[Notice 44]

FINANCE APPLICATIONS

SEPTEMBER 2, 1965.

The following publications are governed by the Interstate Commerce Commission's General Requirements governing notice of filing of applications under sections 20a except (12) and 214 of the Interstate Commerce Act. The Commission's order of May 20, 1964, providing for such publication of notice, was published in the FEDERAL REGISTER issue of July 31, 1964 (29 F.R. 11126), and became effective October 1, 1964.

All hearings and prehearing conferences, if any, will be called at 9:30 a.m., U.S. standard time unless otherwise specified.

F.D. No. 23788—By application filed August 19, 1965, River Falls Railway Co., Inc., 512 West Wisconsin Avenue, Pewaukee, Wis., 53072, seeks authority under section 20a of the Interstate Commerce Act to issue 1000 shares common stock, the value of each share to be ultimately determined by dividing the total amount invested by 1000 on a 1-vote-per-share basis. Address correspondence to: Clinton Jones, Jr., President and General Manager, River Falls Railway, 512 West Wisconsin Avenue, Pewaukee, Wis., 53072. Protests must be filed no later than 15 days from date of publication in the FEDERAL REGISTER.

F.D. No. 23791—By application filed August 30, 1965, Associated Transport, Inc., 380 Madison Avenue, New York 17, N.Y., seeks authority under section 214 of the Interstate Commerce Act to issue not to exceed 765,864 shares of its No-Par-Value common stock to effectuate a two-for-one stock split of its No-Par-Value common stock in the form of a 100 percent stock dividend. Applicant's attorney: Jack R. Turney, Jr., Turney, Major, Markham & Sherfy, 2001 Massachusetts Avenue NW., Washington, D.C., 20036. Protests must be filed no later than 15 days from date of publication in the FEDERAL REGISTER.

F.D. No. 23792—By application filed August 30, 1965, Tennessee, Alabama & Georgia Railway Co., Siskin Transportation Building, 1478 Market Street, Post Office Box 6508, Station "B", Chattanooga, Tenn., 37408, seeks authority to assume indebtedness through short-term loans exceeding 5 percent of the par value of securities of applicant now outstanding but not to exceed an aggregate amount of $100,000. Applicant's attorney: Albert L. Hodge, Chambliss, Chambliss & Hodge, 1111 Maclellan Building, 721 Broad Street, Chattanooga, Tenn., 37402. Protests must be filed not later than 15 days from date of publication in the FEDERAL REGISTER.

F.D. No. 23793—By application filed August 30, 1965, Redwing Carriers, Inc., Post Office Box 426, Tampa, Fla., 33601, seeks authority to issue: (1) 23,000 additional shares of common capital stock, par value $1.25 each; and (2) a promissory note for up to $1,000,000, payable in quarterly installments in each of 5 years, bearing interest at the rate of not exceeding 4¾ percent per annum. Applicant's attorney: James A. Harkins, Post Office Box 426, Tampa, Fla., 33601. Protests must be filed no later than 15 days from date of publication in the FEDERAL REGISTER.

By the Commission.

[SEAL] H. NEIL GARSON, *Secretary.*

[F.R. Doc. 65-9447; Filed, Sept. 7, 1965; 8:51 a.m.]

[Notice 41]

MOTOR CARRIER TEMPORARY AUTHORITY APPLICATIONS

SEPTEMBER 2, 1965.

The following are notices of filing of applications for temporary authority under section 210a(a) of the Interstate Commerce Act provided for under the new rules in Ex Parte No. MC 67 (49 CFR Part 240), published in the FEDERAL REGISTER, issue of April 27, 1965, effective July 1, 1965. These rules provide that protests to the granting of an application must be filed with the field official named in the FEDERAL REGISTER publication, within 15 calendar days after the date notice of the filing of the application is published in the FEDERAL REGISTER. One copy of such protests must be served on the applicant, or its authorized representative, if any, and the protests must certify that such service has been made. The protest must be specific as the service which such protestant can and will offer, and must consist of a signed original and six (6) copies.

A copy of the application is on file, and can be examined, at the Office of the Secretary, Interstate Commerce Commission, Washington, D.C., and also in the field office to which protests are to be transmitted.

MOTOR CARRIERS OF PROPERTY

No. MC 30605 (Sub-No. 137 TA), filed September 1, 1965. Applicant: SANTA FE TRAIL TRANSPORTATION COMPANY, 433 East Waterman, Post Office Box 56, Wichita, Kans. Applicant's representative: C. F. Offenstein (same address as applicant). Authority sought to operate at as *common carrier*, by motor vehicle, over regular routes, transporting: *General commodities* (except commodities of unusual value, household goods as defined by the Commission, commodities in bulk, and those requiring special equipment), serving the plantsite of Greenwood Helium Plant, located in Morton County, Kans., approximately 12 miles north and 7 miles west of Elkhart, Kans., as an off-route point in connection with applicant's regular route-operations, for 180 days. Supporting shipper: Phillips Petroleum Co., Bartlesville, Okla., 74004. Send protests to: M. E. Taylor, District Supervisor, Bureau of Operations and Compliance, Interstate Commerce Commission, 906 Schweiter Building, Wichita, Kans., 67202.

No. MC 94350 (Sub-No. 147 TA), filed September 1, 1965. Applicant: TRANSIT HOMES, INC., 210 West McBee Avenue, Transit Homes Building, Post Office Box 1628, Greenville, S.C. Applicant's representative: Henry P. Willimon, Post Office Box 1075, Greenville, S.C. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Trailers*, designed to be drawn by passenger automobiles, from Haleyville, Ala., to points in Louisiana, Mississippi, Alabama, Georgia, South Carolina, Florida, North Carolina, Tennessee, Virginia, Kentucky, West Virginia, and Maryland, for 180 days. Supporting shipper: Schevelle Mobile Homes, Inc., Haleyville, Ala. Attention: William Glascock. Send protests to: Arthur B. Abercrombie, District Supervisor, Bureau of Operations and Compliance, Interstate Commerce Commission, 509 Federal Building, 901 Sumter Street, Columbia, S.C., 29201.

No. MC 94350 (Sub-No. 148 TA), filed September 1, 1965. Applicant: TRANSIT HOMES, INC., 210 West McBee Avenue, Transit Homes Building, Post Office Box 1628, Greenville, S.C. Applicant's representative: Henry P. Willimon, Post Office Box 1075, Greenville, S.C. Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Trailers*, designed to be drawn by passenger automobiles, from Milledgeville, Ga., to points in Alabama, Mississippi, Tennessee, Florida, North Carolina, South Carolina, Virginia, and Louisiana, for 180 days. Supporting shipper: American Coach Co., Milledgeville, Ga. Attention: Cecil S. Ward, Sales Manager. Send protests to: Arthur B. Abercrombie, District Supervisor, Bureau of Operations and Compliance, Interstate Commerce Commission, 509 Federal Building, 901 Sumter Street, Columbia, S.C., 29201.

No. MC 102616 (Sub-No. 771 TA), filed September 1, 1965. Applicant: COASTAL TANK LINES, INC., 501 Grantley Road, York, Pa. Applicant's representative: Samuel E. Smith (same address as applicant). Authority sought to operate as a *common carrier*, by motor vehicle, over irregular routes, transporting: *Petroleum lubricating oil*, in bulk, in tank vehicles, from Pittsburgh, Pa., to Huntington, W. Va., for 180 days. Supporting shipper: Humble Oil & Refining Co., Broad and Hamilton Street, Richmond, Va., 23230. Send protests to: Robert W. Ritenour, District Supervisor, Bureau of Operations and Compliance, Interstate Commerce Commission, 218 Central Industrial Building, 100 North Cameron Street, Harrisburg, Pa.

No. MC 116419 (Sub-No. 3 TA), filed September 1, 1965. Applicant: ALBERT CAPONE TRUCKING, INC., 233 India Street, Brooklyn, N.Y. Applicant's representative: Charles H. Trayford, 220 East 42d Street, New York 17, N.Y. Authority sought to operate as a *contract carrier*, by motor vehicle, over irregular routes, transporting: *Record changer machines, parts of and speakers for record changer machines, and solder*, between points in the New York, N.Y., commercial zone, as defined by the Commission, on the one hand, and, on the other, Plainville and Westbury, N.Y., limited to traffic moving in foreign commerce through the Port of New York, for 180 days. Supporting shipper: British Industries Corp., Westbury, N.Y. Send protests to: Robert E. Johnston, District Supervisor, Bureau of Operations and Compliance, Interstate Commerce Com-

mission, 346 Broadway, New York, N.Y., 10013.

By the Commission.

[SEAL] H. NEIL GARSON, *Secretary.*

[F.R. Doc. 65-9448; Filed, Sept. 7, 1965; 8:51 a.m.]

[Notice 1229]

MOTOR CARRIER TRANSFER PROCEEDINGS

SEPTEMBER 2, 1965.

Synopses of orders entered pursuant to section 212(b) of the Interstate Commerce Act, and rules and regulations prescribed thereunder (49 CFR Part 179), appear below:

As provided in the Commission's special rules of practice any interested person may file a petition seeking reconsideration of the following numbered proceedings within 20 days from the date of publication of this notice. Pursuant to section 17(8) of the Interstate Commerce Act, the filing of such a petition will postpone the effective date of the order in that proceeding pending its disposition. The matters relied upon by petitioners must be specified in their petitions with particularity.

No. MC-FC-68023. By order of August 31, 1965, the Transfer Board approved the transfer of Certificate of Registration No. MC-121450 (Sub-No. 1) to McComas Truck Lines, Inc., Union City, Okla., originally issued January 31, 1964, to Doran R. McComas, Union City, Okla. evidencing a right to engage in interstate or foreign commerce, in the transportation of freight, between specified points, and as restricted, in Oklahoma. C. O. Hunt, 1504 South Midwest Boulevard, Midwest City, Okla., attorney for applicants.

No. MC-FC-68072. By order of August 31, 1965, the Transfer Board approved the transfer to Dorothy H. Loughman, doing business as Waynesburg-Pittsburgh Local Express, Waynesburg, Pa., of the operating rights issued by the Commission May 23, 1941, and September 3, 1946, under Certificates Nos. MC-19000 and MC-19000 (Sub-No. 2), respectively, to Dennis J. Loughman, doing business as Waynesburg-Pittsburgh Local Express, Waynesburg, Pa., authorizing the transportation, over regular routes of general commodities, with specified exceptions, between Waynesburg, Pa., and Washington, Pa.; between Waynesburg, Pa., and Brownville, Pa.; between Waynesburg, Pa., and Point Marion, Pa.; between Carmichaels, Pa., and Uniontown, Pa.; household goods, and machinery, materials, supplies, and equipment, incidental to or used in, the construction, development, operation and maintenance of facilities for the discovery, development and production of natural gas and petroleum, between points in Greene County, Pa., on the one hand, and, on the other, points in New Jersey, Maryland, New York, West Virginia, Virginia, Ohio, and the District of Columbia; and general commodities, with exceptions, between Pittsburgh, Pa., and Waynesburg, Pa. Lloyd E. Pollock, Pollock, Pollock & Thomas, Waynesburg, Pa., attorneys for applicants.

No. MC-FC-68083. By order of August 31, 1965, the Transfer Board approved the transfer to Russell Kempt, doing business as Kempt Truck Lines, 2921 East 16th Street, Joplin, Mo., of the operating rights in Permit No. MC-117568, issued January 8, 1965, to Tam Fertilizer Carriers, Inc., Corning, Ark., authorizing the transportation, over irregular routes, of fertilizer, and fertilizer materials and compounds, except in bulk, in tank vehicles, ammonium nitrate, ammonium sulphate, phosphates, mixed fertilizers, and nitrate of soda, in bulk, except in bulk, in tank vehicles, potash, except in bulk, in tank vehicles, ammonium sulphate, except in bulk, in tank vehicles, ammonium sulphate, in bulk, except in bulk, in tank vehicles, nitrate of soda, except in bulk, in tank vehicles, agricultural insecticides, except in bulk, in tank vehicles, from and to specified points in Arkansas, Illinois, Tennessee, Mississippi, Louisiana, Texas, New Mexico, Kentucky, and Missouri, varying with the commodities indicated.

No. MC-FC-68091. By order of August 31, 1965, the Transfer Board approved the transfer to Frank Cosgrove Transportation Corp., Medford, Mass., of the operating rights issued by the Commission April 12, 1965, under Certificate in No. MC-87523, to Frank Cosgrove Transportation Co., Inc., Medford, Mass., authorizing the transportation, over regular routes, of general commodities, excluding household goods, and other specified commodities, between Boston, Mass., and Derby, Vt., serving the intermediate point of Newport, Vt.; over irregular routes, casein, from Colebrook, N.H., and points in Vermont to Bainbridge, N.Y.; and empty casein containers, and supplies, and equipment used in the manufacture of casein, from Bainbridge, N.Y., to Colebrook, N.H., and points in Vermont; milk, cream, and products thereof, except casein, from Enosburg Falls, East Berkshire, Morrisville, and Troy, Vt., to Boston, Somerville, Lowell, Mansfield, Cambridge, Andover, and Everett, Mass.; and empty containers, for milk, cream, and products thereof, from Boston, Somerville, Lowell, Mansfield, Cambridge, Andover, and Everett, Mass., to Enosburg Falls, East Berkshire, Morrisville, and Troy, Vt.; milk and cream, and products of milk and cream, as specified, from Abingdon and South Boston, Va., Greeneville and Readyville, Tenn., Litchfield, Ill., and points in Indiana, Ohio, Michigan, and those in that part of New York north of Sullivan, Dutchess, and Ulster Counties, N.Y., to Portland and Bangor, Maine, Manchester, N.H., and points in Massachusetts, Connecticut, Rhode Island, and those in that part of New York north of Sullivan, Dutchess, and Ulster Counties, N.Y.; and empty containers used in the transportation of milk and cream and products thereof, from the above-specified destination points, to the above-specified origin points; milk and milk products in tank-type vehicle containers, from Somerville, Mass., to points in Massachusetts, Connecticut, and Rhode Island; and empty containers for milk and milk products, from points in Massachusetts, Connecticut, and Rhode Island to Somerville, Mass.; milk and milk products in bulk, in tank vehicles, between points in that part of New York north of Sullivan, Ulster, and Dutchess Counties, N.Y., on the one hand, and, on the other, points in Vermont, New Hampshire (except Manchester, N.H.), and Maine (except Portland and Bangor, Maine); milk and milk products, except butter and cheese, and empty containers, between points in Maine, Vermont, and New Hampshire, on the one hand, and, on the other, points in Connecticut, Massachusetts, and Rhode Island; and soap, acids, chemicals, oil, and grease, in containers, from Providence and East Providence, R.I., to points in Massachusetts and Connecticut. Leonard A. Jaskiewicz, 1155 15th Street NW., Washington, D.C., attorney for applicants.

