unit	[2] 1 unit
x	Oil, illuminating (quarts)	1	1	None
y	Oil, storm (gallons)	1	1	None
z	Painter	2	2	1
aa	Plugs	1	1	1
bb	Provisions (pounds per person)	2	None	None
cc	Radio installation	[3] 1	None	None
dd	Rowlocks	[2] 1 unit	[2] 1 unit	[2] 1 unit
ee	Rudder and tiller	1	1	None
ff	Sea anchor	1	1	None
gg	Searchlight	[3] 1	None	None
hh	Signals, distress, floating orange smoke	2	None	None
ii	Signals, distress, red hand flare	[3] 1 unit	[3] ½ unit	None
jj	Signals, distress, red parachute flare	[3] [4] 1 unit	[3] 1 unit	None
kk	Tool kit (motor-propelled lifeboats only)	[3] 1 unit	[3] 1 unit	[3] 1 unit
ll	Water (quarts per person)	3	None	None
mm	Whistle, signaling	1	None	None
nn	Fishing kit	1	None	None
oo	Cover, protecting	1	None	None
pp	Signals, lifesaving	1	None	None
qq	Desalting kit	[5] 1	None	None

[1] Motor-propelled lifeboats, certified for 100 or more persons, shall be fitted with an additional hand bilge pump of an approved type or a power bilge pump.
[2] For description of units, see § 75.20-15.
[3] Required only on motor-propelled lifeboats fitted with radio cabin, see § 76.10-5(a)(5).
[4] Vessels in coastwise service need only carry 1 unit for each 5 lifeboats or fraction thereof.
[5] Optional equipment. See § 75.20-15(11), water.

13. Section 75.20-15 is amended by revising paragraphs (g), (j), (w) (text only, Table 75.20-15(w) continued in effect), (gg) and (ll), and by adding new paragraphs (mm) through (qq), which read as follows:

§ 75.20-15 Description of equipment for lifeboats.

* * * * *

(g) *Drinking cups.* Drinking cups shall be enamel coated or plastic, graduated in ounces, and be provided with lanyards 3 feet in length.

* * * * *

(j) *Flashlight.* The flashlight shall be of an approved Type I, Size No. 3, constructed in accordance with Subpart 161.008 of Subchapter Q (Specifications) of this chapter. Three spare cells (or one 3-cell battery) and two spare bulbs, stowed in a watertight container, shall be provided with each flashlight. Batteries shall be replaced yearly during the annual stripping, cleaning, and overhaul of the lifeboat.

* * * * *

(w) *Oars.* A unit, consisting of a complement of rowing oars and a steering oar, shall be provided for each lifeboat in accordance with Table 75.20-15 (w), except that motor-propelled and hand-propelled lifeboats need only be equipped with 4 rowing oars and 1 steering oar. In any case, the emergency lifeboats shall be provided with the full complement of oars prescribed by the table. All oars shall be buoyant.

* * * * *

(gg) *Searchlight.* The searchlight shall be of an approved type, constructed in accordance with Subpart 161.006 of Subchapter Q (Specifications) of this chapter. If installed on a lifeboat equipped with a radio cabin, it shall be securely mounted to the top of the radio cabin and its source of power shall be capable of operating the light intermittently (10 minutes of continuous operation per hour) for a period of at least 3 hours. Where the power for the radio equipment and the searchlight are derived from the same source, it shall be sufficient to provide for adequate operation of both appliances. On lifeboats without a radio cabin, means shall be provided to mount it readily. The mounting may be of a portable type (stanchion type or collapsible type). The source of power shall be connected with watertight electrical fittings as required in Subpart 111.60 of Subchapter J (Electrical Engineering) of this chapter. When not in use, it shall be securely stowed safely, free from any possible damage. Two spare bulbs shall be provided with each installation.

* * * * *

(ll) *Water.* (1) For each person the lifeboat is certified to carry, there shall be provided 3 quarts of drinking water consisting of nine approved hermetically sealed containers per person constructed and filled in accordance with Subpart 160.026 of Subchapter Q (Specifications) of this chapter. The service life of this equipment shall be limited to 5 years from date of packing, and replacement of outdated containers shall be made at the first annual inspection of the vessel after the date of expiration. Approved desalting kits capable of producing an equal amount of drinking water may be substituted for not more than one-third of the drinking water required to be carried in the lifeboat.

(2) The drinking water containers shall be stowed in drinking water tanks, lockers, or other compartments providing suitable protection.

(mm) *Whistle, signaling.* The whistle shall be of the ball-type, of corrosion-resistant construction, with a 3-foot lanyard attached, and in good working order.

(nn) *Fishing kit.* The fishing kit shall be of approved type constructed in accordance with Subpart 160.061 of Subchapter Q (Specifications) of this chapter.

(oo) *Cover, protecting.* The protecting cover shall be of a highly visible color, and capable of protecting the occupants against injury by exposure.

(pp) *Table of lifesaving signals.* The table shall be in accordance with the provisions of Chapter V, Regulation 16, of the International Convention for Safety of Life at Sea, 1960, and shall be printed on water resistant paper.

(qq) *Desalting kit.* One or more approved desalting kits may be used as a substitute for one-third of the required amount of drinking water per person, and shall be in accordance with Subpart 160.058 of Subchapter Q (Specifications) of this chapter.

13a. Section 75.20-20(b) is amended to read as follows (but the note following it is retained without change):

§ 75.20-20 Required equipment for liferafts.

* * * * *

(b) Inflatable liferafts shall be equipped with ocean service equipment for vessels on ocean and coastwise routes and with limited service equipment for vessels on Great Lakes, lakes, bays, sounds, and river routes in accordance with Subpart 160.051 of Subchapter Q (Specifications) of this chapter.

14. Section 75.20-90 is amended to read as follows:

§ 75.20-90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§75.20-5 through 75.20-35 shall be complied with insofar as the number of items of equipment and the method of stowage of the equipment is concerned. Existing items of equipment previously approved, but not meeting the applicable specifications or requirements set forth in §§ 75.-20-5 through 75.20-35 may be continued in service so long as they are maintained

in a good condition to the satisfaction of the Officer in Charge, Marine Inspection. All new installations or replacements shall meet the applicable specifications or requirements in this part.

(2) Lifeboats previously approved without automatic drain plugs shall have two plugs or caps attached to the lifeboat by separate chains.

(3) Decked lifeboats shall have no drain holes or plugs, but shall be equipped with two bilge pumps.

(4) On vessels in ocean or coastwise service and contracted for prior to November 19, 1952, unless other approved means are provided to achieve the same purpose, three ½-inch diameter manila grablines shall be fitted extending from gunwale to gunwale under the keel to enable persons to cling to and climb upon the upturned lifeboat. The ends of each grabline shall be securely attached to the side benches or other permanent part of the lifeboat and each grabline shall be made up with figure eight knots spaced approximately 18 inches apart in order to provide hand grips. Means shall be provided for taking up any slack in the grablines.

Subpart 75.25—Davits for Lifeboats

15. The heading for Subpart 75.25 is amended to read "Davits for Lifeboats," as set forth above.

16. Section 75.25–1(a) is amended to read as follows:

§ 75.25–1 Application.

(a) The provisions of this subpart, with the exception of § 75.25–90, shall apply to all vessels contracted for on or after May 26, 1965. Vessels contracted for prior to May 26, 1965, shall meet the requirements of § 75.25–90.

17. Section 75.25–5(d) is amended to read as follows:

§ 75.25–5 General.

* * * * *

(d) All davits and necessary gear shall be such as to meet the requirements for the installation test set forth in Subpart 75.35. The design, arrangements, and installation shall be such as to preclude undue delay in getting the lifeboats into the water, and shall be of such strength that the lifeboats can be turned out manned by a launching crew and then safely lowered with the full complement of persons and equipment, with the ship listed to 15 degrees either way and with a 10-degree trim.

18. Section 75.25–10 is amended to read as follows:

§ 75.25–10 Requirements for vessels in ocean or coastwise service.

(a) All vessels shall be fitted with a set of approved gravity or mechanical davits for each lifeboat carried.

(b) All davit installations shall have two lifelines fitted to a davit span: *Provided,* That the span fitted to the davits which are used to handle the emergency lifeboats required by § 75.10–10(a)(3) shall have four such lifelines. The lifelines shall be of such length as to reach the water at the lightest seagoing draft with the vessel listed 15 degrees either way.

19. Section 75.25–90 is amended to read as follows:

§ 75.25–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 75.25–5 through 75.25–15 shall be complied with insofar as the number and general type of equipment is concerned. Existing items of equipment previously approved, but not meeting the applicable specifications or requirements set forth in §§ 75.25–5 through 75.25–15 may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs, alterations, and replacements may be made to the same standards as the original installation. However, all new installations or major replacements shall meet the applicable specifications or requirements in this subpart.

(2) On vessels the keels of which were laid after September 1, 1941, all davits for lifeboats weighing in excess of 5,000 pounds when fully equipped (but without persons) shall be of the gravity type.

(3) Existing vessels having nested lifeboats may continue such arrangements.

20. Part 75 is amended by inserting after § 75.25–90 a new Subpart 75.27, consisting of §§ 75.27–1 and 75.27–5, reading as follows:

Subpart 75.27—Inflatable Liferaft Launching Devices

§ 75.27–1 Application.

(a) The provisions of this subpart shall apply to all vessels on an international voyage on which liferafts were permitted to be substituted for lifeboats under the provisions of § 75.10–10(a)(5).

§ 75.27–5 General.

(a) All launching devices for putting liferafts loaded with persons in the water shall be of an approved type.

(b) The design, arrangement, and installation of all launching devices shall be such as to preclude any undue delay in getting the liferafts safely into the water loaded with their full complement of persons and equipment even with unfavorable conditions of trim and a list of 15 degrees either way. The design shall provide a factor of safety of at least 6 in these conditions, based upon the ultimate strength of the materials.

(c) Launching devices shall be so arranged that after the rafts are loaded with persons, they do not require lifting prior to being swung out or lowered.

(d) Launching devices shall be provided with suitable means for detaching the liferafts from the falls which is operable from inside the liferaft, or by an automatic release which shall operate when the weight of the loaded raft is waterborne; however, such an automatic release shall be limited to rafts which are suspended from a single attachment point.

(e) Launching devices shall be provided with means for rapidly retrieving the falls by hand power.

(f) The number of approved liferaft launching devices required to be provided and the number of liferafts allocated to each launching device shall be as determined by the Commandant, and shall be such that fully loaded liferafts and lifeboats of sufficient capacity to accommodate all persons on board can be put into the water in not more than 30 minutes in calm conditions.

(g) On vessels where approved liferaft launching devices are required, they shall be distributed equally on each side of the vessel, and in no case shall there be less than two launching devices, one on each side.

Subpart 75.30—Lifeboat Winches

21. Section 75.30–1(a) is amended to read as follows:

§ 75.30–1 Application.

(a) The provisions of this subpart, with the exception of § 75.30–90, shall apply to all vessels contracted for on or after May 26, 1965. Vessels contracted for prior to May 26, 1965, shall meet the requirements of § 75.30–90.

22. Section 75.30–10 is amended by adding a new paragraph (d) reading as follows:

§ 75.30–10 Number and type required.

* * * * *

(d) Lifeboat winches shall be fitted for each set of davits used for the emergency lifeboats, and in addition to meeting all other requirements for winches, the emergency lifeboat winch shall be capable of recovering the emergency lifeboat with its full complement of persons and equipment at a hoisting speed of not less than 20 feet per minute.

§ 75.30–15 [Amended]

22a. Section 75.30–15 *Installation* is amended by canceling paragraph (c).

23. Section 75.30–90 is amended to read as follows:

§ 75.30–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specially modified by this paragraph, the requirements of §§ 75.30–5 through 75.30–15 shall be complied with insofar as the number and general type of equipment is concerned. Existing items of equipment previously approved, but not meeting the applicable specifications or requirements set forth in §§ 75.30–5 through 75.30–15 may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. However, all new installations or major replacements shall meet the applicable specifications or requirements in this part.

(2) Vessels certificated for river service need not comply with the requirements of § 75.30–10(a).

(3) Existing arrangements previously approved, but not meeting the requirements of § 75.30–10(d) or § 75.30–15(a), need not be changed. However, new installations or major alterations should conform with such requirements where reasonable and practicable.

(4) Where lifeboat winches are used with gravity davits, the installation shall comply with the requirements contained in § 160.015–3(k), of Subpart 160.015 (Lifeboat Winches) of Subchapter Q (Specifications) of this chapter.

(5) Lifeboat winches for use with nested lifeboats shall be provided with suitable means for rapidly retrieving the falls by handpower unless separate falls are provided for each lifeboat.

Subpart 75.33—Blocks and Falls for Lifeboats

24. The heading for Subpart 75.33 is amended to read "Blocks and Falls for Lifeboats," as set forth above.

25. Section 75.33–1(a) is amended to read as follows:

§ 75.33–1 Application.

(a) The provisions of this subpart, with the exception of § 75.33–90, shall apply to all vessels contracted for on or after May 26, 1965. Vessels contracted for prior to May 26, 1965, shall meet the requirements of § 75.33–90.

26. Section 75.33–5(b) is amended to read as follows:

§ 75.33–5 General.

* * * * *

(b) Falls shall be of such length that the lifeboat may be lowered to the water with the vessel at its lightest draft listed 15 degrees either way.

27. Section 75.33–10 is amended by canceling paragraph (d) and by redesignating paragraphs (e) and (f) to (d) and (e), respectively, so these paragraphs read as follows:

§ 75.33–10 Installations where lifeboat winches are used.

* * * * *

(d) The lead sheaves to the drum shall be located so as to provide fleet angles of not more than 8 degrees for grooved drums and not more than 4 degrees for nongrooved drums. By fleet angle is meant the angle included between the wire rope from the lead sheave to the drum (or drum extended) when it is perpendicular to the axis of the drum, and the wire rope from the lead sheave to either extremity of the drum.

(e) Sheaves shall have a diameter at the base of the groove at least equal to 12 times the diameter of the wire rope.

28. Section 75.33–15 is amended by canceling paragraph (c) and by redesignating paragraph (d) as (c) so this paragraph reads as follows:

§ 75.33–15 Installations where lifeboat winches are not used.

* * * * *

(c) There shall be ample clearance between the cheeks of all blocks. The width between the cheeks shall be one-half inch greater than the diameter of new rope when rope of 3¾-inch circumference or greater is used. Blocks for smaller rope shall be designed with proportional clearances.

29. Section 75.33–90 is amended to read as follows:

§ 75.33–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 75.33–5 through 75.33–15, as applicable, shall be complied with insofar as the general type of equipment is concerned. Existing equipment previously approved, but not meeting the detailed requirements of §§ 75.33–5 through 75.33–15 may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs, alterations, and replacements may be made to the same standards as the original installation. However, all new installations or major replacements shall meet the applicable requirements in this subpart.

(2) When nested lifeboats are used, the lower blocks shall be of the nontoppling type unless separate falls are provided for each lifeboat. Separate falls shall be provided for each lifeboat in all nested lifeboat installations not using wire falls.

Subpart 75.35—Installation of Lifeboats, Davits, and Winches

30. Section 75.35–5 is amended by revising subparagraphs (b)(3) and (b)(4) to read as follows:

§ 75.35–5 Tests and examinations.

* * * * *

(b) * * *

(3) The falls shall be of sufficient length to lower the lifeboat as required by § 75.33–5(b).

(4) Where lifeboat winches are used, the following additional determinations shall be made:

(i) During lowering, the lifeboat shall be stopped at intervals of approximately 6 feet by the action of the counterweight alone. The counterweight shall be capable of stopping and holding the lifeboat. The brake action shall be smooth, but positive.

(ii) Brakes exposed to the weather shall be tested under the load conditions with the braking surfaces both wet and dry.

(iii) The governor brake shall be capable of controlling the speed of lowering of the fully equipped lifeboat with its complement of persons on board to not more than 120 feet per minute. In addition, the speed of lowering of the fully equipped lifeboat without its complement of persons shall be not less than 40 feet per minute. However, emergency lifeboats shall have a minimum lowering speed of 60 feet per minute in the fully equipped condition without persons aboard and a maximum lowering speed of 160 feet per minute in the fully equipped condition with the full complement of persons aboard.

(iv) Emergency lifeboat winches required to meet the provisions of § 75.30–10(d) shall be capable of recovering the emergency lifeboats in the fully equipped condition with the full complement of persons aboard at a hoisting speed of not less than 20 feet per minute.

(v) If nested lifeboats are used, the hand-operated quick-return mechanism shall be tested. The action shall be easy enough for one man to recover the falls.

31. Part 75 is amended by inserting after § 75.35–5 a new Subpart 75.37, consisting of §§ 75.37–1 and 75.37–5, reading as follows:

Subpart 75.37—Installation of Inflatable Liferaft Launching Devices

§ 75.37–1 Application.

(a) The provisions of this subpart shall be applicable to all installations contracted for on or after May 26, 1965, except as specifically noted.

§ 75.37–5 Tests and examinations.

(a) Upon completion of the installation of liferaft launching devices, tests and examinations as required by this section shall be made to the satisfaction of the marine inspector before the vessel may be navigated.

(b) A fully equipped liferaft shall be inflated at its embarkation position. It shall then be loaded with deadweight equivalent to the number of persons allowed (165 pounds per person), plus 10 percent of the total load, which shall include the weight of the fully equipped raft. The liferaft shall then be lowered to the water and disengaged from the falls. Necessary safety precautions shall be taken for persons engaged in the loading of the liferaft. No person shall be allowed in the liferaft while it is being lowered. The following determinations shall be made:

(1) None of the equipment or parts thereof nor deck connections shall show signs of permanent set or excessive deflection.

(2) Arrangements at the embarkation deck shall be such that persons may be rapidly and safely loaded into the liferaft.

(3) The fully loaded liferaft shall be capable of being swung out from the embarkation deck and lowered without lifting.

(4) The falls shall be of sufficient length to lower the liferaft to the light load line with the vessel heeled 15 degrees inboard and with a 10-degree trim.

(5) During lowering, the liferaft shall be stopped at intervals of approximately 6 feet by the action of the counterweight alone. The counterweight shall be capable of stopping and holding the liferaft. The brake action shall be smooth, but positive.

(6) Brakes exposed to the weather shall be tested under the load conditions with the braking surfaces both wet and dry.