No. MC-FC-68093. By order of August 31, 1965, the Transfer Board approved the transfer of Parker Refrigerated Service, Inc., Tacoma, Wash., of the operating rights issued by the Commission January 8, 1951, and February 10, 1961, under Certificates Nos. MC-112014 (Sub-No. 1), and MC-112014 (Sub-No. 2), respectively, to Skagit Valley Trucking Co., Inc., Mount Vernon, Wash., authorizing the transportation of dehydrated cereal grass, over irregular routes, from points in Skagit County, Wash., to the boundary of the United States and Canada near the ports of entry of Blaine and Sumas, Wash.; and frozen berries and frozen vegetables, from Burlington, Wash., to Portland, Oreg. Joseph O. Earp, 411 Lyon Building, 607 3d Avenue, Seattle, Wash., representative for Applicants.

No. MC-FC-68108. By order of August 31, 1965, the Transfer Board approved the transfer to Auto Fast Freight, Inc., San Bernardino, Calif., of the operating rights of Luciano Giudice, Charlotte Giudice, Charles Traina, and John Traina, a partnership, doing business as Auto Fast Freight, San Bernardino, Calif., in Corrected Certificate of Registration, issued September 24, 1964, authorizing the transportation, of general commodities, subject to specified conditions and restrictions, between (1) points in Los Angeles area as described in its certificate, on the one hand, and, on the other, Redlands, including intermediate points over and along, and points laterally within 3 miles of U.S. Highways 60, 70, and 99; (2) the said Los Angeles area and San Bernardino, including specified intermediate points; (3) the said Los Angeles area, on the one hand, and, on the other, Whittier, Fullerton, and Santa Ana, with no service at intermediate points; (4) the said Los Angeles area, on the one hand, and, on the other, Crestline, Lake Arrowhead, and Big Bear Lake and intermediate and off-route points within 3 miles laterally of the highways involved on specifically described routes, subject to specified conditions and restrictions; and (5) San Bernardino and Riverside, Calif., on the one hand, and Santa Ana, Calif., on the

other hand, via U.S. Highways 395 and 91, State Highways 18 and 55 and the Santa Ana Canyon Road; serving all intermediate points and the off-route point of Costa Mesa and points laterally within 3 miles of said highways and road. Donald Murchinson, 211 Allen Paris Building, 211 South Beverly Drive, Beverly Hills, Calif., 90212, attorney for applicants.

No. MC-FC-68124. By order of August 31, 1965, the Transfer Board approved the transfer to William Hatfield, Jr., and Robert Hatfield, a partnership, doing business as Hatfield's Auto Service, Muscatine, Iowa, of the operating rights in Certificate No. MC-100367, issued April 18, 1940, to Otto George Schmidt, doing business as Schmidt's Auto Service, Muscatine, Iowa, authorizing the transportation, over irregular routes, of: disabled motor vehicles from points in Illinois to Muscatine, Iowa. William A. Landau, 1307 East Walnut Street, Des Moines, Iowa, 50306, representative for applicants.

[SEAL] H. NEIL GARSON,
Secretary.

[F.R. Doc. 65-9449; Filed, Sept. 7, 1965; 8:51 a.m.]

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FEDERAL REGISTER

VOLUME 30 • NUMBER 173

Wednesday, September 8, 1965 • Washington, D.C.

PART II

Department of the Treasury

Coast Guard

•

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. 423, 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, 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; 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			Tank barge—all waters
		Ocean and coastwise	Great Lakes	Lakes, bays, sounds, and rivers	
a	Bailer	1	1	None	None
b	Bilge pump	1	None	None	None
c	Boathooks	2	1	1	[4] 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	[4] 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	[4] 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	[4] 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)	[3] 1	[3] 1	[3] 1	[3] [4] 1
dd	Rudder and tiller	1	1	None	[4] 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] [5] 1/2 unit	None	None
hh	Signals, distress, red parachute flare (units)	[3] [5] 1	[3] [5] 1/2 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	None
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	[3] 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	[1]			
100	250	[2] 1	[2] 2	1½	1½
250	400	2	[2] 2	1½	1½
400	650	2	[3] 2	[4] 2½	1½
650		2	[3] 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	1	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. 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.

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, 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 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, 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 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	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(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	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	(3)	6,700	6,700	6,500	6,300	5,000	3,800	2,500					
51.67	B-96	Copper-silicon	B96-A or -C	50,000	18,000	(3)	12,000	12,000	11,900	11,700								
51.67	B-171	Naval brass	B171-A	60,000	20,000	(3)	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	(3)	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	(3 5)	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	(3 5)	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	(3)	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	6063-T6W	6063-T6W	[6] 17,000			4,250	4,200	4,000	3,800	3,600	2,750	1,900					
51.80	B-235																	
51.80	B-241																	
51.80	B-210	6061-T6W	6061-T6W	[6] 24,000			6,000	5,900	5,700	5,400	5,000	4,200	3,200					
51.80	B-234																	
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	5,000	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	6,000	3,000	2,000				
51.72	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					
51.72	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	(3)	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	40,000	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	10,300	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	[6] 24,000			6,000	5,900	5,700	5,400	5,000	4,200	3,200					
51.81	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	[6] 24,000			6,000	5,900	5,700	5,400	5,000	4,200	3,200					
51.81	B-247	6063-T6	6063-T6	30,000	30,000	(13)	9,000	8,400	7,900	7,300	6,100	4,700	3,200					
Castings																		
51.76 [4]	B-61	Steam bronze	2A	34,000	16,000	(14)	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	(14)	7,500	7,300	7,100	6,900	6,800	6,600	[15] 6,500					
51.76	B-143	Tin bronze 1A	1A	40,000	18,000	(14)	8,000	8,000	7,000	6,000	5,500	5,000						
51.76	B-143	Tin bronze 1B	1B	40,000	18,000	(14)	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 (¼" to ¾").	B163	90,000	55,000	[16]	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	[16]	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	[16 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 and address of fabricator)

---- 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, 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, 4433, 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 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 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, 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 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.
71.75–5 Passenger Ship Safety Certificate or Nuclear Passenger Ship Safety Certificate.
71.75–10 Exemption Certificate.
71.75–15 Posting of Convention certificates.
71.75–20 Duration of certificates.

§ 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, 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, 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, 483, 395, 363, 85a, 88a, 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; 167–48, 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 to be taken as extending from the molded base line to the margin line and between the extreme main transverse watertight bulkheads bounding the spaces containing the main 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 § 73.05–3.

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

TABLE 73.10–23(a)

L	"X"
430	1.336
440	1.285
450	1.236
460	1.174
470	1.117
480	1.060
490	1.002
500	.944
510	.885
520	.828
530	.766
540	.708
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 abaft the forepeak shall be fitted at a distance from the forward perpendicular which is not greater than the permissible length.

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(c). 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 § 73.35–5(b), all these doors shall be of the sliding type and shall be located so as to have their sills as high as practicable. The hand gear for operating these doors from above the bulkhead deck shall be situated outside the spaces containing the machinery if this is consistent with a satisfactory arrangement of the necessary gearing.

Subpart 73.35—Watertight Bulkhead Doors

8. Section 73.35–10 is amended by revising paragraphs (b) and (c) to read as follows:

§ 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. 888, 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, 68 Stat. 675; 46 U.S.C. 391, 392, 404, 481, 482, 483, 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. 8857; 167–48, 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.	½B	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.	½B	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.	½B	From base line upward without limit.
	20 feet+0.04L, involving not more than one main bulkhead.	½B	Top of double bottom upward without limit.
Vessels required by Subpart 73.10 to have a factor of subdivision of 0.33 or less.	20 feet+0.04L, but in any case long enough to involve two main bulkheads	½B	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, 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 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. 8857.

Subpart 75.10—Lifeboats, Liferafts, 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 § 75.10–80.

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	[2] 1 unit	[2] ½ unit	None
jj	Signals, distress, red parachute flare	[2] 1 unit	[2] 1 unit	None
kk	Tool kit (motor-propelled lifeboats only)	[2] 1 unit	[2] 1 unit	[2] 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 § 75.10-5(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, 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. 28, 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.[2]	Do.[1]
Public spaces	None required with 20-minute patrol. Electric, pneumatic, or automatic sprinkling with 1 hour patrol.[2]	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.[1]

[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] 1⅝	[1] 50
4,000	----------	3	[1] 1½	[1] 1⅝	[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
4,500	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 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	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 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 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 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	2	1	1
	Over 100	1	2	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 $\frac{5}{8}$-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, 481, 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	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 56–38, 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] 13/16	[2] 50
1,000	-----	2	[2] 1½	[2] 1⅛	[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 ¾-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	¼	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; OGFR 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	60	75	80	105
Commutator and collector rings	55	65	75	85	95	115
German silver or grid shunts on series field windings	175	----------	175	----------	(1)	----------
Bearings	35	----------	40	----------	(1)	----------

[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	Determined by—	Limits of temperature rises, degrees centigrade [3]					
		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	(3)	35	40	(3)

[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	130	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]

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, commutators (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	(2)	(2)
Totally enclosed	45	40	50	45	(2)	(2)

[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-operaed 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

or voice tube if other suitable means is provided or if the vessel configuration is such that direct voice communication between the wheelhouse and bow or forward lookout station is effective. When a sound powered telephone is installed, the requirements of § 113.30-20(b) are applicable.

3. Section 113.30-20 is amended by revising paragraph (b) and by adding new paragraphs (d) and (e) reading as follows:

§ 113.30-20 Sound powered telephone system, general requirements.

* * * * *

(b) The telephone stations listed in § 113.30-5 (a) through (d), (f), and (g) may be installed on the same circuit. However, when included on the same circuit with other required stations, the bow or forward lookout telephone must be provided with a wheelhouse cut-out switch if the telephone is located in the weather. Other stations which are desirable for the operation of the vessel, such as captain's and chief engineer's office and stateroom, emergency power room, CO_2 control room, fire pumproom, etc., will be considered for inclusion on this circuit.

* * * * *

(d) Except as provided in paragraph (b) of this section, telephone stations not specifically required by this subpart which are located in the weather shall not be included on a telephone circuit which includes any of the required telephone stations.

(e) Jack boxes or headsets shall not be utilized on a telephone installation that includes any of the stations required by this subpart.

4. Section 113.30-25 is amended by revising paragraphs (a) and (i) to read as follows:

§ 113.30-25 Sound powered telephone system, detail requirements.

(a) Sound powered telephone equipment used on a telephone circuit that includes any of the stations required by this subpart shall be of a type approved by the Commandant.

* * * * *

(i) Telephone cables shall be run as close to the fore and aft centerline of the vessel as is practicable and through runs of cable should avoid such spaces as machinery room and galleys.

SUBCHAPTER M—BULK GRAIN CARGOES

PART 144—LOADING AND STOWAGE OF GRAIN CARGOES

1. The authority for Part 144 is amended to read as follows:

AUTHORITY: The provisions of this Part 144 issued under R.S. 4405, as amended, 4462, as amended, sec. 632, 63 Stat. 545; 46 U.S.C. 375, 416, 14 U.S.C. 632. Interpret or apply R.S. 4417, as amended, 4426, as amended, sec. 1, 49 Stat. 1544, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 404, 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.

SUBCHAPTER N—DANGEROUS CARGOES

PART 146—TRANSPORTATION OR STORAGE OF EXPLOSIVES OR OTHER DANGEROUS ARTICLES OF SUBSTANCES, AND COMBUSTIBLE LIQUIDS ON BOARD VESSELS

The authority for Part 146 is amended to read as follows:

AUTHORITY: The provisions of this Part 146 issued under R.S. 4405, as amended, 4462, as amended, 4472, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 375, 416, 170; 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 147—REGULATIONS GOVERNING USE OF DANGEROUS ARTICLES AS SHIPS' STORES AND SUPPLIES ON BOARD VESSELS

The authority for Part 147 is amended to read as follows:

AUTHORITY: The provisions of this Part 147 issued under R.S. 4405, as amended, 4462, as amended, 4472, as amended; 46 U.S.C. 375, 416, 170; sec. 3, 68 Stat. 675, as amended; 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.

SUBCHAPTER P—MANNING OF VESSELS

PART 157—MANNING REQUIREMENTS

The authority for Part 157 is amended to read as follows:

AUTHORITY: The provisions of this Part 157 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Treasury Department Order 120, July 31, 1950, 15 F.R. 6521. Additional authority is cited in parentheses following the sections affected.

SUBCHAPTER Q—SPECIFICATIONS

PART 160—LIFESAVING EQUIPMENT

1. The authority for Part 160 is amended to read as follows:

AUTHORITY: The provisions of this Part 160 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Treasury Department Order 120, July 31, 1950, 15 F.R. 6521. Additional authority cited with sections affected.