(7) The governor brake shall be capable of controlling the speed of lowering the fully equipped liferaft with its complement of persons on board to not more than 120 feet per minute. In addition, the speed of lowering of the fully equipped liferaft without its complement of persons shall be not less than 40 feet per minute.

(8) The hand-operated quick-return mechanism shall be tested. The action shall be easy enough for one man to recover the falls.

(c) Other methods of testing liferaft launching devices to demonstrate compliance with paragraph (b) of this section, which do not involve the launching of a fully loaded raft may be authorized, if in the opinion of the Commandant, such alternate tests adequately demonstrate compliance with the requirements.

Subpart 75.40—Life Preservers

§ 75.40–1 [Amended]

32. Section 75.40–1 *Application* is amended in paragraphs (a) and (b) by changing the date "January 1, 1962," to "May 26, 1965."

33. Section 75.40–5 is amended to read as follows:

§ 75.40–5 General.

(a) All life preservers shall be of an approved type, constructed in accordance with Subparts 160.002, 160.005, or 160.055 of Subchapter Q (Specifications) of this chapter.

(b) All life preservers on vessels on an international voyage shall be provided with a whistle of the ball-type of corrosion-resistant construction, with a 3-foot lanyard attached, and in good working order. It shall be attached to the life preserver by the lanyard alone without hooks, snaps, clips, etc., and shall extend not less than 15 inches from the life preserver body. While stowed on the life preserver, the whistle lanyard shall be coiled and stopped-off.

34. Section 75.40–10 is amended by adding a new paragraph (b) reading as follows:

§ 75.40–10 Number and type required.

* * * * *

(b) In addition to the life preservers required by paragraph (a) of this section, all vessels on an international voyage shall be provided with approved type life preservers for 5 percent of the persons carried.

34a. Section 75.40–15 is amended by adding a new paragraph (b) reading as follows:

§ 75.40–15 Distribution.

* * * * *

(b) The additional life preservers required by § 75.40–10(b) shall be stowed in conspicuous places on deck.

35. Section 75.40–90 is amended to read as follows:

§ 75.40–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 75.40–5 through 75.40–25 shall be complied with insofar as the number of items of equipment and the method of stowage and notice is concerned. Existing items of equipment previously approved, but not meeting the applicable specifications or requirements set forth in §§ 75.40–5 through 75.40–25 may be continued in service so long as they are serviceable and in good condition to the satisfaction of the Officer in Charge, Marine Inspection, except that:

(i) All kapok and fibrous glass life preservers which do not have plastic-covered pad inserts, as required by Subparts 160.002 and 160.005 of Subchapter Q (Specifications) of this chapter, shall be removed from service.

(2) Where prior to November 19, 1952, wood floats were substituted for approved type adult life preservers, such wood floats may be continued in service so long as they are serviceable and in good condition to the satisfaction of the Officer in Charge, Marine Inspection, on steam vessels in river service, barges carrying passengers while in tow of a steam vessel in other than ocean or coastwise service, and river ferryboats propelled by steam. Where permitted, wood floats shall be stowed in the most accessible spaces.

(3) All new installations or replacements shall meet the applicable specifications or requirements, except that:

(i) Cork and balsa wood life preservers, constructed in accordance with the applicable provisions of Subpart 160.003 or 160.004 and manufactured as approved life preservers prior to July 1, 1965, may be accepted as new or replacement equipment required by this subchapter if such life preservers are serviceable and in good condition to the satisfaction of the Officer in Charge, Marine Inspection: *Provided, however,* That such life preservers bearing basic Approval No. 160.003 or 160.004 shall not be considered as approved equipment meeting the requirements for those passenger ships on an international voyage, constructed or contracted for on or after May 26, 1965.

Subpart 75.43—Ring Life Buoys and Water Lights

§ 75.43–1 [Amended]

36. Section 75.43–1 *Application* is amended by changing in the first and second sentences of paragraph (a) the date from "November 19, 1952," to "May 26, 1965."

37. Section 75.43–5 is amended by adding a new paragraph (c) reading as follows:

§ 75.43–5 General.

* * * * *

(c) All self-activating smoke signals shall be of an approved type, constructed in accordance with the requirements of Subpart 160.057 of Subchapter Q (Specifications) of this chapter which shall be capable of producing smoke of a highly visible color for at least 15 minutes.

38. Section 75.43–10 is amended by revising paragraph (b) and by adding paragraphs (c) and (d), which read as follows:

§ 75.43–10 Number required.

* * * * *

(b) One of the ring life buoys on each side of the vessel shall have secured to it a line at least 15 fathoms in length. On vessels on an international voyage, the line shall be of a buoyant type.

(c) On vessels on an international voyage, at least two of the ring life buoys with water lights attached as required by Table 75.43–10(a) shall also be provided with an approved self-activated smoke signal and shall be capable of quick release from the navigating bridge.

(d) On vessels on an international voyage, the ring life buoys required by this section shall be orange in color.

39. Section 75.43–90 is amended to read as follows:

§ 75.43–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 75.43–5 through 75.43–15 shall be complied with insofar as the number of items of equipment and the method of stowage is concerned. Existing items of equipment previously approved, but not meeting the applicable specifications or requirements set forth in §§ 75.43–5 through 75.43–15 may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. All new installations or replacements shall meet the applicable specifications or requirements in this subpart.

Subpart 75.50—Embarkation Aids

40. Section 75.50–1 is amended to read as follows:

§ 75.50–1 Application.

(a) The provisions of this subpart, with the exception of § 75.50–90, shall apply to all vessels contracted for on or after May 26, 1965. Vessels contracted for prior to May 26, 1965, shall meet the requirements of § 75.50–90.

41. Section 75.50–5(a)(3) is amended to read as follows:

§ 75.50–5 Ladders.

(a) * * *

(3) All vessels certificated for ocean or coastwise service, which normally employ a pilot shall have a ladder for the use of the pilot, in addition to the ladders required by subparagraph (2) of this paragraph. Suitable spreaders, a man rope, and a safety line shall be kept readily available for use in conjunction with the pilot ladder whenever circumstances may so require. When used, the ladder shall be secured in a position so that each step rests firmly against the ship's side, and so the pilot can gain safe and convenient access to the ship after climbing not more than 30 feet. Whenever the distance from sea level is more than 30 feet, access from the pilot ladder to the ship shall be by means of an accommodation ladder or other equally safe and convenient means. Arrangements shall be such that the rigging of the ladder and the embarkation of the pilot is supervised by a responsible officer of the ship and handholds are provided to assist the pilot

to pass safely and conveniently from the head of the ladder into the ship or onto the ship's deck. At night a light shining over the side shall be available for use, and the deck at the position where the pilot boards the ship shall be adequately lighted.

42. Subpart 75.50 is amended by inserting after § 75.50–10 a new § 75.50–15 reading as follows:

§ 75.50–15 Illumination for inflatable liferaft launching operations.

(a) On all vessels on an international voyage there shall be provided for any liferafts for which approved launching devices are carried, means for illuminating the liferafts and their launching gear during the preparation for and during the process of launching, and also for illuminating the water into which the liferafts are launched. In addition, there shall be provided means of illuminating the stowage position of liferafts for which approved launching devices are not carried. Details of the illuminating system shall be in accordance with applicable requirements in Subchapter J (Electrical Engineering) of this chapter.

43. Section 75.50–90 is amended to read as follows:

§ 75.50–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 75.50–5 through 75.50–15 shall be complied with insofar as the number of items of equipment and the method of stowage is concerned. Existing items of equipment previously approved, but not meeting the applicable specifications or requirements of §§ 75.50–5 through 75.50–15 may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. All new installations or replacements shall meet the applicable specifications or requirements in this subpart.

Subpart 75.55—Portable Radio Apparatus

44. Section 75.55–1(a) is amended to read as follows:

§ 75.55–1 Required on international voyage.

(a) Any vessel on an international voyage shall be provided with a portable radio apparatus complying with the requirements of the Federal Communications Commission, unless at least one lifeboat on each side of the vessel is fitted with a fixed radio installation. The apparatus shall be so designed that it may be used by an unskilled person. Such apparatus shall be kept in the radioroom, chartroom, or other suitable location ready to be moved to one or other of the lifeboats in the event of an emergency. See also § 75.10–10(a)(4).

PART 76—FIRE PROTECTION EQUIPMENT

1. The authority for Part 76 is amended to read as follows:

AUTHORITY: The provisions of this Part 76 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4417, as amended, 4418, as amended, 4426, as amended, 4488, as amended, 4491, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended; sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 392, 404, 481, 489, 395, 369, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 76.05—Fire Detecting and Extinguishing Equipment, Where Required

2. Section 76.05–1(a) is amended by revising Table 76.05–1(a) to read as follows:

§ 76.05–1 Fire detecting systems.

(a) * * *

TABLE 76.05–1(a)

Space	Detecting systems	Fixed extinguishing systems
Safety areas		
Wheelhouse or fire-control room	None required [1]	None required.[1]
Stairway and elevator enclosures	do.[1]	Do.[1]
Communication corridors	do.[1]	Do.[1]
Lifeboat embarkation and lowering stations	do	Do.
Radio room	do.[1]	Do.[1]
Accommodations		
Staterooms, toilet spaces, isolated pantries, etc.	do.[1]	Do.[1]
Offices, lockers, and isolated storerooms	Electric, pneumatic, or automatic sprinkling.[1]	Do.[1]
Public spaces	None required with 20-minute patrol. Electric, pneumatic, or automatic sprinkling with 1 hour patrol.[1]	Do.[1]
Open decks or enclosed promenades	None required	Do.
Service spaces		
Galleys	do.[1]	Do.[1]
Main pantries	do.[1]	Do.[1]
Motion picture booths and film lockers	Electric, pneumatic, or automatic sprinkling.[1] [2]	Do.[1] [2]
Paint and lamp rooms	Smoke detecting [3]	Carbon dioxide.[4]
Inaccessible baggage, mail, and specie rooms and storerooms.	do	Do.
Accessible baggage, mail, and specie rooms and storerooms.	Electric, pneumatic, or automatic sprinkling.	None required.[1]
Refrigerated storerooms	None required	Do.
Carpenter, valet, photographic, and printing shops, sales rooms, etc.	Electric, pneumatic, or automatic sprinkling.	Do.[1]
Machinery spaces		
Coal fired boilers: Bunker and boiler space	None required	None required.
Oil fired boilers: Spaces containing oil fired boilers either main or auxiliary, their fuel oil service pumps, and/or such other fuel oil units as the heaters, strainers, valves, manifolds, etc., that are subject to the discharge pressure of the fuel oil service pumps, together with adjacent spaces to which oil can drain.	do	Carbon dioxide or foam.[5]
Internal combustion or gas turbine propelling machinery spaces.	do	Carbon dioxide.[6]
Electric propulsive motors or generators of open type	do	None required.
Enclosed ventilating systems for motors and generators of electric propelling machinery.	do	Carbon dioxide (in ventilating system).[7]
Auxiliary spaces, internal combustion or gas turbine	do	Carbon dioxide.[8]
Auxiliary spaces, electric motors or generators	do	None required.
Auxiliary spaces, steam	do	Do.
Trunks to machinery spaces	do	Do.
Fuel tanks	do	Do.[9]
Cargo spaces		
Inaccessible during voyage (combustible cargo), including trunks (excluding tanks).	Smoke detecting	Carbon dioxide.[4]
Accessible during voyage (combustible cargo)	Smoke detecting, electric, pneumatic or automatic sprinkling.	Automatic or manual sprinkling.
Vehicular deck (except where no overhead deck is 30 feet in length or less).	None required	Manual sprinkling.
Cargo oil tanks	do	Carbon dioxide or foam.[4]

[1] Vessels of 100 gross tons and over contracted for on or before May 27, 1936, and having combustible joiner work shall be fitted with an automatic sprinkling system, except in relatively incombustible spaces.

[2] Sprinkler heads may be attached to sanitary system provided electrical or pneumatic detecting is installed.

[3] On vessels contracted for prior to November 19, 1952, electric or pneumatic detecting may be substituted.

[4] On vessels contracted for prior to January 1, 1962, a steam smothering system may be accepted. However, although existing steam smothering systems may be repaired, replaced, or extended, no new system contracted for on or after January 1, 1962, will be permitted.

[5] Protection of auxiliary boilers, fuel oil units, valves and manifolds not required on vessels contracted for prior to November 19, 1952.

[6] Not required on vessels of less than 300 gross tons (except on an international voyage) using fuel with a flashpoint higher than 110° F., where the space is normally manned.

[7] Not required on vessels contracted for prior to November 19, 1952.

[8] Not required on vessels of less than 300 gross tons nor on vessels contracted for prior to November 19, 1952, except where fuel, including starting fuel, has a flashpoint of 110° F. or less.

[9] Where fuel having a flashpoint of 110° F. or lower is used, the space containing the fuel tanks shall be protected by a carbon dioxide system.

3. Section 76.05–30 is amended by adding a new paragraph (b) reading as follows:

§ 76.05–30 Sand.

* * * * *

(b) In lieu of the requirements in paragraph (a) of this section, one B–II fire extinguisher may be substituted.

Subpart 76.10—Fire Main System, Details

4. Section 76.10–1(a) is amended to read as follows:

§ 76.10–1 Application.

(a) The provisions of this subpart, with the exception of § 76.10–90, shall apply to all fire main installations contracted for on or after May 26, 1965. Installations contracted for prior to May 26, 1965, shall meet the requirements of § 76.10–90.

5. Section 76.10–5(b) is amended to read as follows:

§ 76.10–5 Fire pumps.

* * * * *

(b) Vessels on an international voyage shall have a minimum total fire pump capacity at least equal to two-thirds of the required total bilge pump capacity, but in no case less than that required by this section. Each of the required fire pumps shall have a capacity not less than 80 percent of the total required capacity divided by the number of required pumps.

6. Section 76.10–10(c) is amended to read as follows:

§ 76.10–10 Fire hydrants and hose.

* * * * *

(c) On vessels of 1,000 gross tons and over there shall be at least one shore connection to the fire main available to each side of the vessel in an accessible location. Suitable cut-out valves and check valves shall be provided. Suitable adaptors also shall be provided for furnishing the vessel's shore connections with couplings mating those on the shore fire lines. Such vessels on an international voyage, shall be provided with at least one international shore connection. Facilities shall be available enabling such a connection to be used on either side of the vessel. The international shore connection shall be in accordance with specification Subpart 162.034 of Subchapter Q (Specifications) of this chapter.

7. Section 76.10–15 is amended by adding a new paragraph (c) reading as follows:

§ 76.10–15 Piping.

* * * * *

(c) For vessels on an international voyage, the diameter of the fire main shall be sufficient for the effective distribution of the maximum required discharge from two fire pumps operating simultaneously. This is in addition to § 76.10–5(c). The discharge of this quantity of water through hoses and nozzles at a sufficient number of adjacent hydrants shall be at a minimum Pitot tube pressure of approximately 50 pounds per square inch.

8. Section 76.10–90 is amended to read as follows:

§ 76.10–90 Installations contracted for prior to May 26, 1965.

(a) Installations contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 76.10–5 through 76.10–15 shall be complied with insofar as the number and general type of equipment is concerned. Existing equipment previously approved, but not meeting the applicable requirements of §§ 76.10–5 through 76.10–15 may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs, alterations, and replacements may be permitted to the same standards as the original installation. However, all new installations or major replacements shall meet the applicable requirements in this part.

(2) All vessels contracted for prior to November 19, 1952, shall be fitted with fire pumps, hoses, and nozzles in accordance with Table 76.10–90(a)(2).

TABLE 76.10-90(a)(2)

Gross tons		Minimum number of pumps	Minimum hose and hydrant size, inches	Nozzle orifice size, inches	Length of hose, feet
Over	Not over				
100	4,000	2	[1] 1½	[1] ⅝	[1] 50
4,000	----------	3	[1] 1½	[1] ¾	[1] 50

[1] May use 50 feet of 2½-inch hose with 1⅛-inch nozzles for exterior stations. May use 75 feet of 1½-inch hose with ⅝-inch nozzles for interior station in which case such interior stations shall have siamese connections.

(3) When reasonable and practicable, where two or more fire pumps are required, they shall not all be located in the same space.

(4) The general requirements of §§ 76.10–5 (c) through (h), 76.10–10 (d) through (i), and § 76.10–15 shall be complied with insofar as is reasonable and practicable.

Subpart 76.13—Steam Smothering System, Details

8a. Section 76.13–1 is amended by adding a new paragraph (c) reading as follows:

§ 76.13–1 Application.

* * * * *

(c) This does not preclude the introduction of steam into such confined spaces as boiler casings or into tanks for steaming out purposes. Such installations are not to be considered as part of any required fire extinguishing system.

Subpart 76.15—Carbon Dioxide Extinguishing Systems, Details

9. Section 76.15–5(e) is amended to read as follows:

§ 76.15–5 Quantity, pipe sizes, and discharge rate.

* * * * *

(e) *Machinery spaces, paint lockers, tanks, and similar spaces.* (1) Except as provided in subparagraph (3) of this paragraph, the number of pounds of carbon dioxide required for each space shall be equal to the gross volume of the space divided by the appropriate factor noted in Table 76.15–5(e)(1). If fuel can drain from the compartment being protected to an adjacent compartment, or if the compartments are not entirely separate, the requirements for both compartments shall be used to determine the amount of carbon dioxide to be provided. The carbon dioxide shall be arranged to discharge into both such compartments simultaneously.

TABLE 76.15-5(e)(1)

Gross volume of compartment, cubic feet		Factor
Over	Not over	
----------	500	15
500	1,600	16
1,600	4,500	18
4,600	50,000	20
50,000	----------	22

(2) For the purpose of the above requirement of this paragraph, the volume of a machinery space shall be taken as exclusive of the normal machinery casing unless the boiler, internal combustion machinery, or fuel oil installations extend into such space in which case the volume shall be taken to the top of the casing or the next material reduction in casing area, whichever is lower. For installations contracted for on or after October 1, 1959, "normal machinery casing" and "material reduction in casing area" shall be defined as follows:

(i) By "normal machinery casing" shall be meant a casing the area of which is not more than 40 percent of the maximum area of the machinery space.

(ii) By "material reduction in casing area" shall be meant a reduction to at least 40 percent of the casing area.