Subpart 160.001—Life Preservers, General

2. The authority note for Subpart 160.001 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.001 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, as amended, 4492, as amended, sec. 10, 35 Stat. 428, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, secs. 6, 17, 3, 54 Stat. 164, as amended, 166, as amended, 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 490, 395, 367, 526e, 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 160.002—Life Preservers, Kapok, Adult and Child (Jacket Type), Models 3 and 5

3. The authority note for Subpart 160.002 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.002 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, as amended, 4492, as amended, sec. 10, 35 Stat. 428, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, secs. 6, 17, 3, 54 Stat. 164, as amended, 166, as amended, 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 490, 395, 367, 526e, 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 160.003—Life Preservers, Cork (Jacket Type), Models 32 and 36 [Canceled]

4. Subpart 160.003, consisting of §§ 160.003-1 to 160.003-7, inclusive, is canceled effective July 1, 1965.

(R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416)

Subpart 160.004—Life Preservers, Balsa Wood (Jacket Type), Models 42 and 46 [Canceled]

5. Subpart 160.004, consisting of §§ 160.004-1 to 160.004-7, inclusive, is canceled effective July 1, 1965.

(R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416)

Subpart 160.005—Life Preservers, Fibrous Glass, Adult and Child (Jacket Type), Models 52 and 56

6. The authority note for Subpart 160.005 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.005 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4481, as amended, 4488, as amended, 4491, as amended, sec. 10, 35 Stat. 428, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, secs. 6, 17, 3, 54 Stat. 164, as amended, 166, as amended, 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 490, 395, 367, 526e, 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 160.006—Life Preservers; Repairing and Cleaning

7. The authority note for Subpart 160.006 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.006 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4481, as amended, 4488, as amended, 4491, as amended, sec. 10, 35 Stat. 428, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, secs. 6, 17, 3, 54 Stat. 164, as amended, 166, as amended, 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 395, 367, 526e, 526p, 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; 167-20, 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 160.009—Buoys, Life, Ring, Cork or Balsa Wood, for Merchant Vessels and Motorboats

8. The authority note for Subpart 160.009 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.009 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, secs. 6, 17, 3, 54 Stat. 164, as amended, 166, as amended, 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 367, 526e, 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.

9. Section 160.009-1 is amended to read as follows:

§ 160.009-1 Applicable specifications and plan.

(a) *Specifications and standards.* The following specifications and standards, of the issue in effect on the date ring life buoys are manufactured, form a part of this subpart:

(1) Military specification:

MIL-T-7807—Thread, Nylon.

(2) Federal specifications:

MMM-A-188—Adhesive; urea, resin-type (liquid and powder).
V-T-276—Thread, cotton.
V-T-291—Thread, linen.
CCC-C-443—Cloth, cotton, duck; (single and plied filling) yarns, flat.
CCC-T-191—Textile test methods.
T-R-601—Rope, manila.

(3) Federal standards:

No. 595—Colors.
No. 751—Stitches, seams, and stitchings.

(4) Coast Guard specifications:

164.001—Cork, sheet.
164.002—Balsa wood.

(b) *Plan.* The following plan, of the issue in effect on the date ring life buoys are manufactured, forms a part of this specification:

Dwg. No. 160.009—Cork and balsa wood ring life buoy; arrangement and construction details.

(c) *Copies on file.* Copies of the specifications, standards and plans referred to in this section shall be kept on file by the manufacturer, together with the certificate of approval. The Coast Guard plan and specifications may be obtained upon request from the Commandant, U.S. Coast Guard, Washington, D.C., 20226. The Federal Specifications and Standard may be purchased from the Business Service Center, General Services Administration, Washington, D.C., 20407. The Military Specification may be obtained from the Commanding Officer, Naval Supply Depot, 5801 Tabor Avenue, Philadelphia, Pa., 19120.

10. Section 160.009-3 is amended by revising paragraphs (b), (c), (d), (e), and (f) to read as follows:

§ 160.009-3 Materials.

* * * * *

(b) *Cover.* The cover shall be cotton duck of a weight not less than 9.68 ounces per square yard, complying with Federal Specification CCC-C-443 for Type I and Type II material, except that the marine inspector may accept other cotton fabrics having not less weight and strength or weather-resistant synthetic fabrics having not less strength. Ring life buoys shall be either international orange (Color No. 12197 of Federal Standard 595) or natural greige in color and the colorfastness shall be rated as "good" when tested in accordance with Federal Specification CCC-T-191, Methods 5610, 5630, 5650, and 5660.

(NOTE: On vessels on an international voyage, all ring life buoys shall be international orange in color.)

(c) *Grabline.* The grabline may be ⅜-inch, three-strand (twelve yarns) manila, complying with Federal Specification T-R-601, or ⅜-inch polyethylene, polypropylene or other suitable buoyant type synthetic material having a minimum breaking strength of 1,350 pounds.

(d) *Beckets.* The beckets for securing the grabline shall be 2-inch polyethylene, polypropylene, nylon, saran, materials permitted for the cover, or other suitable webbing material having a minimum breaking strength of 585 pounds. In addition, polyethylene and polypropylene shall be a weather-resistant type which is stabilized as to heat, oxidation, and ultraviolet light degradation.

(e) *Thread.* The thread for securing the straps, cover and the grabline, shall be either nylon, Type II, Size 4, Class 2, of Specification MIL-T-7807; No. 16, three-cord linen thread, complying with Federal Specification V-T-291, Table I; or No. 10, 6-ply, glazed finish, heavy cotton thread, complying with Federal Specification V-T-276, Table IV, Type IIIB. Alternate threads will be given special consideration.

(f) *Glue.* The adhesive shall be of a waterproof resin type glue, complying with Federal Specification MMM-A-188.

* * * * *

11. Section 160.009-4 is amended by revising paragraphs (d), (e), and (f) to read as follows:

§ 160.009-4 Construction, workmanship, and performance requirements.

* * * * *

(d) *Beckets.* Each ring buoy shall be fitted with four beckets located at equidistant points about the body of the buoy. The beckets shall be 2 inches wide and shall be attached to the cover by stitching and seams as set forth in paragraph (f) of this section. Beckets made of materials permitted for the cover shall be made of double thickness with raw edges turned under. Beckets shall be so arranged to cover the cross section seams where the cover is joined.

(e) *Grabline.* The finished length of the grabline shall be four times the outside diameter of the buoy. The ends of the grabline shall be securely and neatly spliced together, or shall be hand whipped with a needle and both ends securely and smoothly seized together. It shall be festooned in bights around the buoy and pass through the beckets. The beckets shall be sewn tightly and securely to the grabline by a stitching as described in paragraph (f) of this section.

(f) *Stitching.* All machine stitching shall be a lock stitch conforming to stitch 301 of Federal Standard No. 751, and there shall be not less than 5 stitches to the inch. All hand stitching shall be made with double threads. The stitching around the inside perimeter of the buoy to close the cover shall be a hand rope stitch not less than 2 stitches to the inch. The beckets and grabline shall be attached as follows: The ends of the beckets shall be turned back at least 1 inch, one end to go around the grabline and the other to be laid against the first end. The beckets shall then be stitched to the grabline with not less than 5 hand stitches or machine stitched with not less than 3 stitches per inch. Both edges of the beckets shall be fastened to the inside perimeter of the buoy with a hand cross stitch. Alternate methods of rigging the beckets and grabline will be given special consideration.

* * * * *

§ 160.009-7 [Amended]

12. Section 160.009-7 *Procedure for approval* is amended to show the ZIP Code in the address in paragraph (a) by changing the address from "Washington 25, D.C." to "Washington, D.C., 20226."

Subpart 160.010—Buoyant Apparatus for Merchant Vessels

13. The authority note for Subpart 160.010 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.010 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, secs. 6, 17, 3, 54 Stat. 164, as amended, 166, as amended, 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 367, 526e, 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 160.011—Gas Masks, Self-Contained Breathing Apparatus, and Supplied-Air Respirators, for Merchant Vessels

14. The authority note for Subpart 160.011 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.011 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167-20, 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 160.012—Lights, Water: Self-Igniting (Calcium Carbide-Calcium Phosphide Type), for Merchant Vessels

15. The authority note for Subpart 160.012 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.012 interpret or apply R.S. 4426, as amended, 4488, as amended, 4491, 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. 404, 481, 489, 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; 167-20, 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 160.013—Hatchets (Lifeboat and Liferaft) for Merchant Vessels

16. The authority note for Subpart 160.013 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.013 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 395, 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; 167–20, 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 160.015—Lifeboat Winches for Merchant Vessels

17. The authority note for Subpart 160.015 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.015 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, as amended, sec. 10, 35 Stat. 428, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 395, 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; 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.

18. Section 160.015–3(a) is amended to read as follows:

§ 160.015–3 Construction of lifeboat winches.

(a) Lifeboat winches shall be of such strength that the lifeboat may be lowered safely with its full complement of persons and equipment. Additionally, a lifeboat winch used in hoisting an emergency lifeboat of a passenger vessel shall be capable of meeting the test specified in § 160.015–5(b)(9). A minimum factor of safety of six on the ultimate strength of the material shall be maintained at all times based on the approved working load.

* * * * *

19. Section 160.015–5(b) is amended by redesignating subparagraph (9) as (10) and by adding a new subparagraph (9), so that subparagraphs (9) and (10) read as follows:

§ 160.015–5 Inspection and testing of lifeboat winches.

* * * * *

(b) *Factory test for initial approval.* * * *

(9) The following test applies to a lifeboat winch used for hoisting an emergency lifeboat of a passenger vessel. With a weight equal to the weight of the emergency lifeboat and its full complement of persons and equipment, it shall be demonstrated that the weight can be hoisted through the regular reeving of the falls at a rate of not less than 20 feet per minute, to the embarkation position.

(10) After the tests noted in subparagraphs (2) to (9) of this paragraph have been conducted, the winch shall be completely disassembled and the marine inspector shall ascertain that no undue stress or wear has been incurred.

* * * * *

Subpart 160.016—Lamps, Safety, Flame, for Merchant Vessels

20. The authority note for Subpart 160.016 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.016 interpret or apply R.S. 4417a, as amended, 4488, as amended, 4491, 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. 391a, 481, 489, 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; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.017—Ladders, Embarkation-Debarkation (Flexible), for Merchant Vessels

21. The authority note for Subpart 160.017 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.017 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167–20, June 18, 1956, 21 F.R. 4894; 167–38, Oct. 26, 1959, 24 F.R. 8857.

§ 160.017–5 [Amended]

22. Section 160.017–5 *Construction of Type I ladders* is amended by changing a phrase in the last sentence of paragraph (a) from "from 15 to 18 inches" to "not less than 19 inches".

§ 160.017–6 [Amended]

23. Section 160.017–6 *Construction of Type II ladders* is amended by changing a phrase in the last sentence of paragraph (a) from "from 15 to 18 inches" to "not less than 19 inches".

Subpart 160.018—Liferafts for Merchant Vessels

24. The authority note for Subpart 160.018 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.018 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4481, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167–20, June 18, 1956, 21 F.R. 4894; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.021—Signals, Distress, Hand Red Flare, for Merchant Vessels

25. The authority note for Subpart 160.021 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.021 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.022—Signals, Distress, Floating Orange Smoke, for Merchant Vessels

26. The authority note for Subpart 160.022 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.022 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167–20, June 18, 1956, 21 F.R. 4894; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.023—Signals, Distress, Combination Flare and Smoke, Hand, for Merchant Vessels

27. The authority note for Subpart 160.023 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.023 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.024—Signals, Distress, Pistol-Projected Parachute Red Flare, for Merchant Vessels

28. The authority note for Subpart 160.024 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.024 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167–20, June 18, 1956, 21 F.R. 4894; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.026—Water, Emergency Drinking (In Hermetically Sealed Containers), for Merchant Vessels

29. The authority note for Subpart 160.026 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.026 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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, 68 Stat. 675; 46 U.S.C. 391a, 404, 481,

489, 395, 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; 167-20, 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.

30. Section 160.026-1 is amended to read as follows:

§ 160.026-1 Applicable specifications and standard.

(a) *General.* The following specifications and standard, of the issue in effect on the date emergency drinking water is packed, form a part of this subpart:

(1) Military specifications:

MIL-L-7178—Lacquer; cellulose nitrate, gloss for aircraft use.
MIL-E-15090—Enamel, equipment, light-gray (Formula No. 111).
MIL-W-15117—Water, drinking, canned, emergency.

(2) U.S. Public Health Service:

Drinking Water Standards (Publication No. 956).

(b) *Copies on file.* Copies of the specifications referred to in this section shall be kept on file by the packer, together with the approved plans and certificate of approval issued by the Coast Guard. The military specifications may be obtained from the Commanding Officer, Naval Supply Depot, 5801 Tabor Avenue, Philadelphia, Pa., 19120. The "Drinking Water Standards" may be obtained from the U.S. Department of Health, Education, and Welfare, Public Health Service, Washington, D.C., 20201.

31. Section 160.026-4 is amended to read as follows (Table 160.026-4(a) is deleted):

§ 160.026-4 Water.

(a) Only water meeting the U.S. Public Health Service "Drinking Water Standards" which has been suitably inhibited to protect the container against corrosion shall be used. After treatment and packing the water shall be free from organic matter, sediment and odor. It shall have a pH between 7.0 and 9.0 as determined by means of a standard pH meter using glass electrodes.

32. Section 160.026-6 is amended by revising paragraph (a) and Table 160.026-6(d2) in paragraph (d) to read as follows:

§ 160.026-6 Sampling, inspection, and tests of production lots.

(a) *General.* When packing of approved emergency drinking water for lifeboats and liferafts is to commence, the packer shall notify the Commander of the Coast Guard District in which the plant is located in sufficient time for him to assign a marine inspector to the plant to observe production methods, select samples from production, and conduct the inspections and tests required by this subpart.

* * * * *

(d) *Laboratory tests of containers and water.* * * *

TABLE 160.026-6(d2)—DESCRIPTION OF LABORATORY TESTS

Number of containers per set of samples to be tested	Type of test	Reference specification for test procedure to be followed
2	Internal corrosion and vacuum.	MIL-W-15117.
9	Bacteriological limits and salt content.	MIL-W-15117 and U.S. Public Health "Drinking Water Standards."

* * * * *

33. Section 160.026-7(a) is amended to read as follows:

§ 160.026-7 Procedure for approval.

(a) *General.* Emergency drinking water for lifeboats and liferafts on merchant vessels is approved only by the Commandant, U.S. Coast Guard, Washington, D.C., 20226. Correspondence pertaining to the subject matter of this Specification shall be addressed to the Commander of the Coast Guard District in which the plant is located.

* * * * *

Subpart 160.027—Lifefloats for Merchant Vessels

34. The authority note for Subpart 160.027 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.027 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167-20, June 18, 1956, 21 F.R. 4894; 167-38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.028—Signal Pistols for Parachute Red Flare Distress Signals for Merchant Vessels

35. The authority note for Subpart 160.028 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.028 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167-20, June 18, 1956, 21 F.R. 4894; 167-38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.031—Line-Throwing Appliance, Shoulder Gun Type (and Equipment), for Merchant Vessels

36. The authority note for Subpart 160.031 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.031 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 395, 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; 167-20, 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 160.032—Davits for Merchant Vessels

37. The authority note for Subpart 160.032 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.032 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167-20, June 18, 1956, 21 F.R. 4894; 167-38, Oct. 26, 1959, 24 F.R. 8857.