(3) For vessels on an international voyage contracted for on or after May 26, 1965, the amount of carbon dioxide required for a space containing propulsion boilers or internal combustion propulsion machinery shall be as given by subparagraphs (1) and (2) of this paragraph or by dividing the entire volume, including the casing, by a factor of 25, whichever is the larger.

(4) Branch lines to the various spaces shall be as noted in Table 76.15–5(e)(4).

TABLE 76.15-5(e)(4)

Maximum quantity of carbon dioxide required, pounds	Minimum nominal pipe size, inches	Maximum quantity of carbon dioxide required, pounds	Minimum nominal pipe size, inches
100	1	2,500	2½
225	¼	4,450	3
300	1	7,100	3½
600	1¼	10,450	4
1,000	1½	15,000	4½
2,450	2		

(5) Distribution piping within the space shall be proportioned from the supply line to give proper distribution to the outlets without throttling.

(6) The number, type, and location of discharge outlets shall be such as to give a uniform distribution throughout the space.

(7) The total area of all discharge outlets shall not exceed 85 percent nor be less than 35 percent of the nominal cylinder outlet area or the area of the supply pipe, whichever is smaller. The nominal cylinder outlet area in square inches shall be determined by multiplying the factor 0.0022 by the number of pounds of carbon dioxide required, except that in no case shall this outlet area be less than 0.110 square inch.

(8) The discharge of at least 85 percent of the required amount of carbon dioxide shall be complete within 2 minutes.

Subpart 76.20—Water Spray Extinguishing System, Details [Canceled]

10. Subpart 76.20, consisting of §§ 76.20–1 to 76.20–90, inclusive, is canceled.

Subpart 76.25—Automatic Sprinkling System, Details

10a. Section 76.25–35(c) is amended to read as follows:

§ 76.25–35 Operation and installation.

* * * * *

(c) There shall be not less than two sources of power supply for the sea water pumps, air compressors and automatic alarms. Where the sources of power are electrical, these shall be a main generator and an emergency source of power. One supply shall be taken from the main switchboard, by separate feeders reserved solely for that purpose. Such feeders shall be run to a change-over switch situated near to the sprinkler unit and the switch shall normally be kept closed to the feeder from the emergency switchboard. The change-over switch shall be clearly labeled and no other switch shall be permitted in these feeders.

Subpart 76.50—Hand Portable Fire Extinguishers and Semiportable Fire Extinguishing Systems, Arrangements, and Details

11. Section 76.50–10 is amended by canceling paragraph (e) and by redesignating paragraph (f) as paragraph (e), reading as follows:

§ 76.50–10 Location.

* * * * *

(e) Hand portable or semiportable extinguishers, which are required on their name plates to be protected from freezing, shall not be located where freezing temperatures may be expected.

PART 77—VESSEL CONTROL AND MISCELLANEOUS SYSTEMS AND EQUIPMENT

1. The authority for Part 77 is amended to read as follows:

AUTHORITY: The provisions of this Part 77 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4417, as amended, 4418, as amended, 4426, as amended, 4488, as amended, 4491, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 392, 404, 481, 489, 395, 363, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 21, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857. Additional authority cited with sections affected.

Subpart 77.30—Emergency Equipment

2. Section 77.30–1(a) is amended to read as follows:

§ 77.30–1 Application.

(a) The provisions of this subpart, with the exception of § 77.30–90, shall apply to all vessels not on an international voyage contracted for on or after November 19, 1952. Such vessels contracted for prior to November 19, 1952, shall meet the requirements of § 77.30–90.

* * * * *

3. Section 77.30–10(a) is amended by revising Table 77.30–10(a) to read as follows:

§ 77.30–10 Stowage.

(a) * * *

TABLE 77.30–10(a)

Service	Number of passenger staterooms	Self-contained breathing apparatus	Additional gas masks or self-contained breathing apparatus	Special refrigeration gas masks[1]	Flame safety lamps
Ocean and coastwise, not on an international voyage.	0 to 49			1	
	50 to 100	1	3	1	
	Over 100	1	5	1	1
Great Lakes, and lakes, bays, and sounds.	0 to 49			1	
	50 to 100	1	1	1	
	Over 100	1	3	1	1
Rivers	0 to 49			1	
	50 to 100	1		1	
	Over 100	1	1	1	1

[1] Required only on vessels equipped with refrigeration, small unit type refrigerators of not more than 20 cubic feet capacity excluded. A gas mask suitable for protection against each refrigerant used shall be provided.

Subpart 77.35—Fireman's Outfit

4. Part 77 is amended by adding after § 77.30–90 a new Subpart 77.35, entitled "Fireman's Outfit," consisting of §§ 77.35–1 to 77.35–90, inclusive, reading as follows:

Sec.
77.35–1 Application.
77.35–5 General.
77.35–10 Fireman's outfit.
77.35–15 Stowage.
77.35–20 Spare charges.
77.35–90 Vessels contracted for prior to May 26, 1965.

§ 77.35–1 Application.

(a) The provisions of this subpart, with the exception of § 77.35–90, shall apply to all vessels on an international voyage contracted for on or after May 26, 1965. Such vessels contracted for prior to May 26, 1965, shall meet the requirements of § 77.35–90.

§ 77.35–5 General.

(a) All flame safety lamps shall be of an approved type, constructed in accordance with Subpart 160.016 of Subchapter Q (Specifications) of this chapter.

(b) All self-contained breathing apparatus shall be of an approved type, constructed in accordance with Subpart 160.011 of Subchapter Q (Specifications) of this chapter.

(c) All flashlights shall be of an approved 3-cell explosion-proof type, constructed in accordance with Subpart 161.008 of Subchapter Q (Specifications) of this chapter.

(d) All lifelines shall be of steel or bronze wire rope. Steel wire rope shall be either inherently corrosion resistant, or made so by galvanizing or tinning. Each end shall be fitted with a hook with keeper having throat opening which can be readily slipped over a ⅝-inch bolt. The total length of the lifeline shall be dependent upon the size and arrangement of the vessel, and more than one line may be hooked together to achieve the necessary length. No individual length of lifeline may be less than 50 feet in length. The assembled lifeline shall have a minimum breaking strength of 1,500 pounds.

(e) All equipment shall be maintained in an operative condition, and it shall be the responsibility of the master and chief engineer to ascertain that a sufficient number of the crew are familiar with the operation of the equipment.

§ 77.35–10 Fireman's outfit.

(a) A fireman's outfit shall consist of one self-contained breathing apparatus with lifeline attached, one flashlight, one flame safety lamp, and one fire ax.

(b) The number of fireman's outfits required are as set forth in Table 77.35–10(b).

TABLE 77.35–10(b)

Gross tonnage		Minimum number of fireman's outfits
Over—	Not over—	
	10,000	2
10,000	20,000	3
20,000		4

§ 77.35–15 Stowage.

(a) The fireman's outfit, together with such other items of equipment as the master may deem necessary, shall be stowed in convenient, accessible locations for use in case of emergency. One outfit shall be stowed in or near the pilothouse. Where additional outfits are required by Table 77.35–10(b), one of the additional outfits shall be stowed preferably adjacent to the main entrance to the machinery space. Other additional outfits shall be stowed in convenient accessible locations remote from the pilothouse.

§ 77.35–20 Spare charges.

(a) A complete recharge shall be carried for each self-contained breathing apparatus, and a complete set of spare batteries shall be carried for each flashlight. The spares shall be stowed in the same location as the equipment it is to reactivate.

§ 77.35–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) The requirements of §§ 77.35–5 through 77.35–20 shall be complied with insofar as the number of items of equipment and the method of stowage of the equipment is concerned. Existing items of equipment previously approved, but not meeting the applicable specifications set forth in § 77.35–5, may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection, but all new installations or replacements shall meet the applicable specifications or requirements.

PART 78—OPERATIONS

1. The authority for Part 78 is amended to read as follows:

AUTHORITY: The provisions of this Part 78 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4417, as amended, 4418, as amended, 4426, as amended, 4453, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 392, 404, 435, 395, 363, 367, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, CGFR 56–28, July 24, 1956, 21 F.R. 5659. Additional authority cited with sections affected.

Subpart 78.13—Station Bills

2. Section 78.13–10(b) is amended to read as follows:

§ 78.13–10 Emergency signals.

* * * * * * *

(b) *Fire alarm stations.* (1) The fire alarm signal shall be a continuous blast of the whistle for a period of not less than 10 seconds supplemented by the continuous ringing of the general alarm bells for not less than 10 seconds.

(2) For dismissal from fire alarm stations, the general alarm shall be sounded three times supplemented by three short blasts of the whistle.

Subpart 78.17—Tests, Drills, and Inspections

3. Section 78.17–50 is amended by revising paragraphs (a) and (b) (8) to read as follows:

§ 78.17–50 Fire and boat drills.

(a) The master shall be responsible for conducting a fire and boat drill at least once in every week. In the case of a vessel where the duration of the voyage exceeds 1 week, a fire and boat drill shall be held before the vessel leaves port and at least once a week thereafter. On all vessels on an international voyage other than a short international voyage, a muster of the passengers for fire and boat drill shall be held within 24 hours after leaving port.

* * * * * * *

(b) * * *

(8) The person in charge of each lifeboat and liferaft shall have a list of its crew and shall see that the men under his command are acquainted with their duties.

Subpart 78.47—Markings for Fire and Emergency Equipment, Etc.

4. Section 78.47–60(a) is amended to read as follows:

§ 78.47–60 Lifeboats.

(a) The name of the vessel shall be plainly marked or painted on each side of the bow of each lifeboat in letters not less than 3 inches high. For vessels on an international voyage, the vessel's port of registry shall be added in similar type letters.

5. Section 78.47–63(a) is amended to read as follows:

§ 78.47–63 Liferafts, lifefloats, and buoyant apparatus.

(a) Rigid type liferafts, lifefloats, and buoyant apparatus, together with their oars and paddles, shall be conspicuously marked with the vessel's name. For vessels on an international voyage, the vessel's port of registry also shall be similarly marked on lifefloats and buoyant apparatus.

6. Section 78.47–65(a) is amended to read as follows:

§ 78.47–65 Life preservers, wood floats, and ring life buoys.

(a) All life preservers, wood floats, and ring life buoys shall be marked with the vessel's name. For vessels on an international voyage, the vessel's port of registry shall be added in similar type letters on all ring life buoys.

6a. Part 78 is amended by inserting after § 78.47–90 a new Subpart 78.49, consisting of § 78.49–1, reading as follows:

Subpart 78.49—Posting Placards of Instructions for Launching and Inflating Inflatable Liferafts

§ 78.49–1 When required.

(a) Every vessel equipped with inflatable liferafts shall have posted in conspicuous places which are regularly accessible to the crew and/or passengers, approved placards containing instructions for launching and inflating inflatable liferafts for the information of persons on board. The number and location of such placards shall be as determined necessary by the Officer in Charge, Marine Inspection.

(b) Under the requirements contained in § 160.051–6(c)(1) of Subpart 160.051 in Subchapter Q (Specifications) of this chapter, the manufacturer of approved inflatable liferafts is required to provide approved placards containing such instructions with each liferaft.

Subpart 78.53—Placard of Lifesaving Signals and Breeches Buoy Instructions

7. The title for Subpart 78.53 is amended to read "Placard of Lifesaving Signals and Breeches Buoy Instructions," as set forth above.

8. Section 78.53–1(a) is amended to read as follows:

§ 78.53–1 Application.

(a) The provisions of this subpart shall apply to all vessels on an international voyage, and to all other vessels of 150 gross tons or over in ocean, coastwise or Great Lakes service.

9. Section 78.53–5 is amended to read as follows:

§ 78.53–5 Availability.

(a) On all vessels to which this subpart applies there shall be posted in the pilothouse and readily available to the deck officer of the watch a placard (Form CG–811) containing instructions for the use of breeches buoys and the lifesaving signals as set forth in Regulation 16, Chapter V, of the International Convention for Safety of Life at Sea, 1960. These signals shall be used by vessels or persons in distress when communicating with lifesaving stations and maritime rescue units.

(b) A copy of Form CG–811 shall also be conveniently posted in the engineroom and crews quarters of all vessels to which this subpart applies.

SUBCHAPTER I—CARGO AND MISCELLANEOUS VESSELS

PART 90—GENERAL PROVISIONS

1. The authority for Part 90 is amended to read as follows:

AUTHORITY: The provisions of this Part 90 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4426, as amended, 4427, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 404, 405, 366, 395, 363, 367, 526p, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; CGFR 56–28, July 24, 1956, 21 F.R. 5659. Additional authority cited with sections affected.

Subpart 90.05—Application

§ 90.05–1 [Amended]

2. Section 90.05–1 *Vessels subject to requirements of this subchapter* is amended by revising in paragraph (a) (1) and in footnote 6 in Table 90.05–1(a) the title from "International Convention for the Safety of Life at Sea, 1948," to "International Convention for Safety of Life at Sea, 1960."

3. Section 90.05–10 is amended to read as follows:

§ 90.05–10 Application to vessels on an international voyage.

(a) Where, in various places or portions of this subchapter, requirements are stipulated specifically for "vessels on an international voyage," it is intended that these requirements apply only to vessels subject to the International Convention for Safety of Life at Sea, 1960, which are mechanically propelled vessels of 500 gross tons and over on an international voyage, as defined in § 90.10–17, other than yachts and fishing vessels.

(b) In accordance with Regulation 4, Chapter I (General Provisions) of the International Convention for Safety of

Life at Sea, 1960, a vessel which is not normally engaged on an international voyage, but which in exceptional circumstances, is required to undertake a single international voyage may be exempted by the Commandant from any of the requirements of the Regulations of the Convention: *Provided*, That it complies with safety requirements which are adequate, in his opinion, for the voyage which is to be undertaken.

(c) In accordance with Regulation 1(c), Chapter II (Construction) of the International Convention for Safety of Life at Sea, 1960, the Commandant may, if he considers that the sheltered nature and conditions of the voyage are such as to render the application of any specific requirements of Chapter II of this Convention unreasonable or unnecessary; exempt from those requirements individual vessels or classes of vessels which, in the course of their voyage, do not proceed more than 20 miles from the nearest land.

(d) In accordance with Regulation 3 (a), Chapter III (Lifesaving Appliances, Etc.) of the International Convention for Safety of Life at Sea, 1960, the Commandant, if he considers that the sheltered nature and conditions of the voyage are such as to render the application of the full requirements of Chapter III of this Convention unreasonable or unnecessary, may to that extent exempt from the requirements of Chapter III individual vessels or classes of vessels which, in the course of their voyage, do not go more than 20 miles from the nearest land.

Subpart 90.10—Definition of Terms Used in This Subchapter

4. Section 90.10–17 is amended to read as follows:

§ 90.10–17 International voyage.

(a) The term "international voyage" as used in this subchapter shall have the same meaning as that contained in Regulation 2(d), Chapter I of the International Convention for Safety of Life at Sea, 1960, i.e., " 'International voyage' means a voyage from a country to which the present Convention applies to a port outside such country, or conversely; and for this purpose every territory for the international relations of which a Contracting Government is responsible or for which the United Nations are the administering authority is regarded as a separate country."

(b) The International Convention for Safety of Life at Sea, 1960, does not apply to vessels "solely navigating the Great Lakes of North America and the River St. Lawrence as far east as a straight line drawn from Cap de Rosiers to West Point, Anticosti Island and, on the north side of Anticosti Island, the 63d Meridian." Accordingly, such vessels shall not be considered as being on an "international voyage" for the purpose of this subchapter.

(c) For the purposes of this subchapter the term "territory" as used in paragraph (a) of this section shall be considered to include the Commonwealth of Puerto Rico, the Canal Zone, all possessions of the United States, and all lands held by the United States under a protectorate or mandate.

(d) In addition, although voyages between the continental United States and Hawaii or Alaska, and voyages between Hawaii and Alaska are not "international voyages" under the provisions of the International Convention for Safety of Life at Sea, 1960, such voyages are similar in nature and shall be considered as "international voyages" and subject to the same requirements for the purposes of this subchapter.

5. Subpart 90.10 is amended by inserting after § 90.10–23 a new § 90.10–24 reading as follows:

§ 90.10–24 Nuclear vessel.

(a) A nuclear vessel is a vessel provided with a nuclear powerplant for propulsion or any other purpose, or any vessel handling or processing substantial amounts of radioactive material other than as cargo.

Subpart 90.15—Equivalents

6. Section 90.15–1(a) is amended to read as follows:

§ 90.15–1 Conditions under which equivalents may be used.

(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 any particular provision shall be made or arrangement shall be adopted, the Commandant may accept in substitution therefor any other fitting, material, apparatus, or equipment, or type thereof, or any other arrangement: *Provided*, That he shall have been satisfied by suitable trials that the fitting, material, appliance, apparatus, or equipment, or type thereof, or the provision or arrangement is at least as effective as that specified in this subchapter.

Subpart 90.20—General Marine Engineering Requirements

7. Section 90.20–5(a) is amended to read as follows:

§ 90.20–5 Nuclear vessels.

(a) Nuclear vessels shall comply with the applicable requirements in Subpart 57.30 of Part 57 of Subchapter F (Marine Engineering) of this chapter. The regulations covering the transportation and handling of radioactive materials as cargo are contained in Part 146 of Subchapter N (Dangerous Cargoes) of this chapter.

(Sec. 2, 23 Stat. 118, as amended, secs. 2, 633, 63 Stat. 496, 545; 46 U.S.C. 2, 14 U.S.C. 2, 633. Interpret or apply R.S. 4417a, as amended, 4472, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152; 46 U.S.C. 391a, 170, 1333, 390b)

PART 91—INSPECTION AND CERTIFICATION

1. The authority for Part 91 is amended to read as follows:

AUTHORITY: The provisions of Part 91 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4418, as amended, 4426, as amended, 4427, as amended, 4433, as amended, 4453, as amended, 4488, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 392, 404, 405, 411, 435, 481, 366, 395, 363, 367, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857. Additional authority cited with sections affected.

Subpart 91.01—Certificate of Inspection

2. Section 91.01–10(a) is amended to read as follows:

§ 91.01–10 Period of validity.

(a) Certificates of inspection will be issued for periods of either 1 or 2 years. Application may be made by the master, owner, or agent for inspection and issuance of a new certificate of inspection at any time during the period of validity of the current certificate. For nuclear vessels, the period of validity shall be 1 year.

Subpart 91.20—Initial Inspection

3. Section 91.20–15 is amended to read as follows:

§ 91.20–15 Scope of inspection.