38. Section 160.032-1 is amended to read as follows:

§ 160.032-1 Applicable specifications.

(a) *Specifications.* The following specifications of the issue in effect on the date the davits are manufactured form a part of this subpart:

(1) A.S.T.M. standards:

A7, Specification for Steel for Bridges and Buildings.
A27, Specification for Mild to Medium Strength Carbon Steel Castings for General Application.
A216, Specification for Carbon-Steel Castings Suitable for Fusion Welding for High Temperature Service.

(b) *Copies on file.* Copies of the specification standards referred to in this section shall be kept on file by the manufacturer, together with the approved plans and certificate of approval. The A.S.T.M. Standards may be purchased from the American Society for Testing Materials, 1916 Race Street, Philadelphia, Pa., 19103.

39. Section 160.032-3 is amended by revising paragraphs (a) and (b) to read as follows:

§ 160.032-3 Construction of davits.

(a) *Strength required.* Davits shall be of such strength that the lifeboat may be lowered safely with its full complement of persons and equipment, it being assumed that the vessel is heeled 15 degrees in either direction and with a 10-degree trim. A minimum factor of safety of 6 on the ultimate strength of the materials shall be maintained at all times based on the approved working load.

(b) *Turning out.* (1) Mechanical davits shall be designed so that they may be operated from the full inboard to the full outboard position when the lifeboat is fully equipped, but not loaded with persons, it being assumed that the vessel is heeled 15 degrees in either direction and with a 10-degree trim.

(2) Gravity davits shall be designed so that they may be operated automatically from the full inboard to the full outboard position when the lifeboat is fully equipped, but not loaded with persons, it being assumed that the vessel is heeled 15 degrees in either direction and with a 10-degree trim. This operation shall be accomplished by merely releasing the brake of the lifeboat winch.

* * * * *

40. Section 160.032-5(b) is amended by revising subparagraphs (2), (3), (7), and (8) to read as follows:

§ 160.032–5 **Inspection and testing of davits.**

* * * * *

(b) *Factory tests for initial approval.* * * *

(2) A weight equal to 2.2 times the working load shall be suspended from the eye or end of the davit arm. With this load suspended from the davit it shall be operated from the full inboard to the full outboard position using the same operating crank or device used in actual practice aboard ship. The load shall then be swung in a fore and aft direction through an arc of approximately 10 degrees, each side of the vertical. The davit arm and frame shall show no permanent set or undue stress from this test. While this test is being conducted, the frame and arm, if of cast material, shall be subject to a test by being hammered to satisfy the inspector that the castings are sound and without flaws.

(3) A weight equal to 0.5 times the normal working load shall be suspended from the eye or end of the davit arm. This load shall be moved from the full inboard to the full outboard position using the actual handles supplied with the davit. The time required for this operation shall not exceed 90 seconds. The above test shall also be conducted with the davits set up to simulate a 15-degree inboard list with a 10-degree trim to determine that the davits may be satisfactorily operated in that condition. The above test shall also be conducted with the davits set up to simulate a 15-degree outboard list with a 10-degree trim. This test shall determine that the davit arms will not run out under the weight of the light boat.

* * * * *

(7) A weight equal to 2.2 times the working load shall be attached to the falls and suspended from the davit arm when in the full outboard position. The load shall be swung in a fore and aft direction through an arc of approximately 10 degrees each side of the vertical. The davit arm and trackways shall show no permanent set or undue stress from this test.

(8) The entire davit assembly shall then be heeled inboard 15 degrees and with a 10-degree trim. In this condition a weight equal to 0.5 times the working load shall be suspended from the falls and shall be operated from the full inboard to the full outboard position. This test shall demonstrate that the load is sufficient to turn out the davit by merely releasing the brake on the winch. Stops shall be made at intervals between the inboard and outboard positions to assure that the davit will start from any position.

* * * * *

Subpart 160.033—Mechanical Disengaging Apparatus, Lifeboat, for Merchant Vessels

41. The authority note for Subpart 160.033 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.033 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167–20, June 18, 1956, 21 F.R. 4894; 167–38, Oct. 26, 1959, 24 F.R. 8857.

42. Section 160.033–4(d) is amended to read as follows:

§ 160.033–4 **Inspection and testing of mechanical disengaging apparatus.**

* * * * *

(d) *Factory testing after approval.* (1) In general, no factory tests after approval are required. However, each lifeboat in which mechanical disengaging apparatus is fitted shall be tested in accordance with § 160.035–13(a) of Subpart 160.035.

* * * * *

Subpart 160.034—Hand Propelling Gear, Lifeboats, for Merchant Vessels

43. The authority note for Subpart 160.034 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.034 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167–20, June 18, 1956, 21 F.R. 4894; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.035—Lifeboats for Merchant Vessels

44. Subpart 160.035, consisting of §§ 160.035–1 to 160.035–11, inclusive, is amended to read as follows:

Sec.

AUTHORITY NOTE: The provisions of this Subpart 160.035 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 395, 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; 167–20, 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.

§ 160.035–1 **Applicable specifications.**

(a) *Specifications.* The following specifications, of the issue in effect on the date lifeboats are manufactured, form a part of this subpart.

(1) A.S.T.M. Standards:

A93—Standard Specification for Zinc Coated Iron or Steel Sheets.
A7—Standard Specification for Steel for Bridges and Buildings.

(2) Military specifications:

MIL–P–18066—Plywood, Ship and Boat Construction.
MIL–Y–1140—Yarn, Cord, Sleeving, Cloth and Tape—Glass.
MIL–M–15617—Mats, Fibrous Glass, For Reinforcing Plastics.
MIL–R–7575—Resin, Polyester, Low-Pressure Laminating.
MIL–P–40619—Plastic Material, Cellular, Polystyrene.
MIL–P–17549—Plastic Laminates, Fibrous Glass Reinforced, Marine Structural.
MIL–P–19644—Plastic Foam, Molded Polystyrene (Expanded Bead Type).
MIL–C–19663—Cloth, Glass, Woven Roving, For Plastic Laminate.
MIL–R–21607—Resins, Polyester, Low Pressure Laminating, Fire Retardant.
MIL–P–21929—Plastic Material, Cellular, Polyurethane, Rigid, Foam-In-Place, Low Density.

(3) Federal specifications:

TT–P–59—Paint, Ready-Mixed, International Orange.

(4) Federal test method standard:

406—Plastics: Method of Testing.

(5) Federal Communications Commission:

47 CFR Part 83, Rules Governing Stations on Shipboard in the Maritime Service.

(6) Coast Guard specifications:

160.033—Mechanical Disengaging Apparatus (For Lifeboats).
160.034—Hand Propelling Gear (For Lifeboats).
161.006—Searchlights, Motor Lifeboat.

(b) *Copies on file.* Copies of the specifications and rules referred to in this section shall be kept on file by the manufacturer, together with the approved plans and certificate of approval. The Coast Guard Specifications may be obtained upon request from the Commandant, United States Coast Guard Headquarters, Washington, D.C., 20226. The A.S.T.M. Standards may be purchased from the American Society for Testing Materials, 1916 Race Street, Philadelphia, Pa., 19103. The Military Specifications may be obtained from the Commanding Officer, Naval Supply Depot, 5801 Tabor Avenue, Philadelphia, Pa., 19120. The Federal Communications Commission's Rules and Regulations may be obtained from the Federal Communications Commission, Washington, D.C., 20554. Federal Specifications and Standards may be obtained from the General Services Administration, Business Service Center, Washington, D.C., 20405.

§ 160.035–2 General requirements for lifeboats.

(a) The requirements of this subpart apply to all new construction. Lifeboats approved and in use prior to the regulations in this subpart may be continued in service if in satisfactory condition.

(b) All lifeboats must be properly constructed and shall be of such form and proportions that they shall be readily maneuverable, have ample stability in a seaway, and sufficient freeboard when fully loaded with their full complement of persons and equipment. All lifeboats shall be capable of maintaining positive stability when open to the sea and loaded with their full complement of persons and equipment. All lifeboats must be open boats with rigid sides having internal buoyancy only. Lifeboats with a rigid shelter may be approved, provided that it may be readily opened from both inside and outside, and does not impede rapid embarkation and disembarkation or the launching and handling of the lifeboat.

(c) Lifeboats may be constructed of steel, aluminum, fibrous glass reinforced plastic (FRP), or other materials receiving specific approval: *Provided*, That, the weight of the fully equipped and loaded lifeboat shall not exceed 44,800 pounds, and the carrying capacity calculated in accordance with § 160.035–9 of this specification shall not exceed 150 persons.

(1) The thwarts, side benches and footings of lifeboats shall be painted or otherwise colored international orange in accordance with Federal Specification TT–P–59. The area in way of the red mechanical disengaging gear control lever, from the keel to the side bench, shall be painted or otherwise colored white, to provide a contrasting background for the lever. This band of white should be approximately 12 inches wide depending on the internal arrangements of the lifeboat.

(d) For the purpose of calculations and conducting tests, the weight of the persons shall be taken at 165 pounds each.

(e) Motor lifeboats are classified as follows:

(1) 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.

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

(3) 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.

§ 160.035–3 Construction of steel oar-propelled lifeboats.

(a) *Type.* Lifeboats shall have rigid sides and be fitted with internal buoyancy so arranged that the boats will float in the flooded condition when fully loaded with persons and equipment. The capacity of an oar-propelled lifeboat is limited to a maximum of 59 persons. Lifeboats designed to carry 60 but not more than 100 persons shall be either hand-propelled or motor-propelled. Lifeboats designed to carry more than 100 persons shall be motor-propelled, except that a lifeboat designed to carry more than 100 persons may be hand-propelled if it is a replacement for a previously approved hand-propelled lifeboat.

(b) *Specifications.* The following specifications and schedule of lifeboat materials, including Table 160.035–3 shall be complied with unless other arrangements in matters of construction details, design, and strength, equivalent in safety and efficiency are approved by the Commandant.

(c) *Materials.* (1) Plating for shell, floors, air tanks, etc., shall be made by the open-hearth or electric furnace process in accordance with A.S.T.M. Standards A93 Class 1.25 Commercial. The bend tests required by these specifications shall be made after the galvanizing or other anticorrosive treatment has been applied.

(2) Rolled or extruded shapes such as keel, stem, sternpost, gunwales, etc., and rivets shall be made by the open-hearth or electric furnace process in accordance with A.S.T.M. Standard Specification A7. Consideration will be given to the use of other steels having equivalent strength where longitudinal cold forming is necessary.

(d) *Riveting.* (1) Where riveting is employed in the construction of the shell, double riveting shall be used. The centers of the rivets in the row nearest the edge of the sheet shall be not less than ⅜ inch nor more than ½ inch from the edge. Rivets shall be staggered with not less than 18 rivets to the foot and shall be countersunk head or button head rivets. The diameter of the rivets shall be not less than that shown in Table 160.035–3(d)(1).

TABLE 160.035–3(d)(1)

Plating thickness	Rivet diameter (inch)
18 USSG	⅛
16 USSG	⅛
14 USSG	5/32
13 USSG	5/32
12 USSG	3/16

(2) Riveting of the shell plating to the keel, stem, and sternpost shall be button head rivets, staggered with not less than 12 rivets to the foot. The distance from the edge of the plate to the centers of the rivets in the nearest row shall be not less than ½ inch nor more than ¾ inch. Rivets connecting the shell to the gunwale shall be spaced not more than 3 inches on centers. The size of the rivets for connecting the shell plating to the keel, stem, sternpost, and gunwale shall be ¼-inch diameter for boats 28 feet and under, and 5/16-inch diameter for boats over 28 feet.

(3) The connection of the floors to the shell shall be by a single row of rivets not less than 3/16 inch in diameter and spaced not more than 3 inches on centers.

(e) *Welding.* (1) Welding may be substituted for riveting in any location. It shall be performed by welders qualified by the U.S. Coast Guard, American Bureau of Shipping, or U.S. Navy Department, and only approved electrodes shall be used. Details of the joints shall be indicated on the construction drawings submitted for approval.

(f) *Keel, stem and sternpost.* (1) Dimensions shall be not less than those shown in Table 160.035–3.

(2) The keel, stem, and sternpost shall be in not more than two lengths except in the case of a lifeboat of stern frame construction where three lengths may be used. The scarph shall have a length of nine times the thickness of the keel and shall be strapped and riveted. A double Vee butt weld may be used without straps.

(g) *Shell plating.* (1) The gage of the shell plating shall be not less than that shown in Table 160.035–3.

(2) Where increased thickness of bottom plating is called for by Table 160.035–3, the thicker plating shall be fitted to approximately the turn of the bilge.

(3) Doubling plates of suitable size shall be fitted on all lifeboats where the shell is liable to damage, wear, or corrosion from contact with chocks. Doublers shall be not less than the thickness of the bottom plating.

(4) All seam and butt laps shall be at least 1¼ inches.

(5) The laps of joints on keel, stem, and sternpost shall be at least 2 inches.

(6) All seam and butt laps, laps of plating on keel, stem, and sternpost, shall be made over felt laid in wet red lead. Other methods will be given separate consideration.

(h) *Floors.* (1) Floors shall be fitted in lifeboats 24 feet in length and over.

(2) Floors shall be of a thickness not less than that of the bottom plating and shall be at least 6 inches deep at the centerline of the lifeboat, and shall be flanged 1½ inches top and bottom. The floors shall extend to approximately the turn of the bilge.

(3) The maximum floor spacing for boats 28 feet and under shall be 36 inches, and for boats over 28 feet but not exceeding 36 feet shall be 30 inches.

(4) Limber holes shall be cut in the floors and so located as to provide efficient drainage. The limber holes shall be so arranged that the load on the floors is taken by the keel as well as by the shell plating.

(i) *Gunwales.* (1) Dimensions of angular gunwales shall be not less than that shown in Table 160.035–3.