(a) The initial inspection, which may consist of a series of inspections during the construction of a vessel, shall include a complete inspection of the structure, machinery, and equipment, including the outside of the vessel's bottom, and the inside and outside of the boilers. The inspection shall be such as to insure that the arrangements, materials, and scantlings of the structure, boilers and other pressure vessels and their appurtenances, piping, main and auxiliary machinery, electrical installations, lifesaving appliances, fire-detecting and extinguishing equipment, pilot ladders, and other equipment fully comply with the applicable regulations for such vessel and are in accordance with approved plans, and that the radio installations, including fixed and portable radios for lifeboats, are in accordance with the requirements of the Federal Communications Commission. The inspection shall also be such as to insure that the workmanship of all parts of the vessel and its equipment is in all respects satisfactory, and that the vessel is provided with lights, means of making sound signals and distress signals as required by applicable regulations and the applicable "Rules of the Road."

(b) When equipment is installed which is not required by applicable regulations in this subchapter, that equipment shall be inspected and tested as required for such equipment by applicable regulations in Subchapter H (Passenger Vessels) of this chapter. For example, fire-detecting systems shall be inspected and tested as required by Subpart 71.20 of Subchapter H (Passenger Vessels) of this chapter.

(c) For nuclear vessels, the inspections required by this section shall be made except insofar as they may be limited by the presence of radiation. In addition,

the inspection shall include any special requirements of the vessel's "Safety Assessment."

Subpart 91.25—Inspection for Certification

4. Section 91.25–10 is amended to read as follows:

§ 91.25–10 Scope of inspection.

(a) The inspection for certification shall include an inspection of the structure, boilers, and other pressure vessels, machinery, and equipment. The inspection shall be such as to insure that the vessel, as regards the structure, boilers and other pressure vessels, and their appurtenances, piping, main and auxiliary machinery, electrical installations, lifesaving appliances, fire-detecting and extinguishing equipment, pilot ladders, and other equipment, is in satisfactory condition and fit for the service for which it is intended, and that it complies with the applicable regulations for such vessel, and that the radio installation is in compliance with the requirements of the Federal Communications Commission. The lights and means of making sound signals and the distress signals carried by the vessels shall also be subject to the above mentioned annual inspection for the purpose of insuring that they comply with the requirements of the applicable regulations and the applicable Rules of the Road.

(b) For nuclear vessels, the inspections required by this section shall be made except insofar as they may be limited by the presence of radiation. In addition, the inspection shall include any special requirements of the vessel's "Safety Assessment."

(c) When equipment is installed which is not required by applicable regulations in this subchapter, that equipment shall be inspected and tested as required for such equipment by applicable regulations in Subchapter H (Passenger Vessels) of this chapter. For example, fire-detecting systems shall be inspected and tested as required by Subpart 71.25 of Subchapter H (Passenger Vessels) of this chapter.

5. Subpart 91.60, consisting of § 91.60–1, is amended by revising the heading and text to read as follows:

Subpart 91.60—Certificates Under International Convention for Safety of Life at Sea, 1960

Sec.

§ 91.60–1 Application.

(a) The provisions of this subpart, with the exception of §§ 91.60–30 and 91.60–40(e), shall apply to all cargo vessels on an international voyage other than nuclear vessels.

(b) The provisions of §§ 91.60–30, 91.60–35 and 91.60–40(e) shall apply to all nuclear cargo vessels on an international voyage.

§ 91.60–5 Cargo Ship Safety Construction Certificate.

(a) All vessels on an international voyage are required to have a Cargo Ship Safety Construction Certificate. This certificate shall be issued by the U.S. Coast Guard or the American Bureau of Shipping to certain vessels on behalf of the United States of America as provided in Regulation 12, Chapter I, of the International Convention for Safety of Life at Sea, 1960.

(b) All such vessels shall meet the applicable requirements of this chapter for vessels on an international voyage.

§ 91.60–10 Cargo Ship Safety Equipment Certificate.

(a) All vessels on an international voyage are required to have a Cargo Ship Safety Equipment Certificate.

(b) All such vessels shall meet the applicable requirements of this chapter for vessels on an international voyage.

§ 91.60–15 Cargo Ship Safety Radiotelegraphy Certificate.

(a) The application for Cargo Ship Safety Radiotelegraphy Certificate is made on FCC Form 801 to the local office of the Federal Communications Commission.

(b) Where applicable, a Cargo Ship Safety Radiotelegraphy Certificate will be issued by the Federal Communications Commission to a vessel meeting its requirements for a vessel fitted with a radiotelegraph installation.

§ 91.60–20 Cargo Ship Safety Radiotelephony Certificate.

(a) The application for a Cargo Ship Safety Radiotelephony Certificate is made on FCC Form 801 to the local office of the Federal Communications Commission.

(b) Where applicable, a Cargo Ship Safety Radiotelephony Certificate will be issued by the Federal Communications Commission to a vessel meeting its applicable requirements for a vessel fitted with a radiotelephone installation.

§ 91.60–25 Exemption Certificate.

(a) A vessel may be exempted by the Commandant from complying with certain requirements of the Convention under his administration upon request made in writing to him and transmitted via the Officer in Charge, Marine Inspection.

(b) When an exemption is granted to a vessel by the Commandant under and in accordance with the Convention, an Exemption Certificate describing such exemption shall be issued through the appropriate Officer in Charge, Marine Inspection, in addition to other required certificates.

§ 91.60–30 Nuclear Cargo Ship Safety Certificate.

(a) All nuclear cargo vessels on an international voyage are required to have a Nuclear Cargo Ship Safety Certificate.

(b) All such vessels shall meet the applicable requirements of this chapter for nuclear vessels on an international voyage.

(c) Nuclear vessels cannot be exempted from any requirements of the Convention.

§ 91.60–35 Posting of Convention certificates.

(a) The certificates described in this subpart, or certified copies thereof, when issued to a vessel shall be posted in a prominent and accessible place on the vessel.

(b) The certificates shall be carried in a manner similar to that described in § 91.01–5 for a certificate of inspection.

§ 91.60–40 Duration of certificates.

(a) A Cargo Ship Safety Equipment Certificate shall be issued for a period of not more than 24 months.

(b) A Cargo Ship Safety Construction Certificate shall be issued for a period of not more than 60 months.

(c) A Cargo Ship Safety Radiotelegraphy Certificate and a Cargo Ship Safety Radiotelephony Certificate shall be issued for a period of not more than 12 months.

(d) An Exemption Certificate shall not be valid for longer than the period of the certificate to which it refers.

(e) The Nuclear Cargo Ship Safety Certificate shall be issued for a period of not more than 12 months.

(f) A Convention certificate may be withdrawn, revoked, or suspended at any time when it is determined the vessel is no longer in compliance with applicable requirements. (See § 2.01–70 of this chapter for procedures governing appeals.)

§ 91.60–45 American Bureau of Shipping.

(a) The American Bureau of Shipping, with its home office at 45 Broad Street, New York, N.Y., 10004, is hereby designated as an organization duly authorized to issue the "Cargo Ship Safety Construction Certificate" to certain cargo ships on behalf of the United States of America as provided in Regulation 12, Chapter I, of the International Convention for Safety of Life at Sea, 1960, and Executive Order 11239 and the certificate shall be subject to the requirements in this subpart. The American Bureau of Shipping is authorized to place the official seal of the United States of America on the certificate. This designation and delegation to the American Bureau of Shipping shall be in effect from May 26, 1965, until terminated by proper authority and notice of cancellation is published in the FEDERAL REGISTER.

(b) At the option of the owner or agent of a vessel on an international voyage and on direct application to the American Bureau of Shipping, the Bureau may issue to such vessel a Cargo Ship Safety Construction Certificate, having a period of validity of not more than 60 months after ascertaining that the vessel:

(1) Has met the applicable requirements of the Convention; and,

(2) Is currently classed by the Bureau and classification requirements have been dealt with to the satisfaction of the Bureau.

(c) When the Bureau determines that a vessel to which it has issued a Cargo Ship Safety Construction Certificate no longer complies with the Bureau's applicable requirements for classification, the Bureau shall immediately furnish to the Coast Guard all relevant information, which will be used by the Coast Guard to determine whether or not to withdraw, revoke or suspend the Cargo Ship Safety Construction Certificate.

(Sec. 25, 41 Stat. 998, as amended, sec. 701, 62 Stat. 731, as amended; 46 U.S.C. 881, 18 U.S.C. 701)

PART 92—CONSTRUCTION AND ARRANGEMENT

1. The authority for Part 92 is amended to read as follows:

AUTHORITY: The provisions of this Part 92 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4417, as amended, 4418, as amended, 4426, as amended, 4488, as amended, 4490, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 392, 404, 461, 482, 395, 363, 367, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-14, Nov. 26, 1954, 19 F.R. 8026; CGFR 56-28, July 24, 1956, 21 F.R. 5659; 167-38, Oct. 26, 1959, 24 F.R. 8857.

PART 93—STABILITY

1. The authority for Part 93 is amended to read as follows:

AUTHORITY: The provisions of this Part 93 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4417, as amended, 4418, as amended, 4426, as amended, 4488, as amended, 4490, as amended, sec. 3, 24 Stat. 129, as amended, 41 Stat. 305, as amended, sec. 2, 45 Stat. 1943, as amended, sec. 2, 49 Stat. 888, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 392, 404, 481, 482, 483, 363, 85a, 88a, 367, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-14, Nov. 26, 1954, 19 F.R. 8026; CGFR 56-28, July 24, 1956, 21 F.R. 5659; 167-38, Oct. 26, 1959, 24 F.R. 8857. Additional authority cited with sections affected.

Subpart 93.05—Stability Test

2. Section 93.05-1 is amended by adding a new paragraph (c) reading as follows:

§ 93.05-1 When required.

* * * * *

(c) The Commandant may also allow the stability test of an individual vessel or class of vessels, especially designed for the carriage of liquid or ore in bulk, to be dispensed with when reference to existing data for similar vessels clearly indicates that due to the vessel's proportions and arrangements more than sufficient metacentric height will be available in all probable loading conditions.

Subpart 93.15—Stability Letter

3. Section 93.15-5 is amended by adding a new paragraph (b) reading as follows:

§ 93.15-5 Information contained in stability letter.

* * * * *

(b) Stability letters issued to vessels which are exempted from a stability test in accordance with § 93.05-1(c), will record this fact.

PART 94—LIFESAVING EQUIPMENT

1. The authority for Part 94 is amended to read as follows:

AUTHORITY: The provisions of this Part 94 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4417, as amended, 4418, as amended, 4426, as amended, 4488, as amended, 4491, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 392, 404, 481, 489, 395, 363, 367, 526p, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-14, Nov. 26, 1954, 19 F.R. 8026; CGFR 56-28, July 24, 1956, 21 F.R. 5659; 167-38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 94.10—Lifeboats, Liferafts, Lifefloats, Buoyant Apparatus, and Rescue Boats

2. Section 94.10-1 is amended to read as follows:

§ 94.10-1 Application.

(a) Except as otherwise provided in this section, the provisions of this subpart shall apply to all vessels other than motorboats, contracted for on or after May 26, 1965.

(b) Vessels other than motorboats, contracted for prior to May 26, 1965, shall meet the requirements of § 94.10-90.

(c) Inspected motorboats carrying freight for hire shall be provided with such number and size of approved liferafts, lifefloats, or buoyant apparatus as deemed necessary by the Officer in Charge, Marine Inspection. Workboats or skiffs may be permitted by the Officer in Charge, Marine Inspection, if considered suitable.

(d) In the case of special types of vessels subject to the International Convention for Safety of Life at Sea, 1960, which are not specifically treated in this subpart, such as whale factory ships, fish processing and canning ships, etc., the Commandant may give special consideration as to lifesaving equipment requirements to the extent permitted by the International Convention for Safety of Life at Sea, 1960.

3. Section 94.10-5 is amended by revising subparagraphs (a)(2), (a)(3), and (b)(1) and by adding a new subparagraph (b)(3), to read as follows:

§ 94.10-5 Type of lifeboats, liferafts, lifefloats, buoyant apparatus, and rescue boats required.

(a) *Lifeboats.* * * *

(2) All lifeboats certified to carry 60 or more but not over 100 persons shall be either motor lifeboats or shall be fitted with an approved type of hand-propelling gear. Lifeboats carrying more than 100 persons shall be motor lifeboats.

(3) A Class 1 motor lifeboat is one that is fitted with a compression-ignition engine, is capable of being readily started in all conditions, and has sufficient fuel for 24 hours continuous operation. The speed ahead in smooth water when loaded with its full complement of persons and equipment shall be at least 6 knots.

* * * * *

(b) *Liferafts.* (1) All rigid type liferafts shall be of an approved type, constructed in accordance with Subpart 160.018 of Subchapter Q (Specifications) of this chapter. Type A liferafts shall be stowed on the standard liferaft skids required by § 94.15-10(c)(1) unless specifically noted otherwise. Rigid type liferafts shall not be used as required equipment on vessels on an international voyage.

* * * * *

(3) On vessels on an international voyage, each inflatable liferaft shall have a carrying capacity of not less than 6 nor more than 25 persons.

4. Section 94.10-10 is amended to read as follows:

§ 94.10-10 Requirements for vessels in ocean or coastwise service other than barges; towing, fishing, and wrecking vessels; pilot boats; and yachts.

(a) All vessels shall be provided with sufficient lifeboats on each side of the vessel to accommodate all persons on board.

(b) Lifeboats shall be not less than 24 feet in length, except where owing to the size of the vessel, or for other reasons, the Commandant considers the carriage of such lifeboats to be unreasonable or impracticable. However, in no case shall lifeboats of less than 16 feet in length be used.

(c) All vessels of 1,600 gross tons and over on an international voyage shall carry at least one motor-propelled lifeboat of Class 1.

(d) In addition to the lifeboats required by paragraph (a) of this section, all vessels on an international voyage and all vessels in ocean service shall be provided with liferafts of such aggregate capacity to accommodate at least one-half the total number of persons on board. Those vessels having widely spaced accommodations and/or working spaces shall have at least one liferaft in each such location.

(e) Inflatable liferafts may be substituted for lifeboats on certain vessels not on an international voyage in accordance with § 94.10-55.

§ 94.10-30 [Canceled]

5. Section 94.10-30 *Requirements for whale factory vessels in ocean or coastwise service* is canceled. (See § 94.10-1(d) for revised requirements.)

6. Section 94.10-40 is amended by revising the text of paragraph (a) (Table 94.10-40(a) remains in effect) and by adding a new paragraph (c), reading as follows:

§ 94.10-40 Requirements for vessels in Great Lakes; lakes, bays, and sounds; or river service other than fireboats, wrecking and fishing vessels, pilots boats, and yachts.

(a) All vessels, except those on an international voyage, shall be provided

with lifeboats and liferafts as required by Table 94.10-40(a).

* * * * *

(c) All vessels on an international voyage shall meet the applicable requirements of § 94.10-10.

7. Section 94.10-55 is amended to read as follows:

§ 94.10-55 Inflatable liferafts as an alternate for lifeboats, other liferafts, lifefloats and buoyant apparatus on certain vessels not on an international voyage.

(a)(1) On all vessels inflatable liferafts may be permitted as substitutes for other types of liferafts, lifefloats and buoyant apparatus wherever they may be required.

(2) The capacity of inflatable liferafts carried in place of other liferafts, lifefloats, and buoyant apparatus shall be at least equivalent to that required of the equipment for which substitution is made.

(3) The substitution of inflatable liferafts shall not be made without prior approval of the Officer in Charge, Marine Inspection.

(b) On all vessels less than 3,000 gross tons the substitution of liferafts for lifeboats may be permitted as follows:

(1)(i) On all vessels under 500 gross tons, inflatable liferafts may be substituted for all required lifeboats.

(ii) The total capacity of the inflatable liferafts shall be at least equal to the total number of persons that the lifeboats would have been required to accommodate. Partial substitution is permissible provided the aggregate lifeboat and inflatable liferaft capacity is sufficient to accommodate the required number of persons, as indicated above.

(iii) Where substitution of inflatable liferafts is made, a suitable rescue boat shall be provided. In the case of partial substitution, a lifeboat may serve as the rescue boat.

(iv) In the exceptional case on a vessel under 100 gross tons, the rescue boat may be omitted when it can be shown to the satisfaction of the Commandant that it is not necessary due to the size, arrangement and maneuverability of the vessel, and its intended service.

(2)(i) On all vessels of 500 gross tons and upward to 1,600 gross tons, inflatable liferafts may be substituted for all required lifeboats provided one approved lifeboat of a size acceptable to the Officer in Charge, Marine Inspection, suitable for rescue purposes, is installed.

(ii) The aggregate lifeboat and inflatable liferaft capacity shall be at least equal to the total number of persons that the lifeboats would have been required to accommodate.

(iii) The launching arrangement and location of the lifeboat to be used as rescue boat shall be such that it can be readily launched and shall be to the satisfaction of the Officer in Charge, Marine Inspection.

(3)(i) On all vessels of 1,600 gross tons and upward to 3,000 gross tons, inflatable liferafts may be substituted for all except two of the required lifeboats. These lifeboats shall be of a size acceptable to the Officer in Charge, Marine Inspection, and shall be suitable for rescue purposes. In all cases, two approved lifeboats, one on each side, shall be provided.

(ii) The aggregate lifeboat and inflatable liferaft capacity shall be at least equal to the total number of persons that the lifeboats, for which substitutions are made plus those remaining on board, would have been required to accommodate.

(4) The substitution of inflatable liferafts for lifeboats shall not be made without prior approval of the Officer in Charge, Marine Inspection.

(c) On all seagoing barges of 100 gross tons and over an inflatable liferaft may be substituted for the required lifeboat, the total capacity of which shall be sufficient to accommodate all persons on board.

(1) On seagoing barges employed as drilling tenders in the off-shore oil exploration industry where substitution of inflatable liferafts is made, a suitable rescue boat shall be provided. In the case of partial substitution, a lifeboat may serve as the rescue boat.

(d) The Commandant may give special consideration to the substitution of approved inflatable liferafts for required lifeboats on vessels of 3,000 gross tons and over.

8. Section 94.10-90 is amended to read as follows:

§ 94.10-90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 94.10-5 through 94.10-55 shall be complied with insofar as the number and general type of lifesaving equipment is concerned. Existing items of lifesaving equipment previously approved, but not meeting the applicable specifications or requirements set forth in §§ 94.10-5 through 94.10-55 may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs, alterations, and replacements may be permitted to the same standards as the original installation. However, all new installations or major replacements shall meet the applicable specifications or requirements.

(2) On vessels of over 3,000 gross tons certificated for ocean, coastwise, or Great Lakes service, all replacement of disengaging apparatus shall meet the requirements of § 94.10-5(a)(4)(i). On all other vessels certificated for any service, all of the lifeboats on a particular vessel shall be fitted with the same type of disengaging apparatus.

(3) The requirements of § 94.10-10(c) shall not apply except for replacements, and then only if it can be done without change to existing davits and arrangements.

Subpart 94.15—Stowage and Marking of Lifeboats, Liferafts, Lifefloats, and Buoyant Apparatus

9. Section 94.15-1 is amended to read as follows:

§ 94.15-1 Application.

(a) The provisions of this subpart, with the exception of § 94.15-90, shall apply to all vessels contracted for on or after May 26, 1965. Vessels contracted for prior to May 26, 1965, shall meet the requirements of § 94.15-90.

10. Section 94.15-10(b) is amended to read as follows:

§ 94.15-10 Stowage.

* * * * *

(b) *Lifeboat stowage.* (1) Every lifeboat shall be attached to a separate set of davits.

(2) Suitable access to the lifeboats shall be provided to enable the crew to prepare the lifeboats for launching.

(3) Lifeboats shall be so stowed that embarkation into them may be made rapidly and in good order.

(4) Lifeboats shall not be stowed in the bows of the vessel nor as far aft as to be endangered by the propellers or overhang of the stern.

(5) Lifeboats shall be so stowed that it shall not be necessary to lift them in order to swing out the davits, except on small vessels where such requirement is unreasonable and impracticable in the opinion of the Officer in Charge, Marine Inspection.

(6) Means shall be provided for bringing the lifeboats against the ship's side and holding them there so that persons may be safely embarked.

(7) On vessels certificated for ocean or coastwise service, lifeboats shall be fitted with skates or other suitable means to facilitate launching against an adverse list of up to 15 degrees. However, skates may be dispensed with if, in the opinion of the Commandant, the arrangements are such as to insure that the lifeboats can be satisfactorily launched without such skates.

(8) On vessels in ocean and coastwise service, where applicable, means shall be provided outside the machinery space to prevent the discharge of water into the lifeboats while they are being lowered. This shall consist of baffles to deflect the water down the vessel's side, or reach rods, or other means to close the discharge openings.

11. Section 94.15-90 is amended to read as follows:

§ 94.15-90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) The provisions of §§ 94.15-5 through 94.15-15 shall be met except as further set forth in this paragraph.

(2) The requirements of § 94.15-10(b)(7) shall apply unless in the opinion of the Officer in Charge, Marine Inspection, it is unreasonable or impracticable, or the arrangement or construction of the vessel make the use of skates or similar appliances unnecessary.

Subpart 94.20—Equipment for Lifeboats, Liferafts, Lifefloats, and Buoyant Apparatus

12. Section 94.20-1 is amended to read as follows:

§ 94.20–1 Application.

(a) The provisions of this subpart, with the exception of § 94.20–90, shall apply to all vessels contracted for on or after May 26, 1965. Vessels contracted for prior to May 26, 1965, shall meet the requirements of § 94.20–90.

13. Section 94.20–10(a) is amended by revising Table 94.20–10(a) to read as follows:

§ 94.20–10 Required equipment for lifeboats.

(a) * * *

TABLE 94.20–10(a)

Letter identification	Item	Ocean and coastwise		Great Lakes		Lakes, bays and sounds; and rivers
		Other than seagoing barges	Seagoing barges	Vessels carrying cargo	Other	
a	Bailer	[1] 1	None	1	None	None
b	Bilge pump	[1] 1	None	None	None	None
c	Boathooks	2	2	1	1	1
d	Bucket	2	1	1	1	1
e	Compass and mounting	1	None	None	None	None
f	Ditty bag	1	None	None	None	None
g	Drinking cups	1	1	None	None	None
h	Fire extinguishers (motor-propelled lifeboats only).	2	2	2	2	2
i	First-aid kit	1	None	None	None	None
j	Flashlight	1	None	1	None	None
k	Hatchets	2	None	2	1	1
l	Heaving line	2	None	None	None	None
m	Jackknife	1	1	None	None	None
n	Ladder, lifeboat, gunwale	1	None	None	None	None
o	Lantern	1	1	1	1	1
p	Lifeline	1	1	1	1	1
q	Life preservers	2	2	2	2	2
r	Locker	1	None	1	None	None
s	Mast and sail (oar-propelled lifeboats only)	1	None	None	None	None
t	Matches (boxes)	2	2	1	1	1
u	Milk, condensed (pounds per person)	1	None	None	None	None
v	Mirrors, signaling	2	None	None	None	None
w	Oars	[2] 1 unit	[2] 1 unit	[2] 1 unit	[2] 1 unit	[2] 1 unit
x	Oil, illuminating (quarts)	1	None	1	None	None
y	Oil, storm (gallons)	1	None	1	None	None
z	Painter	2	1	2	1	1
aa	Plugs	1	1	1	1	1
bb	Provisions (pounds per person)	2	None	None	None	None
cc	Rowlocks	[2] 1 unit	[2] 1 unit	[2] 1 unit	[2] 1 unit	[2] 1 unit
dd	Rudder and tiller	1	1	1	1	None
ee	Sea anchor	1	None	1	None	None
ff	Signals, distress, floating orange smoke	2	None	None	None	None
gg	Signals, distress, red hand flare	[2] 1 unit	None	[2] ½ unit	None	None
hh	Signals, distress, red parachute flare	[2] 1 unit	None	[2] ½ unit	None	None
ii	Tool kit (motor-propelled lifeboat only)	[2] 1 unit	[2] 1 unit	[2] 1 unit	[2] 1 unit	[2] 1 unit
jj	Water (quarts per person)	3	1	None	None	None
kk	Whistle, signaling	1	None	None	None	None
ll	Fishing kit	1	None	None	None	None
mm	Cover, protecting	1	None	None	None	None
nn	Signals, lifesaving	1	None	None	None	None
oo	Desalting kit	[4] 1	None	None	None	None

[1] Motor-propelled lifeboats, certified for 100 or more persons, shall be fitted with an additional hand bilge pump of an approved type or a power bilge pump.
[2] For description of units, see § 94.20–15.
[3] Vessels in coastwise service need only carry 1 unit for each 5 lifeboats or fraction thereof.
[4] Optional equipment. See § 94.20–15(jj) water.

14. Section 94.20–15 is amended by revising paragraphs (g), (j), (w), (text only, Table 94.20–15(w) remains in effect) and (jj), and by adding paragraphs (kk) to (oo), inclusive, reading as follows:

§ 94.20–15 Description of equipment for lifeboats.

* * * * *

(g) *Drinking cups.* Drinking cups shall be enamel coated or plastic, graduated in ounces, and be provided with lanyards 3 feet in length.

* * * * *

(j) *Flashlight.* The flashlight shall be of an approved Type I, Size No. 3, constructed in accordance with Subpart 161.008 of Subchapter Q (Specifications) of this chapter. Three spare cells (or one 3-cell battery) and two spare bulbs, stowed in a watertight container, shall be provided with each flashlight. Batteries shall be replaced yearly during the annual stripping, cleaning, and overhaul of the lifeboat.

* * * * *

(w) *Oars.* A unit, consisting of a complement of rowing oars and steering oar, shall be provided for each lifeboat in accordance with Table 94.20–15(w), except that motor-propelled and hand-propelled lifeboats need only be equipped with four rowing oars and one steering oar. In any case, the emergency lifeboats shall be provided with the full complement of oars prescribed by the table. All oars shall be buoyant.

* * * * *

(jj) *Water.* (1) For each person the lifeboat is certified to carry, there shall be provided 3 quarts of drinking water consisting of nine approved hermetically sealed containers per person, constructed and filled in accordance with Subpart 160.026 of Subchapter Q (Specifications) of this chapter. The service life of this equipment shall be limited to 5 years from date of packing, and replacement shall be made no later than the first annual stripping, cleaning, and overhaul of the lifeboat after the date of expiration. Approved desalting kits capable of producing an equal amount of drinking water may be substituted for not more than one third of the drinking water required to be carried.

(2) The drinking water containers shall be stowed in drinking water tanks, lockers, or other compartments providing suitable protection.

(kk) *Whistle, signaling.* The whistle shall be of the ball-type, of corrosion-resistant construction, with a 3-foot lanyard attached, and in good working order.

(ll) *Fishing kit.* The fishing kit shall be of an approved type constructed in accordance with Subpart 160.061 of Subchapter Q (Specifications) of this chapter.

(mm) *Cover, protecting.* The protecting cover shall be of a highly visible color, and capable of protecting the occupants against injury by exposure.

(nn) *Table of lifesaving signals.* The table shall be in accordance with the provisions of Chapter V, Regulation 16, of the International Convention for Safety of Life at Sea, 1960, and shall be printed on water resistant paper.

(oo) *Desalting kit.* One or more approved desalting kits may be used as a substitute for one third of the required amount of drinking water per person, and shall be constructed in accordance with Subpart 160.058 of Subchapter Q (Specifications) of this chapter.

14a. Section 94.20–20 is amended by changing paragraph (b) to read as follows (but the note following paragraph (b) is retained without change):

§ 94.20–20 Required equipment for liferafts.

* * * * *

(b) Inflatable liferafts shall be equipped with ocean service equipment for vessels on ocean and coastwise routes and with limited service equipment for vessels on Great Lakes, lakes, bays, sounds, and river routes in accordance with Subpart 160.051 of Subchapter Q (Specifications) of this chapter.

15. Section 94.20–90 is amended to read as follows:

§ 94.20–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 94.20–5 through 94.20–35 shall be complied with insofar as the number of items of equipment and the method of stowage of the equipment is concerned. Existing items of equipment previously approved, but not meeting the applicable specifications or requirements set forth in §§ 94.20–5 through 94.20–35 may be continued in service so long as they are maintained in a good condition to the satisfaction of the Officer in Charge, Marine Inspection. All new installations or replacements shall meet the applicable specifications or requirements in this part.

(2) Lifeboats previously approved without automatic drain plugs shall have

two plugs or caps attached to the lifeboat by separate chains.

(3) Decked lifeboats shall have no drain holes or plugs, but shall be equipped with two bilge pumps.

(4) On vessels certificated for ocean or coastwise service and contracted for prior to November 19, 1952, unless other approved means are provided to achieve the same purpose, three ½-inch-diameter manila grablines shall be fitted extending from gunwale to gunwale under the keel to enable persons to cling to and climb upon the upturned lifeboat. The ends of each grabline shall be securely attached to the side benches or other permanent part of the lifeboat and each grabline shall be made up with figure eight knots spaced approximately 18 inches apart in order to provide hand grips. Means shall be provided for taking up any slack in the grablines.

Subpart 94.25—Davits for Lifeboats

16. The heading for Subpart 94.25 is amended to read "Davits for Lifeboats," as set forth above.

17. Section 94.25–1(a) is amended to read as follows:

§ 94.25–1 Application.

(a) The provisions of this subpart, with the exception of § 94.25–90, shall apply to all vessels contracted for on or after May 26, 1965. Vessels contracted for prior to May 26, 1965, shall meet the requirements of § 94.25–90.

18. Section 94.25–5(d) is amended to read as follows:

§ 94.25–5 General.

* * * * *

(d) All davits and necessary gear shall be such as to meet the requirements for the installation test set forth in Subpart 94.35. The design, arrangements, and installation shall be such as to preclude undue delay in getting lifeboats into the water, and shall be of such strength that the lifeboats can be turned out manned by a launching crew and then safely lowered with the full complement of persons and equipment, with the ship listed to 15 degrees either way and with a 10-degree trim.

19. Section 94.25–90 is amended to read as follows:

§ 94.25–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 94.25–5 through 94.25–15 shall be complied with insofar as the number and general type of equipment is concerned. Existing items of equipment previously approved, but not meeting the applicable specifications or requirements set forth in §§ 94.25–5 through 94.25–15 may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs, alterations, and replacements may be made to the same standards as the original installation. However, all new installations or major replacements shall meet the applicable specifications or requirements.

(2) On vessels the keels of which were laid after September 1, 1941, all davits for lifeboats weighing in excess of 5,000 pounds when fully equipped (but without persons) shall be of the gravity type.

Subpart 94.33—Blocks and Falls for Lifeboats

20. The heading for Subpart 94.33 is amended to read "Blocks and Falls for Lifeboats," as set forth above.

21. Section 94.33–1(a) is amended to read as follows:

§ 94.33–1 Application.

(a) The provisions of this subpart, with the exception of § 94.33–90, shall apply to all vessels contracted for on or after May 26, 1965. Vessels contracted for prior to May 26, 1965, shall meet the requirements of § 94.33–90.

22. Section 94.33–5(b) is amended to read as follows:

§ 94.33–5 General.

* * * * *

(b) Falls shall be of such length that the lifeboat may be lowered to the water with the vessel at its lightest draft, listed 15 degrees either way.

23. Section 94.33–90 is amended to read as follows:

§ 94.33–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 94.33–5 through 94.33–15, as applicable, shall be complied with insofar as the general type of equipment is concerned. Existing equipment previously approved, but not meeting the detailed requirements of §§ 94.33–5 through 94.33–15 may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs, alterations and replacements may be made to the same standards as the original installation. However, all new installations or major replacements shall meet the applicable requirements.

Subpart 94.35—Installation of Lifeboats, Davits, and Winches

24. Section 94.35–5(b)(3) is amended to read as follows:

§ 94.35–5 Tests and examinations.

* * * * *

(b) * * *

(3) The falls shall be of sufficient length to lower the lifeboat as required by § 94.33–5(b).

Subpart 94.40—Life Preservers

25. Section 94.40–1 is amended to read as follows:

§ 94.40–1 Application.

(a) The provisions of this subpart, with the exception of § 94.40–90, shall apply to all vessels contracted for on or after May 26, 1965. Vessels contracted for prior to May 26, 1965, shall meet the requirements of § 94.40–90.

26. Section 94.40–5 is amended to read as follows:

§ 94.40–5 General.

(a) All life preservers shall be of an approved type, constructed in accordance with Subparts 160.002, 160.005, or 160.055 of Subchapter Q (Specifications) of this chapter.

(b) All life preservers on vessels on an international voyage shall be provided with a whistle of the ball-type, of corrosion-resistant construction, with a 3-foot lanyard attached, and in good working order. It shall be attached to the life preserver by the lanyard alone without hooks, snaps, clips, etc., and shall extend not less than 15 inches from the life preserver body. While stowed on the life preserver, the whistle lanyard shall be coiled and stopped-off.

27. Section 94.40–10 is amended by adding a paragraph (c) reading as follows:

§ 94.40–10 Numbered required.

* * * * *

(c) In addition to the life preservers required by paragraph (a) of this section, all vessels on an international voyage shall be provided with approved type life preservers for 5 percent of the persons carried. Such vessels carrying persons in addition to the crew shall be provided with life preservers suitable for children when children are aboard.

28. Section 94.40–90 is amended to read as follows:

§ 94.40–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 94.40–5 through 94.40–15 shall be complied with insofar as the number of items of equipment and the method of stowage is concerned. Existing items of equipment previously approved, but not meeting the applicable specifications or requirements set forth in §§ 94.40–5 through 94.40–15 may be continued in service so long as they are serviceable and in good condition to the satisfaction of the Officer in Charge, Marine Inspection, except that:

(i) All kapok and fibrous glass life preservers which do not have plastic-covered pad inserts, as required by Subparts 160.002 and 160.005 of Subchapter Q (Specifications) of this chapter, shall be removed from service.

(2) All new installations or replacements shall meet the applicable specifications or requirements, except that:

(i) Cork and balsa wood life preservers, constructed in accordance with the applicable provisions of Subpart 160.003 or 160.004 and manufactured as approved life preservers prior to July 1, 1965, may be accepted as new or replacement equipment required by this subchapter if such life preservers are serviceable and in good condition to the satisfaction of the Officer in Charge,

Marine Inspection: *Provided, however,* That such life preservers bearing basic Approval No. 160.003 or 160.004 shall not be considered as approved equipment meeting the requirements for those cargo ships on an international voyage, constructed or contracted for on or after May 26, 1965.

Subpart 94.43—Ring Life Buoys and Water Lights

29. Section 94.43–1(a) is amended to read as follows:

§ 94.43–1 Application.

(a) The provisions of this subpart, with the exception of § 94.43–90, shall apply to all vessels contracted for on or after May 26, 1965. Vessels contracted for prior to May 26, 1965, shall meet the requirements of § 94.43–90.

30. Section 94.43–5 is amended by adding a new paragraph (c) reading as follows:

§ 94.43–5 General.

* * * * *

(c) All self-activating smoke signals shall be of an approved type, constructed in accordance with the requirements of Subpart 160.057 of Subchapter Q (Specifications) of this chapter which shall be capable of producing smoke of a highly visible color for at least 15 minutes.

31. Section 94.43–10 is amended by revising paragraph (b) and by adding new paragraphs (c) and (d) reading as follows:

§ 94.43–10 Number required.

* * * * *

(b) One of the ring life buoys on each side of the vessel shall have secured to it a line at least 15 fathoms in length. On vessels on an international voyage, the line shall be of a buoyant type.

(c) On vessels on an international voyage, at least two of the ring life buoys with water lights attached as required by Table 94.43–10(a) shall also be provided with an approved self-activated smoke signal and shall be capable of quick release from the bridge.

(d) On vessels on an international voyage, the ring life buoys required by this section shall be orange in color.

32. Section 94.43–90 is amended to read as follows:

§ 94.43–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 94.43–5 through 94.43–15 shall be complied with insofar as the number of items of equipment and the method of stowage is concerned. Existing items of equipment previously approved, but not meeting the applicable specifications or requirements set forth in §§ 94.43–5 through 94.43–15 may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. All new installations or replacements shall meet the applicable specifications or requirements in this subpart.

Subpart 94.50—Embarkation Aids

33. Section 94.50–1(a) is amended to read as follows:

§ 94.50–1 Application.

(a) The provisions of this subpart, with the exception of § 94.50–90, shall apply to all vessels other than yachts and fishing vessels contracted for on or after May 26, 1965. Vessels contracted for prior to May 26, 1965, shall meet the requirements of § 94.50–90.