(2) The gunwales on each side of the lifeboat shall be in not more than two pieces. If the gunwales are fitted in two lengths, the joint shall be placed at approximately one-third of the length from the stem or stern of the boat and at opposite ends of the boat. The joint may be riveted or welded, and if riveted, the backing-up piece shall be angular in section of the thickness of the gunwale, and the length shall be not less than eight times the depth of the gunwale. A suitable butt weld may be used without backing-up bar.

(3) Flanged plates made from flat bars, dimensions of which shall be not less than that shown in Table 160.035–3, may be substituted for angle gunwales. The legs of the angles shall be approximately equal and the inside radius of the

bend shall be not less than ½ inch nor more than ¾ inch. The vertical leg shall be outside of the sheer strake.

(4) Wood gunwales when installed in metal lifeboats shall be of clear grained oak or teak. They shall be of a size as listed in the table below. When in two lengths the scarph shall be located as outlined in subparagraph (2) of this paragraph. Scarphs shall be of a good long bevel type stiffened on the under side by a piece of the same size and material as the gunwale and at least 2 feet in length. The lap of the wooden gunwale to the sheer strake shall be made over felt laid in wet red lead and the gunwale shall be secured to the sheer strake with fastenings placed on 3-inch centers.

TABLE 160.035-3(l)(4)

Length of lifeboat	Depth of gunwale	Width of gunwale
	Inches	*Inches*
12 feet and not over 18 feet	1¼	2½
Over 18 and not over 20 feet	1⅜	2¾
Over 20 and not over 22 feet	2	2¾
Over 22 and not over 24 feet	2¼	2½
Over 24 and not over 26 feet	2½	2½
Over 26 and not over 28 feet	2¾	2¾

(j) *Nosings.* (1) The outside of the gunwale angle shall have a nosing fitted to the gunwale of hollow steel, half round, 2 inches by ¼ inch. If a flanged plate gunwale is used, a nosing will not be required.

(2) The outside of a wooden gunwale shall have a nosing of clear grain oak or teak, secured to the sheer strake and the gunwale by fastenings spaced on 6-inch centers which fastenings may be substituted for alternate fastenings between the gunwale and sheer strake. On boats not over 20 feet long, the flat side of the nosing shall be not less than 1½ inches wide and ⅝ inch thick, on boats not over 24 feet in length it shall be not less than 1⅞ inches wide by 1 inch thick, on all boats over 24 feet in length it shall be not less than 2¼ inches wide by 1 inch thick.

(k) *Gunwale braces.* (1) The brace shall be bent outboard at the thwart so that the bolts and nuts do not obstruct the seating space. The gunwales shall be secured to the thwarts by steel braces, bolts, and rivets as follows:

TABLE 160.035-3(k)(1)

Length of lifeboat	Brace size	Bolts and rivets
	(inches)	*Diameter (inch)*
22 feet and under	3 x ¼	5/16
Over 22 feet and not over 28 feet	3 x 5/16	⅜
Over 28 feet	3 x ⅜	7/16

(2) The gunwale braces shall be bolted to the thwarts with at least two carriage bolts of a size not less than that noted in Table 160.035-3(k)(1) and riveted or welded to the gunwales. Where riveted to the gunwale, at least two rivets of a size not less than that noted in the table above shall be used.

(3) Bracket type gunwale braces will be given special consideration.

(l) *Breast plates.* (1) Breast plates shall be fitted to the stem and stern post. The thickness of the breast plates shall not be less than the thickness of the leg of the gunwale and the depth of the throat of the plate shall not be less than twice the depth of the gunwale. The breast plates of the boats that have mechanical disengaging apparatus shall be extended to connect and reinforce the hoisting plates of the disengaging apparatus.

(2) Breast hooks for wooden gunwales shall be of the strap type, not less than 1½ inches wide, nor less than ¼ inch thick. The length of each leg of the breast hook shall be not less than 5 times the width of the gunwale. The inside strap shall be continuous and the outside strap may be in two pieces provided they are through riveted to the stem or stern post. The inner and outer straps shall be through riveted or bolted to each other through the gunwale and sheer strake by not less than three rivets or bolts on each side.

(m) *Seats.* (1) The thwarts, side benches, and end benches shall be of fir, yellow pine, or approved equivalent.

(2) The dimensions of the thwarts shall be not less than that shown in Table 160.035-3. The mast thwart, if cut out in way of the mast, shall be suitably increased in width so that the width in way of the mast is not less than that required for other thwarts.

(3) The number of thwarts shall not be less than that set forth in Table 160.035-3.

(4) The distance from the top of the thwarts to the top of the gunwale shall be not less than that shown in Table 160.035-3.

(5) The thwart ends shall be fitted between flanges, or may be installed on top of both flanges, of a thickness not less than the bottom shell plating and secured to the thwart by two bolts in addition to the bolts through the gunwale braces. Each flange shall be riveted to the shell with rivets of the same size as used to connect the side and bottom plating and spaced not less than ten to the foot. The flanges shall extend inboard to take the brace bolts and shall be 1 inch in width less than the thwart. The ends of the thwart shall be not less than ⅜ inch and not more than ¾ inch from the shell.

(6) The edges of all thwarts, side, and end benches shall be well rounded.

(7) Suitable foot rests shall be furnished at a distance of between 17 to 20 inches below the thwarts and side benches. This may be accomplished by raising the footings from the bottom of the boat.

(8) Side and end benches shall be solid or close planked, not less than the following thicknesses:

TABLE 160.035-3(m)(8)

Length of lifeboat	Fir or pine	Plywood [1]
	Inch	*Inch*
Up to 24 feet	¾	⅝
24 feet to and including 36 feet	1	¾

[1] Plywood, if used, shall be at least equal to Military Specification MIL-P-18066, Plywood, Ship and Boat Construction, Class 1, or Commercial Standard CS-45 for Douglas-Fir Plywoods Exterior Grades A-A, A-B, A-C, or B-B, "Marine Exterior".

(n) *Stretchers.* (1) Stretchers of sufficient size and strength shall be fitted in suitable positions for rowing.

(o) *Stanchions.* (1) Fir or yellow pine stanchions of a size not less than that shown in Table 160.035-3 shall be fitted in all lifeboats where the unsupported length of the thwarts exceeds 4 feet.

(p) *Footings.* (1) Fir, pine, or plywood footings, of a thickness not less than that shown in paragraph (m)(8) of this section, shall cover the bottom of the lifeboat between the side tanks. If fir or pine footings are used, they shall be not less than 7½ inches wide or more than 9½ inches wide and they shall be spaced not more than 2 inches apart.

(2) The footings shall be made readily detachable and so arranged that the drain plugs are at all times directly accessible without removing the footings.

(q) *Disengaging apparatus.* (1) Connections for the disengaging apparatus shall have a minimum factor of safety of six.

(2) For construction and capacity of disengaging apparatus, see Subpart 160.033.

(r) *Plugs.* (1) Each lifeboat shall be fitted with an automatic plug so designed and installed as to insure complete drainage at all times when the boat is out of the water. The automatic plug shall be provided with a cap attached to the lifeboat by a suitable chain.

(s) *Protection against corrosion.* (1) All steel or iron entering into the construction of lifeboats shall be galvanized by the hot dipped process. All fabricated pieces or sections are to be galvanized after fabrication. Other methods of corrosion prevention will be given special consideration.

(2) Where welded construction is employed, the material shall be galvanized after welding unless impractical to do so in which case consideration will be given to equivalent protection.

(3) Provisions shall be made to obtain a satisfactory bond between the metal and the paint.

(t) *Rudders.* (1) Each liftboat for vessels in ocean, coastwise, and Great Lakes service shall be fitted with a rudder and tiller. The rudder shall be constructed of clear straight grained oak, properly strengthened with drifts or straps or plywood properly strengthened with straps of a thickness not less than that shown in Table 160.035-3.

The thickness may be reduced ⅛ inch if check pieces are fitted extending beyond the lower pintle connection. The oak rudder shall be stiffened across the bottom edge by a piece of wood of the same character or by a metal shoe. Plywood rudders shall be stiffened across the bottom edge by a metal shoe of a "U" type construction, with the fasteners located on the sides of the rudder in lieu of the bottom. Consideration will be given to the use of hollow metal rudders provided they are designed to float. Plywood, if used, shall be at least equal to Military Specification MIL–P–18066, Plywood, Ship and Boat Construction, Class 1, or Commercial Standard CS–45 for Douglas-Fir Plywoods Exterior Grades A–A, A–B, A–C, or B–B, "Marine Exterior". The rudders shall be fitted with a ½-inch diameter manila lanyard of such length as to permit the rudder to be shipped without untying the lanyard.

(2) The lower attachment of the rudder to the sternpost shall be by a gudgeon and pintle. The upper attachment shall be of the triple or double gudgeon drop pin type. Where the double gudgeon type is used, the pin shall be attached to the rudder by a chain.

(3) A suitable hinged or pivoted tiller shall be provided.

(4) Rudder stops shall be provided to limit the rudder angle to approximately 45 degrees each side of the centerline.

(u) *Buoyancy tanks.* (1) All lifeboats shall have inherent buoyancy, or shall be fitted with buoyancy tanks or other equivalent noncorrodible buoyancy units, which shall not be adversely affected by oil or oil products, sufficient to float the boat and its equipment when the boat is flooded and open to the sea. An additional volume of buoyancy, or buoyancy units, equal to at least one-tenth the cubic capacity of the lifeboat shall be provided.

(2) At least 50 percent of the buoyancy shall be located along the sides of the boat and it shall be so located that the boat will be on even keel when flooded.

(3) The tops of the buoyancy tanks or buoyancy units shall be protected by the side benches or other suitable means. The construction shall be such that water will not collect on the tops of the tanks.

(4) The buoyancy tanks shall have a name plate attached in such a location as to be visible from within the boat. The name plate shall be in accordance with subparagraph (7)(iv) of this paragraph.

(5) Buoyancy tanks shall be double riveted and caulked, hook jointed and soldered, or welded.

(6) *Independent buoyancy tanks.*

(i) Independent buoyancy tanks shall be securely fastened in such a manner that they may be temporarily removed for inspection purposes. Fastenings shall not pierce the buoyancy tanks.

(ii) The material for the buoyancy tanks shall be of a thickness not less than that noted below:

Capacity (cubic feet)	*USSG*
Not over 6	22
Over 6, not over 15	20
Over 15	18

(iii) A bolted inspection plate shall be provided in such a location that the tank will be accessible for inspection and repair.

(iv) Each independent buoyancy tank shall be filled with buoyancy material. The amount of material required shall be determined by the flooding test in accordance with § 160.035–11(b)(2). The buoyancy materials used shall meet the requirements set forth for core material in subparagraph (7)(ii) of this paragraph.

(7) *Independent buoyancy units.* (i) Buoyancy units shall be securely fastened in such a manner that they may be temporarily removed for inspection purpose. Fastenings shall not pierce the buoyancy units.

(ii) The materials for the buoyancy units shall be as follows:

TABLE 160.035–3(u)(7)

Core	Polystyrene	MIL–P–40619. MIL–P–19644.
	Polyurethane	MIL–P–21929.
Density	2.0 lbs./cu. ft.	Nominal. [1]
Cover, FRP [2]	Woven roving	MIL–C–19663.
	Mat	MIL–M–15617.
	Cloth and tape	MIL–Y–1140.

[1] The density required shall be a nominal 2.01 lbs./cu. ft. This contemplates a range of 1.5 to 2.5 lbs./cu. ft. density provided all of the requirements of a 2.0-lb. pour are met.

[2] The cover is to be reinforced with a polyester, or epoxy resin, having a minimum thickness of 0.06. The resin shall be fire retardant in accordance with Military Specification MIL–R–21607.

(iii) The buoyancy units shall have a nameplate attached in such a location as to be visible from within the boat.

(iv) The nameplate shall be made of a noncorrosive metal or of suitable plastic, attached in a permanent manner and contain the following information:

Lifeboat buoyancy unit or tank

Type (or model) _____
Cubic feet _____ Weight _____
Date _____
Name and address of the manufacturer _____
_____

(v) The volume of buoyancy units required shall be determined in accordance with the method set forth for buoyancy tanks in § 160.035–11(b)(2).

(8) *Built-in buoyancy tanks.* (i) A bolted inspection plate shall be provided in such a location that the tank will be accessible for inspection and repair.

(ii) The tops and sides of all built-in buoyancy tanks shall not be less than 14 USSG, except that 16 USSG may be used at the ends if severe forming is necessary. All bulkheads of built-in buoyancy tanks shall be not less than 16 USSG.

(iii) Each built-in buoyancy tank shall be filled with buoyancy material. The amount of material required shall be determined by the flooding test in accordance with § 160.035–11(b)(2). The buoyancy materials used shall meet the requirements set forth for core materials in subparagraph (7)(ii) of this paragraph.

(v) *Equipment stowage.* (1) Provision lockers, water tanks, and special equipment lockers shall be watertight and so designed and located as to fit under the side benches, end benches, or footings without projecting into the accommodation spaces of the lifeboat. In special cases, stowage under the thwarts will be permitted. Standard ¼-inch pipe size testing nipples shall be fitted to all such lockers or tanks.

(2) Water tanks shall be constructed of at least 18 USSG material. An opening with a dogged type cover shall be provided for removal of water cans. This opening shall be at least 7 inches in diameter, but in any case shall be of sufficient size that all water cans can be removed. In addition, built-in water tanks shall have an opening at least 13 inches in diameter with a bolted cover for the purpose of inspection and maintenance. A 2-inch diameter fill cap shall be installed for the purpose of storing rain water. A standard ¼-inch pipe size drainage nipple with hexagonal cap shall be fitted in the bottom of the tank in an accessible location and may be used for air testing the water tank.

(w) *Grab rails.* (1) Grab rails shall be substantially attached to each lifeboat below the turn of the bilge and extend approximately one-half of the length of the lifeboat on each side. The ends of the grab rails shall be faired to prevent fouling and all connections of the rails to the lifeboat shall be made by riveting the palms of the brackets to a small plate and riveting the plate to the shell. To prevent rupture of the shell if the grab rail is carried away, more rivets shall be used in attaching the plate to the shell than in fastening the bracket to the plate. The clearance between the grab rail pipe and the hull shall be at least 1½ inches. The connections of the rails to a fibrous glass reinforced plastic lifeboat hull, will be given special consideration.

(x) *Hand rails.* (1) All lifeboats intended for use in ocean and coastwise service shall be fitted with hand rails approximately 18 inches in length, constructed and attached to the lifeboat in the same manner as the grab rails required by paragraph (w) of this section. The clearance between the hand rail pipe and the hull shall be at least 1½ inches. The hand rails shall be located approximately parallel to and at both ends of the grab rails and spaced midway between the grab rail and the gunwale and midway between the grab rail and the keel on both sides of the lifeboat, provided that, when the distance from grab rail to gunwale or to the keel exceeds 4 feet, two hand rails shall be fitted so as to provide equal spacing. In no case shall the hand rails project beyond the widest part of the boat. Recessed hand rails or other alternate arrangements will be given consideration.

TABLE 160.035-3

Length of boat not over (feet)	Bar keel, stem, and sternpost (inches)	Gunwales		Shell plating		Thwarts			Stanchions (inches)	Painter shackles (nominal size)	Rudder thickness (inches)
		Angle bar (inches)	Flanged flat bar (inches)	Side (USSG)	Bottom (USSG)	Number required	Distance from top of thwart to top of gunwale (inches)	Size (inches)			
12.0	2½ x ¼	2 x 1½ x ¼	3½ x ¼	18	18	4	9	1⅛ x 7½	1⅛ x 3½	⅝	1
14.0	2½ x ½	2 x 1½ x ¼	3½ x ¼	18	18	4	9	1⅛ x 7½	1⅛ x 3½	⅝	1
16.0	2½ x ½	2 x 1½ x ¼	3½ x ¼	18	18	4	9	1⅛ x 7½	1⅛ x 3½	⅝	1
18.0	2½ x ⅝	2 x 2 x ¼	4 x ¼	16	16	4	9	1⅛ x 7½	1⅛ x 3½	⅝	1
20.0	2½ x ¾	2 x 2 x ¼	4 x ¼	16	16	5	9	1⅛ x 7½	1⅛ x 3½	¾	1
22.0	2½ x ¾	2 x 2 x ¼	4 x ¼	16	14	5	9	1⅛ x 7½	1⅛ x 3½	¾	1¼
24.0	3 x ¾	2½ x 2 x ¼	4½ x ¼	16	14	5	10	1⅜ x 9½	1⅜ x 5½	¾	1¼
26.0	3 x ¾	2½ x 2 x ¼	4½ x ¼	14	13	6	10	1⅜ x 9½	1⅜ x 5½	¾	1¼
28.0	3½ x ¾	2½ x 2½ x ¼	5 x ¼	13	12	6	10	1⅜ x 9½	1⅜ x 5½	¾	1¼
30.0	3½ x ¾	2½ x 2½ x ¼	5 x ¼	13	12	7	11	1⅜ x 9½	1⅜ x 5½	¾	1¼
32.0	4 x ¾	2½ x 2½ x ¼	5 x ¼	13	12	7	11	1⅜ x 11½	1⅜ x 5½	¾	1¼
34.0	4 x ¾	2½ x 2½ x 5/16	5 x 5/16	12	12	8	11	1⅜ x 11½	1⅜ x 5½	¾	1¼
36.0	4 x 1	2½ x 2½ x 5/16	5 x 5/16	12	12	8	11	1⅜ x 11½	1⅜ x 5½	¾	1¼

NOTE: Hoisting shackles, if provided, shall have a factor of safety of 6 based on the lowering weight of the fully loaded lifeboat.

§ 160.035-4 Construction of steel hand-propelled lifeboats.

(a) A hand-propelled lifeboat shall comply with all the requirements for an oar-propelled lifeboat, and in addition, shall have sufficient additional buoyancy to compensate for the weight of the hand-propelling gear.

(b) The hand-propelling gear shall be of an approved type and shall be substantially constructed and securely fitted in the lifeboat. The design shall be such that the lifeboat may be readily maneuvered from the ship's side after being launched and steerage way maintained under adverse weather conditions. Provisions shall be made for going astern. The hand-propelling gear shall propel the lifeboat with only a normal amount of effort while maintaining an average speed of not less than 3 knots over a measured course of not less than 1,000 feet.

(c) The hand-propelling gear shall be so designed that it may be operated by persons untrained in its use, and shall be operable when the boat is flooded.

(d) For construction of Hand-Propelling Gear, See Subpart 160.034.

§ 160.035-5 Construction of steel motor-propelled lifeboats with and without radio cabin.

(a) *General provisions applicable to all motor-propelled lifeboats.* (1) A motor-propelled lifeboat, carried as part of the lifesaving equipment of a vessel, whether required or not, shall comply with all the requirements for an oar-propelled lifeboat, and in addition, shall have sufficient additional buoyancy to compensate for the weight of the engine and other equipment.

(2) The engine shall be enclosed in a suitable engine box which shall be watertight with the exception of the top which may be weathertight. If the engine box is made of material other than steel or aluminum, such as fibrous glass reinforced plastic, it shall be made of fire retardant material. The top of the engine box shall be fitted with a screw-down mushroom vent. The engine box shall be fitted with a suitable drain. There shall be ample space between the engine and the engine box to permit proper maintenance and removal of engine accessories when necessary. If the internal arrangements of the engine in the engine box does not permit this, then suitable watertight hand-hole plates shall be installed in the vicinity of these accessories. The location of these plates and the accessibility to the accessories shall be to the satisfaction of the marine inspector. The marine inspector may require the removal of any accessory through these hand-hole plates that he may deem necessary to establish that it is of proper size and location.

(3) Fuel tanks shall be constructed of steel, fibrous glass reinforced plastic or other approved equivalent. Fuel tanks shall be adequately supported and securely fastened inside the lifeboat to prevent any movement. Fuel tanks shall have no openings in the bottom, sides or ends. Openings for fill, vent and feed pipes shall be on the top surface of the tanks. The access openings in the thwarts for the fill tank cap shall have a flush cover or the top of the cap shall be flush with the top of the thwart. Fuel tanks shall be provided with a shut off valve at the tank, where it is readily accessible and the location marked. Tanks shall be designed with a factor of safety of not less than 4, and shall be tested by a static head above the tank top of 10 feet of water without showing leakage or permanent deformation. A graduated measurement stick or other means shall be provided to determine the amount of fuel in the tank.

(i) Steel diesel oil fuel tanks shall have a thickness of not less than 12 USSG and shall not be galvanized on the inside; however, the outside of such tanks shall be so treated as to to obtain a corrosion resistance approximately equivalent to hot-dip galvanizing. Swash plates shall be fitted in tanks over 30 inches in length.

(ii) Fibrous glass reinforced plastic diesel oil fuel tanks shall have a thickness of not less than 0.187 inch. The resins used shall be of a fire retardant type and shall qualify under military specification MIL-R-21607. The mechanical properties of the tank shall not be less than Grade No. 4 of military specification MIL-P-17549. Mat, woven roving and 1000th cloth shall be used. Tank laminates shall not be constructed exclusively with fibrous glass fabrics. An increment of random oriented, chopped fibrous glass reinforcement is deemed necessary to prevent porosity. An ounce and a half per square foot is considered minimum. Inclusion of fabrics in low pressure laminates are recommended to impart satisfactory containment, strength, and rigidity. For maximum strength, tank surfaces should be cambered and curved wherein practical. Fittings shall be made of nonferrous metal and securely bonded to the tank with epoxy resin. A fibrous glass reinforced plate or boss of the same thickness as the tank proper and 1½ times the outside dimensions of the fitting shall be used to strengthen the openings for fuel, fill and vent lines. Tanks shall be constructed of a minimum possible number of sections. Where two parts are joined there shall be a minimum of 2-inch overlap. Tanks exceeding 18 inches in any horizontal dimension shall be fitted with vertical baffle plates at intervals not exceeding 18 inches. Baffle plate flanges shall be integral and shall be of the same strength and stiffness as the tank wall. Flanges shall be bonded in place with mat and fabric. A suitable striking plate shall be installed at the bottom of the fuel measurement and fill pipe line. The laminate may be increased in thickness, in the way of the fill pipe. The cover of the fuel tank shall be through bolted as well as bonded. All fuel tanks shall bear legible, permanent labels, conveniently located for visual inspection, signifying full compliance with these specifications and including the following:

(*a*) Manufacturer's name and address.

(*b*) Date of construction and the inspector's initials.

(c) Wall thickness (in decimals of one inch) and capacity U.S. gallons.

(d) Material of construction: Polyester—Glass.

(4) Propeller shafting shall be of bronze or other suitable corrosion resistant materials. Fittings, pipes, connections, etc., shall be of high standard and good workmanship, and installed in accordance with good marine practice. The exhaust manifold shall be suitably insulated.

(5) All engines shall be permanently installed and shall be equipped with an efficient cranking system. This system shall be one that can be operated by hand, such as a hand cranking, hydraulic cranking, or inertia cranking system, acceptable to the Commandant. If an electric cranking system consisting of an electric starter motor, generator and batteries are fitted, it shall be in addition to the required acceptable cranking system, the battery or batteries shall be installed within the watertight engine box. The battery box shall be so constructed as to retain the battery in position when the lifeboat is in a seaway. The battery box shall be 1 inch longer and 1 inch wider than the battery and shall be lined with 4-pound lead flashed up 3 inches on the sides and ends. The battery box may be made of fibrous glass reinforced plastic using a fire-retardant epoxy resin. This type of battery box will not be required to be lead lined.

(i) *Engines.* The engine shall be a reliable, marine, compression-ignition type and shall be capable of propelling the fully equipped and loaded lifeboat at a sustained speed of not less than 6 knots through smooth water over a measured course. Provision shall be made for going astern. Sufficient fuel for 24 hours continuous operation at 6 knots shall be provided. The engine used in approved lifeboats shall be capable of being started without the use of starting aids at a temperature of 20° F., by the use of an acceptable cranking system. If water cooled, the engine shall be equipped with a closed fresh water cooling system. This system shall be cooled by a secondary medium, such as a water cooled heat exchanger.

(ii) The hydraulic cranking system shall be a self-contained system which will provide the required cranking forces and engine r.p.m. as recommended by the engine manufacturer. The capacity of the hydraulic cranking system shall provide not less than six cranking cycles. Each cranking cycle shall provide the necessary number of revolutions at the required r.p.m. to the engine to meet the requirements of carrying its full rated load within twenty seconds after cranking is initiated with intake air and hydraulic cranking system at 20° F. Capacity of the hydraulic cranking system sufficient for three cranking cycles under the above conditions, shall be held in reserve and arranged so that the operation of a single control by one person will isolate the discharged or initially used part of the system and permit the reserve capacity to be employed. The hydraulic cranking system shall consist of a hydraulic cranking motor, control valve, high pressure filter, 3-gallon reservoir (minimum), hand pump, and two accumulators (with protective relief valves) of a minimum capacity of 1½ gallons each. Each accumulator shall be fitted with an adequate pressure gauge (5,000 p.s.i.), located in such a position that it can readily be seen by the engine operator. The hand operated recharging pump shall be located to provide easy attachment and unobstructed operation of the portable handle. The installation of an engine-driven pump is recommended but is not required. The hydraulic cranking system shall meet the requirements outlined in §§ 54.01–1(e), 54.01–1(e)(3), 55.17, 57.05–1, 61.25–5(c),[1] 61.25–20, 61.30–5(d),[1] 61.30–10(c),[1] and 61.40–5 of this chapter.

(6) The following tools to perform emergency repairs and ordinary servicing shall be provided:

One 12 oz. ball peen hammer.
One screwdriver with 6-inch blade.
One pair of 8-inch slip joint pliers.
One 8-inch adjustable end wrench.
One Phillips or cross head screwdriver with a 6-inch blade.

(b) *Steel motor-propelled lifeboats without radio cabin or searchlight (Class 1).* (1) The engine shall be a reliable marine type and shall be in accordance with paragraph (a)(5)(i) of this section. If a starting battery is supplied, the engine shall be fitted with a marine type generator or alternator insulated as required by AIEE rules for marine service capable of charging the starting batteries. The battery box shall be in accordance with paragraph (a)(5) of this section.

(c) *Steel motor-propelled lifeboats without radio cabin but with searchlight (Class 2).* (1) The engine shall be of a reliable marine type and shall be in accordance with paragraph (a)(5)(i) of this section. The lifeboat shall be equipped with a searchlight constructed in accordance with Subpart 161.006 of this Subchapter Q (Specifications). The engine shall be fitted with a marine type generator or alternator insulated as required by AIEE rules for marine service capable of charging the batteries used for the searchlight as well as the starting batteries, if fitted. The battery box shall be in accordance with paragraph (a)(5) of this section.

(d) *Steel motor-propelled lifeboats with radio cabin and searchlight (Class 3).* (1) The engine shall be a reliable, marine type and shall be in accordance with paragraph (a)(5)(i) of this section. The engine shall be fitted with a marine type generator or alternator insulated as required by AIEE rules for marine service, capable of charging the batteries used for the radio and searchlight as well as the starting battery, if fitted.

(2) The radio and source of power for the radio and the searchlight shall be housed and protected from the elements by a suitable radio cabin. The entire installation shall comply with the requirements of the Federal Communications Commission, Rules Governing Stations on Shipboard in the Maritime Services. The radio cabin shall be of a size to contain the radio and source of power for the radio and searchlight, and the operator of the equipment. The top and sides of the radio cabin shall be watertight with the exception of the door which need not be watertight but shall be at least weathertight. The installation of the radio cabin shall take into consideration the concentration of weight in this area.

(3) The searchlight shall be of an approved type constructed in accordance with specification Subpart 161.006 of this subchapter and shall be securely mounted on top of the radio cabin.

(4) The batteries shall be installed in a box securely fastened inside the radio cabin. The battery box shall be in accordance with paragraph (a)(5) of this section.

§ 160.035–6 Construction of aluminum oar-, hand-, and motor-propelled lifeboats.

(a) *General.* Aluminum lifeboats shall comply with the general requirements for the construction and arrangement of steel lifeboats unless otherwise specified.

(b) *Specifications.* The following specifications and schedules of lifeboat material, including Tables 160.035–6, and 160.035–6(d)(1) shall be complied with unless other arrangements in matters of construction details, design, and strength equivalent in safety and efficiency are approved by the Commandant.