34. Section 94.50–5(b)(2) is amended to read as follows:

§ 94.50–5 Ladders.

* * * * *

(b) *Vessels certificated for ocean, coastwise, or Great Lakes service.* * * *

(2) All ocean and coastwise vessels which normally employ a pilot shall have a ladder for the use of the pilot in addition to the ladders required by subparagraph (1) of this paragraph. Suitable spreaders, a man rope, and a safety line shall be kept readily available for use in conjunction with the pilot ladder whenever circumstances may so require. When used, the ladder shall be secured in a position so that each step rests firmly against the ship's side, and so the pilot can gain safe and convenient access to the ship after climbing not more than 30 feet. Whenever the distance from sea level is more than 30 feet, access from the pilot ladder to the ship shall be by means of an accommodation ladder or other equally safe and convenient means. Arrangements shall be such that the rigging of the ladder and the embarkation and debarkation of the pilot is supervised by a responsible officer of the ship, and handholds are provided to assist the pilot to pass safely and conveniently from the head of the ladder into the ship and onto the ship's deck. At night a light shining over the side shall be available for use, and the deck at the position where the pilot boards the ship shall be adequately lighted.

35. Subpart 94.50 is amended by inserting after § 94.50–10 a new § 94.50–15 reading as follows:

§ 94.50–15 Illumination for liferaft stowage areas.

(a) For all vessels on an international voyage, suitable illumination shall be provided for the liferaft stowage areas.

36. Section 94.50–90 is amended to read as follows:

§ 94.50–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 94.50–5 through 94.50–15 shall be complied with insofar as the number of items of equipment and the method of stowage is concerned. Existing items of equipment previously approved, but not meeting the applicable specifications or requirements of §§ 94.50–5 through 94.50–15 may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. All new installations or replacements shall meet the applicable specifications or requirements.

(2) The illumination for lifeboat launching operations need not meet the detailed requirements of Subchapter J (Electrical Engineering) of this chapter.

Subpart 94.55—Portable Radio Apparatus

37. Section 94.55–1 is amended to read as follows:

§ 94.55–1 Required on international voyage.

(a) All vessels on an international voyage shall be provided with a portable radio apparatus complying with the requirements of the Federal Communications Commission unless at least one lifeboat on each side of the vessel is fitted with a fixed radio installation. Such portable radio shall be kept in the radioroom, chartroom, or other suitable location ready to be moved to one or other of the lifeboats in the event of an emergency.

PART 95—FIRE PROTECTION EQUIPMENT

1. The authority for Part 95 is amended to read as follows:

AUTHORITY: The provisions of this Part 95 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4417, as amended, 4418, as amended, 4426, as amended, 4488, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 392, 404, 481, 395, 363, 367, 526p, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 95.05—Fire Detecting and Extinguishing Equipment, Where Required

2. Section 95.05–1 is amended to read as follows:

§ 95.05–1 Fire detecting, manual alarm, and supervised patrol systems.

(a) Fire detecting, manual alarm, and supervised patrol systems are normally not required. However, if installed, whether required or not, such systems shall meet the applicable requirements of Part 76 of Subchapter H (Passenger Vessels) of this chapter.

(b) In each compartment containing explosives, and in adjacent cargo compartments, there shall be provided a smoke detecting or other suitable type fire detecting system.

3. Section 95.05–20 is amended by adding a new paragraph (b) reading as follows:

§ 95.05–20 Sand.

* * * * *

(b) In lieu of the requirements in paragraph (a) of this section, one B–II fire extinguisher may be substituted.

Subpart 95.10—Fire Main System, Details

4. Section 95.10–1(a) is amended to read as follows:

§ 95.10–1 Application.

(a) The provisions of this subpart, with the exception of § 95.10–90, shall apply to all fire main installations contracted for on or after May 26, 1965. Installations contracted for prior to May 26, 1965, shall meet the requirements of § 95.10–90.

5. Section 95.10–5(b) is amended to read as follows:

§ 95.10–5 Fire pumps.

* * * * *

(b) On vessels of 1,000 gross tons and over on an international voyage, each required fire pump, while delivering water thru the fire main system at a pressure corresponding to that required by paragraph (c) of this paragraph, shall have a minimum capacity of at least two-thirds of that required for an independent bilge pump. However, in no case shall the capacity of each fire pump be less than that otherwise required by this section.

6. Section 95.10–10 is amended by changing paragraphs (c) and (j) to read as follows:

§ 95.10–10 Fire hydrants and hose.

* * * * *

(c) On vessels of 1,000 gross tons and over there shall be at least one shore connection to the fire main available to each side of the vessel in an accessible location. Suitable cut-out valves and check valves shall be provided. Suitable adapters also shall be provided for furnishing the vessel's shore connections with couplings mating those on the shore fire lines. Such vessels on an international voyage, shall be provided with at least one international shore connection. Facilities shall be available enabling such a connection to be used on either side of the vessel. The international shore connection shall be in accordance with specification Subpart 162.034 of Subchapter Q (Specifications) of this chapter.

* * * * *

(j) Firehose shall not be used for any other purpose than fire extinguishing, drills, and testing.

7. Section 95.10–15 is amended by adding a new paragraph (c) reading as follows:

§ 95.10–15 Piping.

* * * * *

(c) For vessels on an international voyage, the diameter of the fire main shall be sufficient for the effective distribution of the maximum required discharge from two fire pumps operating simultaneously. This requirement is in addition to § 95.10–5(c). The discharge of this quantity of water through hoses and nozzles at a sufficient number of adjacent hydrants shall be at a minimum Pitot tube pressure of approximately 50 pounds per square inch.

8. Section 95.10–90 is amended to read as follows:

§ 95.10–90 Installations contracted for prior to May 26, 1965.

(a) Installations contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 95.10–5 through 95.10–15 shall be complied with insofar as the number and general type of equipment is concerned. Existing equipment previously approved, but not meeting the applicable requirements of §§ 95.10–5 through 95.10–15 may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs, alterations, and replacements may be permitted to the same standards as the original installations. However, all new installations or major replacements shall meet the applicable requirements in this subpart.

(2) All vessels contracted for prior to November 19, 1952, other than motorboats, shall be fitted with fire pumps, hoses, and nozzles in accordance with Table 95.10–90(a)(2).

TABLE 95.10–90(a)(2)

Gross tons		Minimum number of pumps	Minimum hose and hydrant size, inches	Nozzle orifice size, inches	Length of hose, feet
Over	Not over				
-----	100	1	[1] 1½	[1] 9/16	[1] 50
100	1,000	1	[2] 1½	[2] ¾	[2] 50
1,000	----	2	[2] 1½	[2] ¾	[2] 50

[1] On vessels of 65 feet in length or less, ¾-inch hose of good commercial grade together with a commercial garden hose nozzle may be used. The pump may be hand operated and the length of hose shall be sufficient to assure coverage of all parts of the vessel.

[2] May use 50 feet of 2½-inch hose with ⅞-inch nozzles for exterior stations. 75 feet of 1½-inch hose with ¾-inch nozzles may be used for interior station in which case such interior stations shall have siamese connections.

(3) Vessels contracted for prior to July 1, 1935, need not meet the requirements of § 95.10–5(h), and vessels contracted for on or after July 1, 1935, but prior to November 19, 1952, may have a carbon dioxide "bilge" in lieu of "total flooding" system. However, in vessels of both categories where a conversion from coal to oil is contracted for on or after November 19, 1952, the provisions of § 95.10–5(h) shall apply.

(4) The general requirements of § 95.10–5 (c) through (g), § 95.10–10 (d) through (i), and § 95.10–15 shall be complied with insofar as is reasonable and practicable.

Subpart 95.13—Steam Smothering System, Details

8a. Section 95.13–1 is amended by adding a new paragraph (c) reading as follows:

§ 95.13–1 Application.

* * * * *

(c) This does not preclude the introduction of steam into such confined spaces as boiler casings or into tanks for steaming out purposes. Such installations are not to be considered as part of any required fire extinguishing system.

Subpart 95.15—Carbon Dioxide Extinguishing Systems, Details

9. Section 95.15–5(e) is amended to read as follows:

§ 95.15–5 Quantity, pipe sizes, and discharge rates.

* * * * *

(e) *Machinery spaces, paint lockers, tanks, and similar spaces.* (1) Except as provided in subparagraph (3) of this paragraph, the number of pounds of carbon dioxide required for each space shall be equal to the gross volume of the space divided by the appropriate factor noted in Table 95.15–5(e)(1). If fuel can drain from the compartment being protected to an adjacent compartment, or if the compartments are not entirely separate, the requirements for both compartments shall be used to determine the amount of carbon dioxide to be provided. The carbon dioxide shall be arranged to discharge into both such compartments simultaneously.

TABLE 95.15–5(e)(1)

Gross volume of compartment, cubic feet		Factor
Over—	Not over—	
-----	500	15
500	1,600	16
1,600	4,500	18
4,500	50,000	20
50,000	-----	22

(2) For the purpose of the requirements of this paragraph, the volume of the machinery space shall be taken as exclusive of the normal machinery casing unless the boiler, internal combustion machinery, or fuel oil installation extend into such space, in which case the volume shall be taken to the top of the casing or the next material reduction in casing area, whichever is lower. For installations contracted for on or after October 1, 1959, "normal machinery casing" and "material reduction in casing area" shall be defined as follows:

(i) By "normal machinery casing" shall be meant a casing the area of which is not more than 40 percent of the maximum area of the machinery space.

(ii) By "material reduction in casing area" shall be meant a reduction to at least 40 percent of the casing area.

(3) For vessels on an international voyage contracted for on or after May 26, 1965, the amount of carbon dioxide required for a space containing propulsion boilers or internal combustion propulsion machinery shall be as given by subparagraphs (1) and (2) of this paragraph or by dividing the entire volume, including the casing, by a factor of 25, whichever is the larger.

(4) Branch lines to the various spaces shall be as noted in Table 95.15–5(e)(4).

TABLE 95.15-5(e)(4)

Maximum quantity of carbon dioxide required, pounds	Minimum pipe size, inches	Maximum quantity of carbon dioxide required, pounds	Minimum pipe size, inches
100	½	2,500	2½
225	¾	4,450	3
300	1	7,100	3½
600	1¼	10,450	4
1,000	1½	15,000	4½
2,450	2		

(5) Distribution piping within the space shall be proportioned from the supply line to give proper distribution to the outlets without throttling.

(6) The number, type, and location of discharge outlets shall be such as to give a uniform distribution throughout the space.

(7) The total area of all discharge outlets shall not exceed 85 percent nor be less than 35 percent of the nominal cylinder outlet area or the area of the supply pipe, whichever is smaller. The nominal cylinder outlet area in square inches shall be determined by multiplying the factor 0.0022 by the number of pounds of carbon dioxide required, except that in no case shall this outlet area be less than 0.110 square inches.

(8) The discharge of at least 85 percent of the required amount of carbon dioxide shall be complete within 2 minutes.

Subpart 95.20—Water Spray Extinguishing System, Details [Canceled]

10. Subpart 95.20, consisting of §§ 95.20-1 to 95.20-90, inclusive, is canceled.

Subpart 95.50—Hand Portable Fire Extinguishers and Semiportable Fire Extinguishing Systems; Arrangements and Details

11. Section 95.50-10 is amended by canceling paragraph (e) and by redesignating paragraph (f) as paragraph (e) so that it reads as follows:

§ 95.50-10 Location.

* * * * *

(e) Hand portable or semiportable extinguishers, which are required on their name plates to be protected from freezing, shall not be located where freezing temperatures may be expected.

PART 96—VESSEL CONTROL AND MISCELLANEOUS SYSTEMS AND EQUIPMENT

1. The authority for Part 96 is amended to read as follows:

AUTHORITY: The provisions of this Part 96 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4417, as amended, 4418, as amended, 4426, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 392, 404, 435, 395, 363, 367, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-14, Nov. 26, 1954, 19 F.R. 8026; CGFR 56-28, July 24, 1956, 21 F.R. 5659. Additional authority cited with sections affected.

Subpart 96.30—Protection From Refrigerants

2. The heading for Subpart 96.30 is amended to read "Protection from Refrigerants," as set forth above.

3. Section 96.30-5 is amended to read as follows:

§ 96.30-5 General.

(a) All self-contained breathing apparatus and gas masks shall be of an approved type, constructed in accordance with Subpart 160.011 of Subchapter Q (Specifications) of this chapter.

(b) All equipment shall be maintained in an operative condition, and it shall be the responsibility of the master and chief engineer to ascertain that a sufficient number of the crew are familiar with the operation of the equipment.

§ 96.30-10 [Canceled]

4. Section 96.30-10 *Stowage* is canceled.

5. Section 96.30-15 is amended to read as follows:

§ 96.30-15 Refrigeration masks.

(a) On all vessels equipped with refrigeration, other than small unit type refrigerations of not more than 20 cubic feet capacity, a gas mask, suitable for protection against each refrigerant used, or a self-contained breathing apparatus shall be provided. The refrigeration gas masks shall be stowed convenient to, but outside of the spaces containing the refrigeration equipment.

(b) A complete recharge shall be carried for each gas mask and self-contained breathing apparatus. The spare charge shall be stowed in the same location as the equipment it is to reactivate.

§ 96.30-20 [Canceled]

6. Section 96.30-20 *Spare charges* is canceled. (Text transferred to § 96.30-15(b).)

7. Section 96.30-90(a)(1) is amended to read as follows:

§ 96.30-90 Vessels contracted for prior to November 19, 1952.

(a) * * *

(1) The requirements of §§ 96.30-5 through 96.30-15 shall be complied with insofar as the number of items of equipment and the method of stowage of the equipment is concerned. Existing items of equipment previously approved, but not meeting the applicable specifications set forth in § 96.30-5, may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection, but all new installations or replacements shall meet the applicable specifications or requirements in this subpart.

8. Part 96 is amended by adding after § 96.30-90 a new Subpart 96.35, consisting of §§ 96.35-1 to 96.35-90, reading as follows:

Subpart 96.35—Fireman's Outfit

Sec.

§ 96.35-1 Application.

(a) The provisions of this subpart, with the exception of § 96.35-90, shall apply to all vessels on an international voyage contracted for on or after May 26, 1965. Such vessels contracted for prior to May 26, 1965, shall meet the requirements of § 96.35-90.

§ 96.35-5 General.

(a) All flame safety lamps shall be of an approved type, constructed in accordance with Subpart 160.016 of Subchapter Q (Specifications) of this chapter.

(b) All self-contained breathing apparatus shall be of an approved type, constructed in accordance with Subpart 160.011 of Subchapter Q (Specifications) of this chapter.

(c) All flashlights shall be of an approved 3-cell explosion-proof type, constructed in accordance with Subpart 161.008 of Subchapter Q (Specifications) of this chapter.

(d) All lifelines shall be of steel or bronze wire rope. Steel wire rope shall be either inherently corrosion-resistant, or made so by galvanizing or tinning. Each end shall be fitted with a hook with keeper having throat opening which can be readily slipped over a ⅝-inch bolt. The total length of the lifeline shall be dependent upon the size and arrangement of the vessel, and more than one line may be hooked together to achieve the necessary length. No individual length of lifeline may be less than 50 feet in length. The assembled lifeline shall have a minimum breaking strength of 1,500 pounds.

(e) All equipment shall be maintained in an operative condition, and it shall be the responsibility of the master and chief engineer to ascertain that a sufficient number of the crew are familiar with the operation of the equipment.

§ 96.35-10 Fireman's outfit.

(a) A fireman's outfit shall consist of one self-contained breathing apparatus with lifeline attached, one flashlight, one flame safety lamp, and one fire ax.

(b) Every vessel shall carry at least one fireman's outfit.

§ 96.35-15 Stowage.

(a) Equipment shall be stowed in a convenient, accessible location as determined by the master, for use in case of emergency.

§ 96.35-20 Spare charges.

(a) A complete recharge shall be carried for each self-contained breathing apparatus, and a complete set of spare batteries shall be carried for each flashlight. The spares shall be stowed in the same location as the equipment it is to reactivate.

§ 96.35-90 Vessels contracted for prior to May 26, 1965.

(a) Vessels contracted for prior to May 26, 1965, shall meet the following requirements:

(1) The requirements of §§ 96.35-5 through 96.35-20 shall be complied with insofar as the number of items of equipment and the method of stowage of the equipment is concerned. Existing items of equipment previously approved, but

not meeting the applicable specifications set forth in § 96.35–5, may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection, but all new installations or replacements shall meet the applicable specifications or requirements.

PART 97—OPERATIONS

1. The authority for Part 97 is amended to read as follows:

AUTHORITY: The provisions of this Part 97 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4417, as amended, 4418, as amended, 4426, as amended, 4453, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 392, 404, 435, 395, 363, 367, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; CGFR 56–28, July 24, 1956, 21 F.R. 5659. Additional authority cited with sections affected.

Subpart 97.13—Station Bills

2. Section 97.13–15(b)(1) is amended to read as follows:

§ 97.13–15 Emergency signals.

* * * * *

(b)(1) The fire alarm signal shall be a continuous blast of the whistle for a period of not less than 10 seconds supplemented by the continuous ringing of the general alarm bells for not less than 10 seconds.

Subpart 97.15—Tests, Drills, and Inspections

3. Section 97.15–35(b)(8) is amended to read as follows:

§ 97.15–35 Fire and boat drills.

* * * * *

(b) * * *

(8) The person in charge of each lifeboat and liferaft shall have a list of its crew and shall see that the men under his command are acquainted with their duties.

Subpart 97.37—Markings for Fire and Emergency Equipment, Etc.

4. Section 97.37–37(a) is amended to read as follows:

§ 97.37–37 Lifeboats.

(a) The name of the vessel shall be plainly marked or painted on each side of the bow of each lifeboat in letters not less than 3 inches high. For vessels on an international voyage, the vessel's port of registry shall be added in similar type letters.

5. Section 97.37–40(a) is amended to read as follows:

§ 97.37–40 Liferafts, lifefloats and buoyant apparatus.

(a) Rigid type liferafts, lifefloats, and buoyant apparatus, together with their oars and paddles, shall be conspicuously marked with the vessel's name. For vessels on an international voyage, the vessel's port of registry also shall be similarly marked on lifefloats and buoyant apparatus.