[1] The hydraulic system when used in lifeboats as engine cranking systems shall be leak-tested at the specified operating pressure after installation.

TABLE 160.035-6——ALUMINUM LIFEBOATS

Length of boat not over—	Bar keel, stem and sternpost	Gunwales [1]		Shell plating (Brown and Sharpe gage) [2]											
		Angle bar	Flanged flat bar	Independent air tanks				Built-in-air tanks							
	5086-H112	5086-H112	5086-H112	5052-H32		6061-T6		5052-H32				6061-T6			
	6061-T6	6061-T6	6061-T6	Side	Bottom	Side	Bottom	Side	Bottom	Inner shell	Bulkheads	Side	Bottom	Inner shell	Bulkheads
Feet	Inches	Inches	Inches												
12.0	2¼ x ¾	2¼ x 2 x 5/16	4 x 5/16	14	14	14	14	14	14	14	14	14	14	15	15
14.0	2¼ x ¾	2¼ x 2 x 5/16	4 x 5/16	14	14	14	14	14	14	14	14	14	14	15	15
16.0	2¾ x ¾	2½ x 2¼ x 5/16	4½ x 5/16	14	14	14	14	14	14	14	14	14	14	15	15
18.0	3 x ¾	2½ x 2¼ x 5/16	4½ x 5/16	14	14	14	14	14	14	14	14	14	14	15	15
20.0	3 x 1	2¾ x 2½ x 5/16	5 x 5/16	13	13	13	13	13	13	14	14	13	13	14	14
22.0	3 x 1	2¾ x 2½ x 5/16	5 x 5/16	12	12	12	12	13	12	14	14	13	13	14	14
24.0	3½ x 1	2¾ x 2½ x ⅜	5 x ⅜	11	11	11	11	11	11	13	13	12	12	14	14
26.0	3½ x 1	2¾ x 2½ x ⅜	5 x ⅜	10	9	11	10	11	10	12	12	11	11	13	13
28.0	3¾ x 1	2¾ x 2½ x ⅜	5 x ⅜	9	8	10	9	10	9	12	12	11	10	13	13
30.0	4 x 1	3 x 2¾ x ⅜	5½ x ⅜	9	8	9	8	9	8	11	11	10	9	12	12
32.0	4 x 1	3 x 2¾ x ⅜	5½ x ⅜	8	7	9	8	9	8	11	11	10	9	12	12
34.0	4 x 1	3 x 2¾ x ⅜	5½ x ⅜	8	7	8	7	8	7	10	10	9	8	11	11
36.0	4 x 1	3 x 2¾ x ⅜	5½ x ⅜	7	6	8	7	8	7	10	10	9	8	11	11

[1] Extruded shapes having substantially the scantlings of the angle bar gunwale are permitted. Where extruded shapes are used, a nosing as per § 160.035-3(j) is not required provided the extruded shape has at its heel a generously rounded curve.

[2] Brown and Sharpe gage decimal values: 15 gage equals 0.05707; 14 gage equals 0.06408; 13 gage equals 0.07196; 12 gage equals 0.08081; 11 gage equals 0.09074; 10 gage equals 0.1019; 9 gage equals 0.1144; 8 gage equals 0.1285; 7 gage equals 0.1443; and 6 gage equals 0.1620.

(c) *Materials.* (1) Plating for shell, air tanks, etc., shall be as shown in Table 160.035-6.

(d) *Riveting.* (1) Where riveting is employed in the construction of the shell, double riveting shall be used. The centers of the rivets in the row nearest the edge of the sheet shall not be less than ⅜ inch nor more than ½ inch from the edge. Rivets shall be staggered with not less than 18 rivets to the foot and shall be countersunk head or button head rivets. The diameter of the rivets shall be not less than that shown in Table 160.035-6(d)(1).

(2) The rivet alloy shall be 6053-T61 for all applications.

(3) Riveting of the shell plating to the keel, stem and sternpost shall be button head rivets, staggered with not less than 12 rivets to the foot. The distance from the edge of the plate to the center of the rivets in the nearest row shall be not less than ½ inch nor more than ¾ inch. Rivets connecting the shell to the gunwale shall be spaced not more than 3 inches on centers. The size of the rivets for connecting the shell plating to the keel, stem, and sternpost and gunwale shall be not less than that shown in Table 160.035-6(d)(1).

(4) The connection of the floors to the shell shall be made by a single row of rivets of a size not less than that shown in Table 160.035-6(d)(1).

TABLE 160.035-6(d)(1)—RIVETING

Length of boats, not over— (feet)	Shell (inch No./ft.)	Shell to keel (inch No./ft.)	Floors	Gunwales (inch No./ft.)
12.0	5/16@18	5/16@12	5/16" @4 per foot or 5/11" @6 per foot.	5/16@4
14.0	5/16@18	5/16@12		5/16@4
16.0	5/16@18	5/16@12		5/16@4
18.0	5/16@24	5/16@12		5/16@4
20.0	5/16@24	5/16@12		5/16@4
22.0	5/16@24	5/16@12		5/16@4
24.0	5/16@24	5/16@12		3/8@4
26.0	5/16@24	5/16@12		3/8@4
28.0	5/16@24	5/16@12		3/8@4
30.0	5/16@24	5/16@12		3/8@4
32.0	5/16@24	5/16@12		3/8@4
34.0	5/16@24	5/16@12		3/8@4
36.0	5/16@24	5/16@12		3/8@4

(e) *Welding.* (1) Welding may be substituted for riveting in the following locations: Hoist plate to keel, disengaging gear grace plate to stem and sternpost, rudder attachment fitting to the sternpost, and the propeller shaft stern tube to the sternpost. When using 6061-T6 aluminum, the welded area is to be heat-treated and checked by X-ray to assure a satisfactory weld. When using 5086-H 112 aluminum, the welded area is to be checked by a nondestructive test method such as X-ray, ultrasonic waves or fluorescent materials, to assure a satisfactory weld. Other methods of checking aluminum welds will be given separate consideration. The welding shall be performed by a welder qualified by the U.S. Coast Guard, American Bureau of Shipping, or U.S. Navy Department, and only suitable electrodes shall be used. Details of the joints shall be indicated on the construction drawings submitted for approval.

(f) *Keel, stem and sternpost.* (1) Dimensions shall be not less than those shown in Table 160.035-6.

(g) *Shell plating.* (1) The thickness of the shell plating shall be not less than that shown in Table 160.035-6.

(2) *Doubler plates.* (i) The doubler plates shall be fitted on all lifeboats where the shell is liable to damage, wear, or corrosion from contact with chocks, gripes, etc. Doublers shall be of the same alloy and not less in thickness than the bottom plating. When the doublers are installed, they shall not be less than 6 inches in width.

(ii) The doublers shall be fastened to the shell plating with the same rivets as required for the shell plating and they shall be staggered with no less than 18 rivets per foot around all edges of the doubler plate.

(iii) Prior to riveting, the complete surface between the shell plating and the doublers shall be treated with suitable insulating compounds. After riveting the faying joints shall be caulked.

(iv) All riveted seams and butt laps, laps of plating on the keel, gunwale, stem and sternpost, shall be made over boundary bar tape such as: P.A.W. tape, Trantex V-20 vinyl tape, EC-1202 Butyl rubber tape, Alumilastic or suitable equivalent nonabsorbing materials. In general the insulating tape should be 1¼ to 1½ inches in width. Under no circumstances should red lead be applied nor should an absorbent felt be used as tape in the riveted joint whether or not it is saturated with red lead.

(h) *Gunwales.* (1) Dimensions of angular gunwales shall be not less than that shown in Table 160.035-6.

(2) Flanged plates made from flat bars, dimensions of which shall not be less than that shown in Table 160.035-6, may be substituted for angular gunwales.

(i) *Dissimilar metals.* (1) Where in the construction of aluminum lifeboats the use of dissimilar metals are employed such as, the installation of the mechanical disengaging gear, hand propelling gear, or engine, suitable insulation between the aluminum and these metals shall be used. Porous or absorbent materials shall not be used as insulating materials. Only non-porous materials such as plastics, rubber or neoprene base compounds, or micarta shall be used. Other suitable material will be given separate consideration. Fasteners used in joining dissimilar metals together shall be of the type that will minimize corrosion.

§ 160.035–7 Construction of wood oar-, hand-, and motor-propelled lifeboats.

(a) Wooden lifeboats are prohibited on tank vessels. No specification requirements for new construction are in effect at this time.

§ 160.035–8 Construction of fibrous glass reinforced plastic (F.R.P.), oar-, hand-, and motor-propelled lifeboats.

(a) *General requirements.* (1) Plastic lifeboats shall comply with the general requirements for the construction and arrangement of steel lifeboats, except that unless otherwise specified, materials, scantlings, methods of construction, fastenings, methods of attachment of component parts, and other specific construction details may be varied by the builder in order to produce a structurally sound boat meeting in every respect recognized standards of first class construction and one which will satisfactorily meet the performance requirements set forth in this subpart.

(2) Fibrous glass reinforced plastic lifeboats may be of the following categories of hull construction:

A—Single piece, outer hull construction.
B—Two piece, outer hull construction.
C—Single piece, inner hull construction.
D—Two piece, inner hull construction.
E—Multi-piece, inner hull construction.

(b) *Specific requirements.* (1) *Resin.* The resin shall be qualified under the requirements of Military Specification MIL–R–21607. Class A resin shall be fire retardant without additives. Class B resin shall be fire retardant with additives. When Class B resin is used for the prototype lifeboat, additives for fire retardancy shall not be used in order to obtain a translucent laminate for inspection purposes. This prototype test lifeboat will not be stamped approved, nor will it be acceptable for merchant vessels. Whichever class of resin the manufacturer decides to use for his prototype lifeboat, shall be used in his production lifeboats. A note to this effect shall be included in his specifications and drawings for this particular size and type lifeboat.

(2) *Glass reinforcement.* All glass, cloth, mat, or woven roving shall be of a type having good laminated wet strength retention.

(3) *Laminate.* All exposed surfaces of the finished laminate shall present a smooth finish, and there shall be no protruding surface fibers, open voids, pits, cracks, bubbles or blisters. The laminate shall be essentially free from resin starved or over impregnated areas, and no metal staples, paper tape or other foreign matter shall remain in the finished laminate. The entire laminate shall be fully cured and free of tackiness, and shall show no tendency to delaminate, peel, or craze in any overlay. For the prototype boat of each design made by each individual manufacturer, the lay up shall be made with unpigmented clear resins so that all details of construction will be visible for inspection.

(4) *Weights of F.R.P. lifeboats.* (i) The variations in weight between the fibrous glass reinforced plastic in the prototype F.R.P. lifeboat and the fibrous glass reinforced plastic in the production F.R.P. lifeboat shall be within 5 percent. This weight shall be for the F.R.P. sections only and shall not include the weight of any hardware or equipment.

(ii) When assembling two similar sections as indicated by categories B and D of paragraph (a)(2) of this section, the weights of the matching F.R.P. pieces shall be within 5 percent of each other.

(iii) The recorded weights of the items indicated in subdivisions (i) and (ii) of this subparagraph shall be kept by the manufacturer, with each boat listed by size, type, and serial number.

§ 160.035–9 Cubic capacity of lifeboats.

(a) *Definitions.* The following definitions apply to the measurement of a lifeboat to determine its cubic capacity.

(1) *Length (L).* The length is the distance in feet from the inside of the plating or planking at the stem to the corresponding position at the stern. In the case of a boat with a square stern, the after terminus is the inside of the transom.

(2) *Breadth (B).* The breadth is the distance in feet over the plating or planking at the point where the breadth of the boat is greatest.

(3) *Depth (D).* The depth is the distance in feet amidships inside the plating from the top of the keel to the level of the gunwale. The depth used for calculating purposes shall not exceed 45 percent of the breadth.

(4) *Sheer.* Lifeboats shall have a sheer at each end at least equal to 4 percent of the length, and a sheer at the quarter points of at least 1 percent of the length. If less sheer is provided, the depth used to determine the cubic capacity shall be assumed to be reduced so as to achieve this minimum sheer.

(b) *Formula.* The cubic capacity shall be determined by the following formula:

$$L \times B \times D \times 0.64$$

In the case of lifeboats with unusual proportions, the Commandant may require that the cubic capacity be calculated by exact measurements from which the exact seating capacity may be determined.

(c) *Hand-propelled lifeboat.* The cubic capacity of a hand-propelled lifeboat shall be determined in the same manner as an oar-propelled lifeboat and then deducting from the gross volume, a volume equal to that occupied by the hand-propelling gear.

(d) *Motor-propelled lifeboat.* The cubic capacity of a motor-propelled lifeboat shall be determined in the same manner as an oar-propelled lifeboat and then deducting from the gross volume, a volume equal to the engine box and accessories, and when carried, the radio cabin, searchlight, and their accessories. The volume of such equipment extending above the sheer line need not be deducted.

§ 160.035–10 Number of persons allowed in lifeboats.

(a) The maximum number of persons for which the lifeboat may be rated is determined as noted in subparagraphs (1), (2), and (3) of this paragraph. The smallest number obtained is the number to be used.

(1) The number of persons which a lifeboat shall be permitted to accommodate shall be equal to the greatest whole number obtained by dividing the capacity in cubic feet by the factor shown in Table 160.035–10(a). The net cubic capacity shall be determined by § 160.035–9(b).

TABLE 160.035–10(a)

Length in feet—		Factor
Of—	But less than—	
	18	14
18	20	13
20	22	12
22	24	11
24	Or over	10

(2) The number of persons permitted in the lifeboat shall not exceed the number for which seating space is provided as determined by drawing figures to scale of a size as noted in Figure 160.035–10(a)(2) on an arrangement plan of the lifeboat.