6. Section 97.37–43 is amended by adding a new paragraph (b) reading as follows:

§ 97.37–43 Life preservers and ring life buoys.

* * * * *

(b) For vessels on an international voyage, the vessel's port of registry shall be added in similar type letters on all ring life buoys.

6a. Part 97 is amended by inserting after § 97.37–90 a new Subpart 97.39, consisting of § 97.39–1, reading as follows:

Subpart 97.39—Posting Placards of Instructions for Launching and Inflating Inflatable Liferafts

§ 97.39–1 When required.

(a) Every vessel equipped with inflatable liferafts shall have posted in conspicuous places which are regularly accessible to the crew and/or passengers, approved placards containing instructions for launching and inflating inflatable liferafts for the information of persons on board. The number and location of such placards shall be as determined necessary by the Officer in Charge, Marine Inspection.

(b) Under the requirements contained in § 160.051–6(c)(1) of Subpart 160.051 in Subchapter Q (Specifications) of this chapter, the manufacturer of approved inflatable liferafts is required to provide approved placards containing such instructions with each liferaft.

Subpart 97.43—Placard of Lifesaving Signals and Breeches Buoy Instructions

7. The title for Subpart 97.43 is amended to read "Placard of Lifesaving Signals and Breeches Buoy Instructions," as set forth above.

8. Section 97.43–1(a) is amended to read as follows:

§ 97.43–1 Application.

(a) The provisions of this subpart shall apply to all vessels on an international voyage, and to all other vessels of 150 gross tons or over certificated for ocean, coastwise or Great Lakes service.

9. Section 97.43–5 is amended to read as follows:

§ 97.43–5 Availability.

(a) On all vessels to which this subpart applies there shall be posted in the pilothouse and readily available to the deck officer of the watch a placard (Form CG–811) containing instructions for the use of breeches buoys and the lifesaving signals as set forth in Regulation 16, Chapter V, of the International Convention for Safety of Life at Sea, 1960. These signals shall be used by vessels or persons in distress when communicating with lifesaving stations and maritime rescue units.

(b) A copy of Form CG–811 shall also be conveniently posted in the engineroom and crews quarters of all vessels to which this subpart applies.

PART 98—SPECIAL CONSTRUCTION, ARRANGEMENT, AND PROVISIONS FOR CERTAIN DANGEROUS CARGOES IN BULK

1. The authority for Part 98 is amended to read as follows:

AUTHORITY: The provisions of this Part 98 issued under R.S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U.S.C. 375, 416, 170. Interpret or apply R.S. 4417a, as amended, 4488, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 481, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–38, Oct. 26, 1959, 24 F.R. 8857. Additional authority cited with regulations affected.

Subpart 98.03—Barges Carrying Dangerous Cargoes

§ 98.03–35 [Amended]

2. Section 98.03–35 *Special operating requirements for barges carrying certain dangerous cargoes in bulk* is amended by correcting a phrase in paragraph (f)(2)(ii), first sentence, from "or equipment of machinery breakdown" to "or equipment or machinery breakdown."

Subpart 98.05—Elemental Phosphorus in Water in Bulk

§ 98.05–50 [Amended]

3. Section 98.05–50 *General requirements* is amended by changing in paragraph (f) title from "Commandant (OPL)" to "Commandant (MMT)."

Subpart 98.10—Sulfuric Acid in Bulk

§ 98.10–45 [Amended]

4. Section 98.10–45 *General requirements* is amended by changing in paragraph (f) the title from "Commandant (OPL)" to "Commandant (MMT)."

Subpart 98.15—Hydrochloric Acid in Bulk

§ 98.15–45 [Amended]

5. Section 98.15–45 *General requirements* is amended by changing in paragraphs (f) and (g) the title from "Commandant (OPL)" to "Commandant (MMT)."

Subpart 98.20—Liquid Chlorine in Bulk

6. Section 98.20–15(a) is amended to read as follows:

§ 98.20–15 Markings.

(a) Upon satisfactory completion of tests and inspection, the following markings at least three-eighths inch high shall be stamped into a noncorrodible plate permanently attached to the tank by welding.

(Name and address of fabricator)
---
p.s.i.
(Design pressure)
---
p.s.i.
(Hydrostatic test pressure)
---
p.s.i.
(Maximum allowable pressure)

(Inspector's number, initials and C.G. symbol)

(Manufacturer's serial number)

(Date of manufacture)

U.S. gallons
(Water capacity)

§ 98.20–70 [Amended]

7. Section 98.20–70 *Special operating requirements* is amended by changing in paragraphs (e) and (f) the title from "Commandant (OPL)" to "Commandant (MMT)."

Subpart 98.25—Anhydrous Ammonia in Bulk

8. Section 98.25–15(a) is amended to read as follows:

§ 98.25–15 Markings.

(a) Upon satisfactory completion of tests and inspection, the following marking, at least ⅜ inch high, shall be stamped into a noncorrodible nameplate permanently attached to the tank by means of welding.

(Name and address of fabricator)

---p.s.i.
(Design pressure)

---p.s.i.
(Hydrostatic test pressure)

---p.s.i.
(Maximum allowable pressure)

(CG inspector's number, initials, symbol)

(Manufacturer's serial number)

---U.S. gallons
(Water capacity)

(Date of manufacture)

§ 98.25–90 [Amended]

9. Section 98.25–90 *Special operating requirements* is amended by changing in paragraph (d) the title from "Commandant (OPL)" to "Commandant (MMT)".

§ 98.25–95 [Amended]

10. Section 98.25–95 *Tests and inspections* is amended by changing in paragraph (b), first sentence, the phrase from "allowable pressure" to "maximum allowable pressure."

SUBCHAPTER J—ELECTRICAL ENGINEERING

PART 110—GENERAL PROVISIONS

1. The authority for Part 110 is amended to read as follows:

AUTHORITY: The provisions of this Part 110 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426, as amended, 4427, as amended, 4433, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, sec. 5, 49 Stat. 1384, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404, 405, 411, 435, 481, 489, 366, 395, 363, 369, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 110.05—Application

§ 110.05–1 [Amended]

2. Section 110.05–1 *Vessels subject to the requirements of this subchapter* is amended by revising in paragraph (a)(1) and in footnote 6 in Table 110.05–1(a) in paragraph (a) the title from "International Convention for Safety of Life at Sea, 1948," to "International Convention for Safety of Life at Sea, 1960."

Subpart 110.10—Reference Specifications, Standards, and Codes

3. Section 110.10–1 is amended by adding a new subparagraph (3) to paragraph (c) and by amending paragraph (f), which reads as follows:

§ 110.10–1 General.

* * * * *

(c) * * *

(3) NEMA Standards Publication Motors and Generators (MG1).

* * * * *

(f) Specifications and Guides issued by the U.S. Navy Bureau of Ships, Washington, D.C., 20360, of issue in effect on the date the vessel is contracted for, as listed in this paragraph.

(1) MIL–C–915 Interim Specifications Cable, Cord and Wire, Electrical (shipboard use).

(2) MIL–C–2194 Military Specifications Cable, Power, Electrical, Reduced Diameter Type, Naval Shipboard.

(3) MIL–C–23206 Military Specifications Cable, Special Purpose, Electrical (Nuclear Plant).

(4) NavShips 250–660–23, Cable Comparison Guide.

4. Section 110.10–5(a) is amended to read as follows:

§ 110.10–5 Copies of specifications, standards and codes.

(a) Copies of the specifications, standards, and codes referred to in this subpart may be obtained from the issuing authority except:

(1) Military specifications may be obtained from the Commanding Officer, Naval Supply Depot, 5801 Tabor Avenue, Philadelphia, Pa., 19120.

(2) NavShips 250–660–23 may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402.

Subpart 110.15—Definition of Terms Used in This Subchapter

4a. Section 110.15–105 is amended to read as follows:

§ 110.15–105 International voyage.

(a) The term "international voyage," as used in this subchapter, shall have the same meaning as that contained in Regulation 2(d), Chapter I, of the International Convention for Safety of Life at Sea, 1960; i.e., " 'International voyage' means a voyage from a country to which the present Convention applies to a port outside such country, or conversely; and for this purpose every territory for the international relations of which a Contracting Government is responsible or for which the United Nations are the administering authority is regarded as a separate country."

(b) The International Convention for Safety of Life at Sea, 1960, does not apply to vessels "solely navigating the Great Lakes of North America and the River St. Lawrence as far east as a straight line drawn from Cap de Rosiers to West Point, Anticosti Island and, on the north side of Anticosti Island, the 63d Meridian." Accordingly, such vessels shall not be considered as being on an "international voyage" for the purpose of this subchapter.

(c) For the purpose of this subchapter the term "territory" as used in paragraph (a) of this section shall be considered to include the Commonwealth of Puerto Rico, the Canal Zone, all possessions of the United States, and all lands held by the United States under a protectorate or mandate.

(d) Although voyages between the continental United States and Hawaii or Alaska, and voyages between Hawaii and Alaska are not "international voyages" under the provisions of the International Convention for Safety of Life at Sea, 1960, such voyages are similar in nature and shall be considered as "international voyages" and subject to the same requirements for the purpose of this subchapter.

5. Subpart 110.15 is amended by inserting after § 110.15–125 a new § 110.15–128 reading as follows:

§ 110.15–128 Nuclear vessel.

(a) A nuclear vessel is a vessel provided with a nuclear powerplant for propulsion or any other purpose, or any vessel handling or processing substantial amounts of radioactive material other than as cargo.

Subpart 110.20—Equivalents

6. Section 110.20–1(a) is amended to read as follows:

§ 110.20–1 Conditions under which equivalents may be used.

(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 any particular provision shall be made or arrangement shall be adopted, the Commandant may accept in substitution therefor any other fitting, material, apparatus, or equipment, or type thereof, or any other arrangement: *Provided*, That he shall have been satisfied by suitable trials that the fitting, material, appliance, apparatus, or equipment, or type thereof, or the provision or arrangement is at least as effective as that specified in this subchapter.

PART 111—ELECTRICAL SYSTEM; GENERAL REQUIREMENTS

1. The authority for Part 111 is amended to read as follows:

AUTHORITY: The provisions of this Part 111 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret

or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426, as amended, 4427, as amended, 4433, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, sec. 5, 49 Stat. 1384, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404, 405, 411, 435, 481, 489, 366, 395, 363, 369, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-14, Nov. 26, 1954, 19 F.R. 8026; 167-20, June 18, 1956, 21 F.R. 4894; CGFR 56-28, July 24, 1956, 21 F.R. 5659; 167-38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 111.05—General Requirements

2. Section 111.05–15 is amended by adding a new paragraph (h) reading as follows:

§ 111.05–15 General considerations.

* * * * *

(h) *Limitations of porcelain use.* Porcelain should not be used for lamp sockets, switches, receptacles, fuse blocks, etc., where the material is rigidly fastened by machine screws or the equivalent.

3. Section 111.05–30 is amended to read as follows:

§ 111.05–30 Insulation materials.

(a) *Class designation.* Insulation material referred to in this subchapter is designated by class as described in this section.

(b) *Class O insulation.* Materials or combinations of materials such as cotton, silk, and paper without impregnation.[1]

(c) *Class A insulation.* Materials or combinations of materials consisting of (1) cotton, silk, paper, and similar organic materials when either impregnated [1] or immersed in a liquid dielectric; (2) molded and laminated materials with cellulose filler, phenolic resins, and sheets of cellulose acetate and other cellulose derivatives of similar properties and (3) varnishes (enamels) as applied to conductors. (ASA–C50.)

(d) *Class B insulation.* Materials or combinations of materials such as mica, asbestos, fiberglass, and similar inorganic materials in built-up form with organic binding substances. A small proportion of Class A material may be used for structural purposes only. Fiberglass or asbestos magnetic wire insulation are included in this temperature class. These may include supplementary organic materials, such as polyvinylacetal or polyamide films. (ASA–C50.)

(e) *Class C insulation.* Materials consisting entirely of mica, porcelain, glass, quartz, and similar inorganic materials. (ASA–C50.)

[1] Insulation is considered to be "impregnated" when a suitable substance provides a bond between components of the structure and also a degree of filling and surface coverage sufficient to give adequate performance under the extremes of temperature, surface contamination (moisture, dirt, etc.), and mechanical stress expected in service. The impregnant must not flow or deteriorate enough at operating temperature so as to seriously affect performance in service.

(f) *Class F insulation.* A Class F insulation system is one which by experience or accepted test can be shown to have suitable thermal endurance when operating at the limiting Class F temperature specified in the temperature rise standard for the machine under consideration. Typical materials used in a Class F system include mica, glass fiber, asbestos and other materials, not necessarily inorganic, with compatible bonding substances having suitable thermal stability. (NEMA Publication No. MG1.)

(g) *Class H insulation.* Materials or combinations of materials consisting of (1) mica, asbestos, fiberglass, and similar inorganic materials in built-up form with binding substance composed of silicone compounds, or materials with equivalent properties; (2) silicone compounds in rubbery or resinous forms, or materials with equivalent properties. A minute proportion of Class A material may be used only where essential for structural purposes during manufacture. (ASA–C50.)

Subpart 111.10—Generators

4. Section 111.10–30 is amended by revising Tables 111.10–30(a1) and 111.10–30(a2) to read as follows:

§ 111.10–30 Temperature limitations.

(a) * * *

TABLE 111.10–30 (a1)—LIMITS OF TEMPERATURE RISES FOR DIRECT-CURRENT GENERATORS BASED ON 50° C. AMBIENT TEMPERATURE [1]

Part of generator	Limits of temperature rises—degrees centigrade (measured by thermometer) [2] [3]					
	Class A insulation		Class B insulation		Class H insulation	
	Continuous	At end of 2-hour overload	Continuous	At end of 2-hour overload	Continuous	At end of 2-hour overload
All insulated windings other than items next following	40	55	60	75	80	105
Single-layer field windings with exposed uninsulated surfaces and bare copper windings	50	65	70	85	100	125
Cores and mechanical parts in contact with or adjacent to insulation	40	55	50	75	80	105
Commutator and collector rings	55	65	75	85	95	115
German silver or grid shunts on series field windings	175	----------	175	----------	(4)	----------
Bearings	35	----------	40	----------	(4)	----------

[1] Special consideration shall be given to other parts of the machine such as bearings, etc.
[2] Where other methods are used refer to ASA-C-50 for temperature rise limits.
[3] For Class F insulation refer to NEMA-MG1.

TABLE 111.10–30(a2)—LIMITS OF TEMPERATURE RISES FOR ALTERNATING-CURRENT GENERATORS BASED ON 50° C. AMBIENT TEMPERATURE [1] [2]

Item	Limits of temperature rises, degrees centigrade [3]						
	Determined by—	Salient pole generators			Turbine type generators		
		Class A insulation	Class B insulation	Class H insulation	Class A insulation	Class B insulation	Class H insulation
Armature windings of machines of 1,500 kva. and less.	Thermometer	40	60	100	----------	----------	----------
Armature windings of machines of 750 kva. and less.	....do	----------	----------	----------	40	60	100
Armature windings with 2 coil sides per slot in stators of machines above 1,500 kva.	Imbedded detector	50	70	110	----------	----------	----------
Armature windings with 2 coil sides per slot in stators of machines above 750 kva.	....do	----------	----------	----------	50	70	110
Insulated field windings	Resistance	50	70	110	----------	80	120
Collector rings	Thermometer	55	75	115	55	75	115
Cores and mechanical parts in contact with or adjacent to insulation.	....do	40	60	100	40	60	100
Bearings	....do	35	40	(4)	35	40	(4)

[1] For generators having 25 percent overload rating for 2 hours, the temperature at the end of the overload run when conducted immediately following the continuous run shall not exceed the figures in the table by more than 15° C. except for collector rings which shall be in accordance with the table.
[2] Special consideration shall be given to other parts of the machine such as bearings, etc.
[3] For Class F insulation, refer to NEMA-MG1.

Subpart 111.15—Storage Batteries

5. Section 111.15–1 is amended to read as follows:

§ 111.15–1 General requirements.

(a) *Power and light batteries.* Power and lighting batteries may be of the lead acid or alkaline type, or any other approved type, due consideration being given to suitability for any specific application. The cells shall be constructed so as to prevent spilling of electrolyte due to an inclination of 40° from the normal.

(b) *Emergency and general alarm storage batteries.* When batteries are used for emergency lighting and power loads or for general alarm system loads, the requirements of Part 112 of this subchapter are also applicable.

(c) *Categories.* Batteries shall be classified into three types depending upon power output of the battery charger.

(1) *Large.* Large batteries shall be considered those connected to a battery charger whose output is more than 2 kw. (calculated from the maximum ob-

tainable charging current and the normal voltage of the battery).

(2) *Moderate.* Moderate batteries shall be considered those connected to a battery charger whose output is between 0.2 kw. and 2 kw. (calculated from the maximum obtainable charging current and the normal voltage of the battery).

(3) *Small.* Small size batteries shall be considered those connected to a battery charger whose output is less than 0.2 kw. (calculated from the maximum obtainable charging current and the normal voltage of the battery).

(d) *Nameplates.* Each tray shall be provided with a durable nameplate securely attached, bearing the manufacturer's name or trade mark and type designation, the ampere-hour rating at a specific rate of discharge, and the specific gravity of the electrolyte (for a lead acid battery when fully charged). Data molded on the tray case will be acceptable in lieu of a nameplate.

6. Section 111.15–5 is amended to read as follows:

§ 111.15–5 Battery installation.

(a) *Large storage batteries.* Large batteries should be installed in a room assigned to batteries only, but may be installed in a box on deck if a room is not available. Lighting equipment installed in a battery room shall be explosion proof suitable for Class I, Group D, locations. Devices liable to arc, such as switches, battery chargers, etc. shall not be installed in battery rooms. The overload protective device required by § 111.15–25 should be placed in each conductor adjacent to but outside the room. Electric cables other than those serving the battery or battery room lighting should be routed around rather than through the battery room.

(1) A "danger notice" shall be permanently secured to the doors of the battery room or to the covers of battery deck boxes indicating that a naked light or smoking in these rooms or in this vicinity is prohibited.

(b) *Batteries of moderate size.* Batteries of moderate size as described in § 111.15–1(c)(2) should preferably be installed in a battery room or in a box on deck, but may also be installed in a box or locker in some suitable space such as an engineroom, storeroom, etc., or may be installed open if protected from above from falling objects in the engineroom or in a similar well-ventilated compartment. Batteries should not be installed in sleeping spaces. Engine cranking batteries should be located as closely as possible to the engine or engines served.

(c) *Batteries of small size.* Batteries of small size as described in § 111.15–1(c)(3) may be installed in such places as open working spaces and boat engine compartments provided that the space is ventilated.

7. Subpart 111.15 is amended by inserting after § 111.15–5 a new § 111.15–6 reading as follows:

§ 111.15–6 Arrangement.

(a) *Battery trays.* Battery trays should be chocked with wood strips or equivalent to prevent movement and each tray should be fitted with nonabsorbent insulating supports on the bottom and with similar spacer blocks at the sides or with equivalent provisions to secure air circulation space all around each tray. Battery trays should be so arranged that the trays are accessible and with not less than 10 inches head room.

(b) *Tiers.* When batteries are arranged in two or more tiers, all shelves should have not less than 2 inches space front and back for circulation of air.

8. Section 111.15–10 is amended to read as follows:

§ 111.15–10 Ventilation.

(a) *General.* All rooms, lockers, and boxes for storage batteries should be arranged or ventilated to avoid accumulation of flammable gas.

(b) *Battery rooms.* Natural ventilation may be employed if ducts can be run directly from the top of the room to the open air above with no part of the duct more than 45° from the vertical. These ducts should not contain appliances (e.g., flame arrestors) which may impede the free passage of air or gas mixtures. Rooms containing large battery banks as defined in § 111.15–1(c)(1) shall be ventilated by mechanical exhaust. When mechanical exhaust is required, the system shall be separate from ventilation systems for other spaces, and, if electric, the motor shall be located outside the battery room. Mechanical ventilation systems shall be interlocked with the battery charger so that the battery cannot be charged without ventilation. Adequate openings, whether connected to ducts or not, for air inlet shall be provided near the floor or the bottom of lockers or boxes. In every case the quantity of the air expelled should be at least equal to:

$$(q=3.89in) \qquad (1)$$

where:

q = quantity of expelled air in cubic feet per hour.

i = maximum charging current during gas formation, however at least one-fourth of the maximum obtainable charging current of the charging facility.

n = number of cells.

(c) *Battery lockers.* Battery lockers should be ventilated, if practicable, similarly to battery rooms by a duct led from the top of the locker to the open air or to an exhaust ventilation duct, but the duct may terminate not less than 3 feet above the top of the locker in machinery spaces and similar well-ventilated compartments. Louvers or equivalent should be provided near the bottom for entrance of air.

(d) *Deck boxes.* Deck boxes should be provided with a duct from the top of the box terminating at least 4 feet above in a gooseneck, mushroom head, or equivalent to prevent entrance of water. Holes for air inlet should be provided on at least two opposite sides of the box. The entire deck box, including openings for ventilation, should be weathertight to prevent entrance of spray or rain.

(e) *Boxes for small batteries.* Boxes for small batteries require no ventilation other than openings near the top to permit escape of gas.

9. Section 111.15–15 is amended to read as follows:

§ 111.15–15 Protection from corrosion.

(a) Shelves in battery rooms or lockers for acid batteries should have a watertight lining of sheet lead of 1/16-inch thickness carried up not less than 3 inches on all sides. For alkaline batteries the shelves should be similarly lined with steel not less than 1/32-inch thick. Alternatively, a battery room may be fitted with a watertight lead pan for acid batteries, steel for alkaline batteries, over the entire deck, carried up not less than 6 inches on all sides. Deck boxes should be lined in accordance with the above alternative method. Boxes for small batteries should be lined to a depth of 3 inches consistent with the methods described above.

(b) Alternate lining materials may be used in lieu of lead or steel if it can be established that the material is corrosion-resistant to the specified electrolyte used in the batteries.

Subpart 111.25—Motors

10. Section 111.25–10(a) is amended by revising Tables 111.25–10(a1) and 111.25–10(a2) to read as follows:

§ 111.25–10 Temperature limitations.

(a) * * *

TABLE 111.25–10(a1)—LIMITS OF TEMPERATURE RISES FOR DIRECT-CURRENT MOTORS[1]

Part of motor and type of enclosure	Limits of temperature rises; degrees centigrade (thermometer method)[2][3]					
	Class A insulation		Class B insulation		Class H insulation	
	40° C. ambient temperature	50° C. ambient temperature	40° C. ambient temperature	50° C. ambient temperature	40° C. ambient temperature	50° C. ambient temperature
All insulated windings other than item next following:						
Open and semienclosed	50	40	70	60	110	100
Totally enclosed	55	45	75	65	115	105
Single-layer field windings with exposed uninsulated surfaces and bare copper windings:						
Open and semienclosed	60	50	80	70	180	120
Totally enclosed	65	55	85	75	135	125
Cores and mechanical parts in contact with or adjacent to insulation:						
Open and semienclosed	50	40	70	60	110	100
Totally enclosed	55	45	75	65		
Commutators and collector rings:						
All types	65	55	85	75	125	115
Bearings:						
Open and semienclosed	40	35	45	40	(4)	(4)
Totally enclosed	45	40	50	45	(4)	(4)

[1] Special consideration shall be given to other parts of the machine, such as bearings, etc.
[2] Where other methods are used refer to ASA–C–50 for temperature rise limits.
[3] For Class F insulation refer to NEMA–MG1.

TABLE 111.25-10(a2)—LIMITS OF TEMPERATURE RISES FOR ALTERNATING-CURRENT MOTORS [1] [2]

Part of motor and type of enclosure	Limits of temperature rises; degrees centigrade (thermometer method) [3] [4]					
	Class A insulation		Class B insulation		Class H insulation	
	40° C. ambient temperature	50° C. ambient temperature	40° C. ambient temperature	50° C. ambient temperature	40° C. ambient temperature	50° C. ambient temperature
Coil windings, cores and mechanical parts in contact with, or adjacent to insulation:						
All except totally enclosed	50	40	70	60	110	100
Totally enclosed	55	45	75	65	115	105
Collector rings, commutaters (the class of insulation refers to insulation affected by the heat from the commutator or collector rings, which insulation is employed in the construction of the commutator or collector rings or is adjacent thereto):						
All types	65	55	85	75	125	115
Bearings:						
Open and semienclosed	40	35	45	40	(5)	(5)
Totally enclosed	45	40	50	45	(5)	(5)

[1] Squirrel-cage windings and mechanical parts not in contact with or adjacent to insulation may reach such temperatures as will not be injurious in any respect.
[2] Special consideration shall be given to other parts of the machine, such as bearings, etc.
[3] Where other methods are used refer to ASA-C-50 for temperature rise limits.
[4] For Class F insulation refer to NEMA-MG1.

Subpart 111.55—Overcurrent Protection

11. Section 111.55-1(g) is amended to read as follows:

§ 111.55-1 Installation of overcurrent devices.

* * * * *

(g) *Protection of ship's service generators*—(1) *General.* Each generator of 25 kw. and over, and each generator regardless of size if arranged for parallel operation shall be protected by an individual trip-free air circuit breaker having inverse time overcurrent trips. The pickup setting of the long time overcurrent trip of the circuit breaker shall not exceed 115 percent of the generator rating for continuous rated machines and shall not exceed 15 percent above the overload rating for special rated machines. Each generator of less than 25 kw. not arranged for parallel operation may be protected by individual fuses in lieu of an individual circuit breaker.

(2) *Alternating current generators.* Where three or more generators are arranged for parallel operation, the circuit breakers shall have, in addition to inverse time trips, instantaneous trips set at a value in excess of the maximum asymmetrical short circuit current available from the associated generator. In order to provide the optimum degree of protection for generators, the short time trips shall be set at the lowest values of current and time which will coordinate with the trip settings of feeder circuit breakers supplied by the generator to provide the continuity of service and high speed clearance specified in § 111.55-25.

(3) *Direct current generators.* In addition to the inverse time overcurrent trips, direct current generator circuit breakers shall be provided with an instantaneous trip set at the lowest value of current which will coordinate with the trip settings of feeder circuit breakers supplied by the generator to provide the continuity of service and high speed clearance specified in § 111.55-25.

(4) *Generator circuits for parallel operation.* Each direct-current generator arranged for parallel operaton shall be provided with a reverse current device. Each alternating-current generator arranged for parallel operation shall be provided with a reverse power relay.

12. Section 111.55-15(d) is amended to read as follows:

§ 111.55-15 Construction and use of overcurrent devices.

* * * * *

(d) *Construction and marking of fuses.* Fuses shall be constructed in accordance with Underwriters' Laboratories, Inc., Standard for Fuses. Standard cartridge fuses shall be marked with the label of Underwriters' Laboratories, Inc. Special cartridge fuses shall be inspected under Underwriters' Laboratories, Inc., reexamination service.

Subpart 111.60—Wiring Methods and Materials

13. Section 111.60-1 is amended by adding new paragraphs (h) and (i) reading as follows:

§ 111.60-1 Electric cable.

* * * * *

(h) *Substitute cable.* Electric cable constructed in accordance with Military Specifications MIL-C-915 or MIL-C-2194 may be substituted for the equivalent AIEE type cable specified in this section. The maximum current for any conductor shall not exceed the current-carrying capacities specified in the publication "Cable Comparison Guide," NavShips 250-660-23.

(i) *Special purpose cable*—(1) *Instrumentation cable.* Electric cable constructed in accordance with Military Specifications MIL-C-915, MIL-C-2194 or MIL-C-23206 of the types TTHFWA, TTRSA, PI, 1SWA, 2SWA, 3SWA, may be used for instrumentation circuits to connect such items as indicator lights, sensors, selector switches, and pushbuttons where the voltage of the circuit does not exceed 100 volts. The maximum current for any conductor shall not exceed the current-carrying capacities specified in the publication "Cable Comparison Guide," NavShips 250-660-23.

(2) *Thermocouple cable.* Electric cable constructed in accordance with Military Specification MIL-C-915 of the types PBJX, PBTM and PBTX may be used as conductors between thermocouple sensors and their registering equipment.

(3) *Other types of cable.* Other types of cable will be given special consideration by the Commandant where the cable does not penetrate a watertight bulkhead and is suitably protected from mechanical damage.

14. Section 111.60-30 is amended by revising paragraphs (a) and (h) to read as follows:

§ 111.60-30 Receptacle outlets and attachment plugs.

(a) Receptable outlets and attachment plugs for the attachment of portable lamps, tools, and similar apparatus supplied as ship's equipment and operating at 100 volts or more, shall provide a grounding pole and a grounding conductor in the portable cord to ground the dead metal parts of the portable apparatus. For portable devices made entirely of non-conducting material or so constructed that dead metal parts will not become energized under any conditions, the grounding conductor in the portable cord and the grounding pole of the attachment plug need not be furnished. Portable apparatus shall be deemed to be any apparatus served by means of a flexible extension cord, whether the apparatus is permanently mounted or not.

* * * * *

(h) When it is necessary to transmit current in one direction between two receptacle outlets by means of a portable cable with a plug on each end (such as a battery charging lead between a receptacle outlet on a ship and a receptacle outlet in a lifeboat), the plug which may be energized when not inserted in the receptacle outlet, shall be of the female type. When receptacle outlets may be used as a source of power as well as to receive power (such as the receptacles on barges that may have to supply power to adjoining barges in some make-ups and receive power from the towboat or adjoining barge in other make-ups) the receptacles shall be of the male, reverse service type. Plugs of associated portable cable shall be of the female type and shall be provided at both ends of the portable lead. The female type plug specified in this paragraph shall comply with the requirements of paragraph (g) of this section.

15. Section 111.60-35 is amended to read as follows:

§ 111.60-35 Lighting fixtures.

(a) *General requirements.* (1) Construction details shall be in accordance with Underwriters' Laboratories, Inc., Standard for Marine Type Electric Lighting Fixtures Subject 595.

(2) Open arc lamps shall not be used for applications other than for search-

lights and for motion picture projectors.

(3) Fixture globes shall be protected by guards except in living quarters, wheelhouse, gyro room, radio room, galley, and similar spaces where not subject to mechanical damage.

(4) Fixtures shall be of such construction, or so installed, that the conductors in outlet boxes will not be subjected to temperatures greater than that for which the conductors are approved (75° C. for rubber insulated conductors, 85° C. for varnished-cambric insulated and mineral-insulated conductors, 95° C. for asbestos - varnished-cambric insulated conductors, and 105° C. for MIL–C–2194 type SGA cable). For the purpose of this section, an ambient temperature of 25° C. will be assumed for passenger and crew quarters, public spaces, cargo spaces, and open deck areas, an ambient temperature of 40° C. will be assumed for auxiliary machinery and work spaces, and an ambient temperature of 50° C. will be assumed for the engine and boiler rooms.

(5) Fixtures shall be so constructed, or installed, or equipped with shades and/or guards that combustible material will not be subjected to temperatures in excess of 90° C.

(6) Fixtures shall not be used as connection boxes for circuits other than the branch circuit supplying the fixture except that two or more circuits may supply the fixture when:

(i) One or more lamps of a multilamp fixture are supplied from an emergency lighting circuit; or

(ii) When the number of lamps of a fixture exceeds the capacity of a single circuit. When more than one circuit is employed in a fixture, the circuits shall be as widely separated as possible and the different circuits clearly identified at terminal points. Also see § 111.50–20 (c) (5.

(7) For wiring of explosion-proof equipment see § 111.60–40.

(b) *Lighting fixture installations.* (1) Fixtures installed in locations exposed to the weather and in other locations occasionally exposed to splashing water shall be of watertight construction. Fixtures installed in other wet or damp locations shall be of at least dripproof construction as installed.

(2) Any combustible bulkhead or ceiling finish exposed between the edge of a fixture canopy or pan and the outlet box shall be covered with noncombustible material.

(3) In a completed installation, each outlet box shall be provided with a cover unless it is covered by means of a fixture canopy, lampholder, or similar device.

(4) Fixtures, lampholders, and receptacle outlets shall be securely supported. Fixtures shall not be supported by the screw shell of a lampholder.

(5) Pendent fixtures shall be suspended by, and supplied through threaded rigid conduit stems.

(6) Table lamps, desk lamps, floor lamps, and similar equipment shall be secured in place to prevent displacement by the roll or pitch of the vessel.

(c) Grounding of lighting equipment. (1) Lighting equipment (including fixtures) shall be grounded.

(2) Equipment shall be considered as grounded when mechanically connected in a permanent and effective manner to the metal structure of the ship, the armor of armored cable, or a grounding connector.

PART 112—EMERGENCY LIGHTING AND POWER SYSTEM

1. The authority for Part 112 is amended to read as follows:

AUTHORITY: The provisions of this Part 112 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426, as amended, 4427, as amended, 4433, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, sec. 5, 49 Stat. 1384, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404, 405, 411, 435, 481, 489, 366, 395, 363, 369, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 112.05—General Requirements

2. Section 112.05–5 is amended by revising Table 112.05–5(a) to read as follows:

§ 112.05–5 Emergency source of supply.

(a) * * *

TABLE 112.05–5(a)

Size of vessel and service	Type or types of emergency source of power	Period of operation and minimum capacity of emergency source of power
Passenger vessels over 65 feet in length		
Ocean and Coastwise, 1,600 g.t. and over, and any passenger vessel, regardless of tonnage or service, where electric power-operated watertight doors are required.	Storage battery with automatic transfer gear for temporary source, and supplemented by diesel generator with automatic starting and transfer gear for final source.	½ hour. 36 hours.
Ocean and Coastwise, over 15 g.t. but less than 1,600 g.t.[1]	Storage battery with automatic transfer gear or diesel generator with automatic starting and transfer gear.	36 hours or twice the time of run, whichever is the smaller.
Other than Ocean and Coastwise, 100 g.t. and over.[1]	Storage battery with automatic transfer gear or diesel generator with automatic starting and transfer gear.	8 hours or twice the time of run, whichever is the smaller.
Other than Ocean and Coastwise, over 15 g.t. but less than 100 g.t.[1]	Storage battery or diesel generator with automatic or manual operation.[2]	8 hours or twice the time of run, whichever is the smaller.
Cargo and miscellaneous self-propelled vessels and tank ships; barges with sleeping accommodations for more than 6 persons.[3]		
All waters, 1,600 g.t. and over.	Storage battery or diesel generator automatic or manual operation.	12 hours.
All waters, 300 g.t. and over, but less than 1,600 g.t.	Storage battery or diesel generator, automatic or manual operation, or approved relay-controlled battery-operated lanterns.[5]	12 hours or twice the time of run, whichever is the smaller.[4]

[1] See also § 112.05–15.
[2] See also §§ 112.35–1 and 112.35–5.
[3] Applicable to barges contracted for on or after November 19, 1958.
[4] Minimum period of operation of relay-controlled, battery-operated lanterns may be less than 12 hours but not less than 6 hours.
[5] Battary-opertaed lanterns shall have rechargeable batteries, shall incorporate an automatic battery charger that will maintain the battery in a fully charged condition, and shall not be readily portable.

3. Section 112.05–10(a) is amended to read as follows:

§ 112.05–10 Emergency lights.

(a) Emergency lights supplied by an automatic emergency lighting system shall form a part of the regular lighting system, and shall be continuously lighted at all times passengers or crew are aboard, except as provided by paragraph (b) of this section and § 112.05–15(c), and except when the emergency lights consist of relay-controlled battery-operated lanterns. (See footnote 5 in Table 112.05–5(a).)

PART 113—COMMUNICATION AND ALARM SYSTEMS AND EQUIPMENT

1. The authority for Part 113 is amended to read as follows:

AUTHORITY: The provisions of this Part 113 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4399, as amended, 4400, as amended, 4417, as amended, 4417a, as amended, 4418, as amended, 4421, as amended, 4426, as amended, 4427, as amended, 4433, as amended, 4453, as amended, 4488, as amended, 4491, as amended, sec. 14, 29 Stat. 690, as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. 305, as amended, sec. 5, 49 Stat. 1384, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 361, 362, 391, 391a, 392, 399, 404, 405, 411, 435, 481, 489, 366, 395, 363, 369, 367, 526p, 1333, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 113.30—Sound Powered Telephone and Voice Tube Systems

2. Section 113.30–5 is amended by adding a new paragraph (g) reading as follows:

§ 113.30–5 General requirements.

* * * * *

(g) An efficient means of communication shall be provided between the wheelhouse and the bow or forward lookout station. This communication need not be by means of sound powered telephone