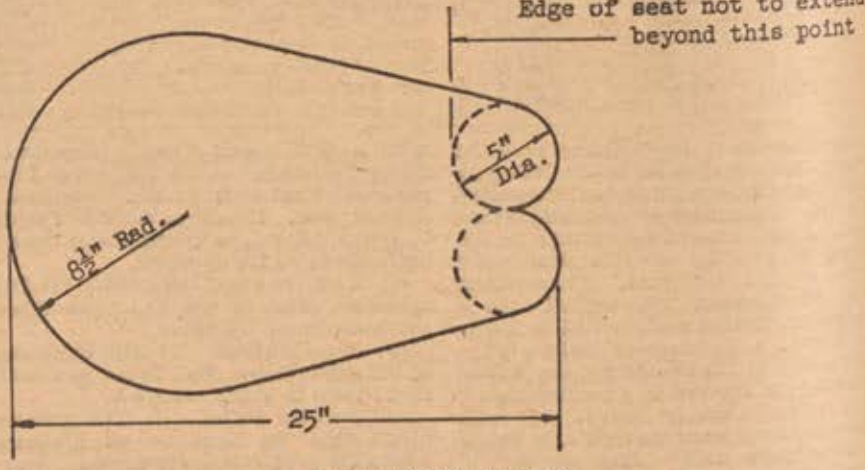


FIGURE 160.035–10(a)(2)

(3) The number of persons permitted in the lifeboat shall not exceed the number of persons wearing life preservers which can be seated in the lifeboat without interfering with the use of the oars or the operation of other propulsion equipment.

§ 160.035–11 Inspection and testing of lifeboats.

(a) *General.* Coast Guard marine inspectors shall be admitted to any place in the builder's factory where work is done on these lifeboats or component materials or parts. Lifeboats shall be inspected during the course of construction to determine that the arrangements and materials entering into the construction are in accordance with approved plans, and to insure that the workmanship is of good quality. Samples of materials entering into construction may be taken by the marine inspectors for such tests as may be deemed necessary at any time there is any question as to suitability or adequacy of any material or arrangement.

(b) *Preapproval tests.* Before approval is granted to any design of lifeboat, the following tests shall be made by a marine inspector:

(1) *Strength test.* The light lifeboat shall be suspended by shackles at the bow and stern, or by means of the releasing gear, and the length, beam, and depth shall be measured. Weights shall then be added to equal the weight of the equipment, food, water, etc., and persons for which the boat is to be approved, and the length, beam, and depth measured. Additional weight shall then be added so that the suspended load is 25 percent greater than the weight of the fully equipped and loaded lifeboat and the measurements repeated. All weights shall then be removed and the measurements rechecked. There shall be no appreciable set as a result of this test.

(2) *Flooding test.* Lifeboats shall be flooded while open to the sea to determine the amount of buoyancy necessary to float the complete boat including releasing gear but with no equipment, provision lockers, water tanks, or fuel tanks aboard. If provision lockers, water tanks, and fuel tanks cannot be removed, they should be flooded or filled to the final waterline. Lifeboats fitted with watertight stowage compartments to accommodate individual drinking water containers shall have these individual containers aboard and placed in the stowage compartments which shall be sealed watertight during the flooding test. Ballast of equivalent weight and density should be substituted for the motor, shaft, propeller, radio, battery, searchlight, etc., if they are to be installed.

(i) *Boats with independent buoyancy tanks or buoyancy units.* The estimated amount of buoyancy to just float the boat in this condition should be fitted symmetrically aboard the lifeboat, and then the boat flooded. If the tops of the gunwales at their lowest point do not clear the surface of the water, the buoyancy shall be increased as necessary. An additional volume of buoyancy, or buoyancy units, equal to at least one-tenth the cubic capacity of the lifeboat shall be provided.

(ii) *Boats with built-in buoyancy compartments.* When flood testing lifeboats with built-in buoyancy compartments, weights shall be placed in the bottom of the lifeboat to counteract the buoyancy provided for the persons to be carried. The amount of weight required per person carried shall be as follows:

Materials	Weight per person (pounds)
Iron or steel	72
Lead	69
Concrete	110

Other impervious material may be used if more convenient. The weight per person required is determined from the formula $W=\frac{63d}{d-63}$ where d is the density of material in pounds per cubic foot. (Sandbags should not be used for this purpose inasmuch as their weight under water is not readily predictable.) If the lifeboat weighted as above does not float with the gunwale at the lowest point just clear of the surface of the water, unit air tanks should be slipped beneath the thwarts until the gunwales do clear the surface of the water. The additional air tankage required shall be incorporated in the design of the lifeboat.

(3) *Seating capacity test.* The lifeboat shall be fully loaded with equipment, and in this condition the number of persons for which the lifeboat is to be approved shall be seated, in accordance with the seating plan required in § 160.035–14(a). All persons shall wear an approved life preserver and it shall be demonstrated by actual test that there is sufficient room to row the boat without interference.

(4) *Freeboard test.* Freeboards shall be measured to the low point of the sheer with the lifeboat in light condition with neither equipment nor persons aboard, and in the loaded condition with full equipment and persons aboard.

(5) *Stability test.* Upon the conclusion of the seating test, all persons on one side of the centerline shall disembark. The remaining people should sit upright and not move from their original positions. (Not less than one-half in total number of persons should remain in the lifeboat.) Freeboard to the low point of sheer shall then be measured. This freeboard should, in general, be not less than 10 percent of the depth of the lifeboat.

(c) Motor-propelled lifeboats shall be subjected to the same tests as required for an oar-propelled lifeboat. In addition, speed tests over a measured course and fuel consumption tests on a time basis shall be made to determine that the fully loaded lifeboat can maintain a speed of 6 knots for all classes of motor-propelled lifeboats, and that there is sufficient fuel for at least 24 hours for each class of motor-propelled lifeboat at its respective speed. A 4-hour endurance trial shall be conducted with the fully loaded lifeboat at the RPM attained in the speed test in order to insure that there is no overheating, undue vibration, or other condition which would warrant the belief that the lifeboat could not maintain its proper speed for 24 hours. The time consumed in conducting the speed and fuel consumption tests may be counted toward the 4-hour endurance test. It shall be demonstrated that all engines installed in motor lifeboats can be started by the acceptable cranking system installed with no previous warming up period.

(d) Hand-propelled lifeboats shall be subjected to the same tests as required for an oar-propelled lifeboat. In addition, a test shall be made to assure that the lifeboat can be satisfactorily maneuvered with the hand-propelling gear. A speed of at least three knots shall be achieved in both light and load condition over a measured course of not less than 1,000 feet.

§ 160.035–12 Additional preapproval tests required for F.R.P. lifeboats.

(a) *General.* These tests are required in addition to the preapproval tests required for steel lifeboats in § 160.035–11. The prototype boat of each size or design submitted will be required to perform satisfactorily in the following tests which will be made in the presence of a marine inspector.

(b) *Strength test.* The following tests described in this paragraph are in lieu of the strength test in § 160.035–11(b)(1):

(1) *Suspension tests.* The light lifeboat shall be suspended freely from the releasing gear and the length, beam, and depth measured. Weights shall then be added to equal the weight of the equipment, food, water, and persons to be carried (see § 160.035–11(b)(2)(ii)), and the length, beam, and depth measured. Additional weights shall then be added so that the suspended load is 25, 50, 75, and 100 percent greater than the weight of the fully equipped and loaded lifeboat and the measurements taken at each 25 percent increments. (Water may be used for all or any portion of the weight if desired.) All weights shall then be removed and final measurements taken. There shall be no fractures or other signs of excessive stress and no appreciable set as a result of this test.

(2) *Chock test.* The light lifeboat shall be placed on blocks located under the keel at the quarter points and measurements of length, beam, and depth taken. The boat shall be flooded with water equal to the weight of all equipment, food, water, and persons to be carried and measurements of length, beam, and depth taken again. Additional measurements of 25, 50, 75, and 100 percent of the weight of the fully equipped and loaded lifeboat shall be added and the measurements taken at 25 percent increments. If the boat becomes full of water before 100 percent overload is reached, no additional weight need be added, and the last deflection measurements with the boat under load shall be taken at this point. The boat shall be drained and final measurements taken. There shall be no fractures or other signs of excessive stress and no appreciable set as a result of this test.

(3) *Swing test.* The boat shall be loaded with weights equal to the weight

of all equipment, food, water and persons to be carried. It shall then be suspended by the releasing gear with falls 20 feet in length so arranged that when hanging freely the gunwale on one side of the boat is approximately 2 inches from a stationary concrete or steel wall or other structure of similar construction and rigidity. The boat shall then be hauled outboard a horizontal distance of 8 feet from its original position. From this point, the boat shall be allowed to freely swing inboard and strike the wall along one side. There shall be no damage which would render the boat unserviceable.

(4) *Drop test.* The boat shall be loaded with weights equal to the full weight of all equipment, food, water and persons to be carried. The boat shall then be suspended freely from the releasing gear and shall be dropped in a free fall into the water from a height of 10 feet. There shall be no damage which would render the boat unserviceable.

(5) *Thwart test.* A 200-pound sand bag shall be dropped from a height of 6 feet on the center of each thwart span. The thwarts shall not fracture or otherwise be rendered unserviceable.

(6) *Towing test.* With a towline rigged around the forward thwart in the same manner as the sea painter is normally rigged, the fully loaded lifeboat shall be towed at least 1,000 yards at a speed of not less than 5 knots. The boat shall exhibit satisfactory towing characteristics and there shall be no appreciable damage to the thwart.

(7) *Tanks and lockers.* Equipment tanks and watertight lockers shall be tested with not less than 1.0 p.s.i. of air pressure both before and after the tests described in subparagraphs (1) through (6) of this paragraph.

§ 160.035–13 Testing and inspection after approval.

(a) *General.* After the design of a lifeboat has been approved subsequent lifeboats of the same design shall be individually inspected and tested as noted in § 160.035–11(a) for metal lifeboats and § 160.035–12(a) for F.R.P. lifeboats. In addition, motors and hand-propelling gear when installed shall be operated in the "ahead", "neutral", and "astern" positions. If mechanical disengaging apparatus is fitted, it shall be tested by suspending the lifeboat loaded with deadweight equivalent to the number of persons allowed in the lifeboat (165 pounds per person) together with the weight of the equipment, plus 10 percent of the total load, including the weight of the lifeboat. The release lever shall then be thrown over with this load suspended until the lifeboat is released. The apparatus shall be capable of being operated freely by one man, without the use of aids or undue force to the satisfaction of the marine inspector. (This test may be conducted ashore by suspending the lifeboat just clear of the ground.)

(b) *Additional production inspection and tests for F.R.P. lifeboats*—(1) *Inspection requirements.* Each production model fibrous glass reinforced plastic lifeboat shall as a condition to its being accepted as Coast Guard approved equipment, be examined by a marine inspector at the following stages in its manufacture:

(i) When the major, individual components of the shell and inner hull or buoyancy casing are completed but before they are assembled together. At this stage the marine inspector shall satisfy himself that these components comply with the approved plans and specifications by visual inspection, thickness measurements and comparison of the weights of the components with the weights recorded for the same components in the prototype.

(ii) At the time the internal buoyancy is installed. If block plastic foam is used, it shall be inspected after it has been cut to size and shaped but before it is inserted and covered. The installation shall be completed in the presence of the marine inspector and he shall verify that the required amount is used by weighing the material. If foamed-in-place plastic foam is used, the marine inspector shall be present during the foaming operation. A sample of the foam shall be retained outside the boat and when it sets it shall be used to make a density determination of the material.

(iii) When the boat is completed. At this stage the marine inspector shall check the scantlings of the minor components and the overall compliance with the plans. The manufacturer shall certify that the materials used are in accordance with the approved bill of materials.

(2) *Test requirements.* After the inspections listed in subparagraph (1) of this paragraph are completed, the following tests are to be carried out to the satisfaction of the marine inspector:

(i) The boat shall be suspended freely from the releasing gear and the length, breadth and depth measured. The boat shall then be flooded with water equal to 1½ times the weight of the boat, persons, equipment, and provisions and fuel (if motor driven) less the weight of the boat. This is represented by the following formula:

$$\text{Water added} = 1.5 \times (\text{empty boat} + \text{equipment} + \text{provisions} + \text{fuel} + \text{people}) - \text{empty boat}$$

The length, breadth and depth shall be measured in this loaded condition and, again, after the load has been removed. The loaded deflections and the permanent deformations shall not significantly exceed those recorded for the prototype in the pre-approval tests. Also, while flooded, the exterior of the hull shall be examined for leaks or other defects. After the boat is drained, the attachment of the release gear shall be carefully examined.

(ii) All provision tanks shall be tested by a static head above the tank top of 2 feet of water without showing leakage or permanent deformation.

(iii) The plastic fuel tanks shall be tested by a static head above the tank top of 10 feet of water without showing leakage or permanent deformation.

(c) *Marking.* (1) A corrosion resistant nameplate shall be affixed at the bow of each lifeboat on which is stamped the name of the manufacturer, serial number, approval number, dimensions of the lifeboat, cubic capacity, buoyancy capacity, net weight of the boat in Condition A and Condition B, the number of persons for which the lifeboat is approved, together with the marine inspector's initials, the date, and the letters U.S.C.G. *Condition A* includes buoyancy and water tanks and provision stowage compartments but no equipment, provisions, water or persons. *Condition B* includes full required provisions and equipment, persons allowed at 10 cubic feet or by seating test whichever is less at 165 pounds and 3 quarts of water (6.25 pounds)—per person.

§ 160.035–14 Procedure for approval of lifeboats.

(a) Before action is taken on any design of lifeboat, plans covering fully the arrangement and construction of the lifeboat, material specifications, together with a lines drawing, stowage arrangement, seating arrangement, and other details shall be submitted to the Commandant through the Commander of the Coast Guard District in which the lifeboat is built. The plans for approval must be detailed to a degree that the lifeboat can be constructed from the plans submitted.

(b) If the drawings required in paragraph (a) of this section are satisfactory, the manufacturer shall notify the Commander of the Coast Guard District in which the lifeboat is built in writing when fabrication is to commence. A marine inspector will be assigned to witness the construction procedure in accordance with the plans, verify the tests required by § 160.035–11 for metal lifeboats and § 160.035–12 for additional tests required for F.R.P. lifeboats. Also, the manufacturer shall provide the necessary tools and facilities required to conduct the tests. The Coast Guard shall have the right to require such other additional tests as reasonably may be deemed necessary, either with the completed boat or component parts, depending upon the particular construction methods and materials used by the builder, or any unusual conditions or circumstances which may arise during the construction or testing.

(c) At the time that the tests are successfully completed, the manufacturer shall present to the marine inspector four corrected copies of the plans noted in paragraph (a) of this section, including any corrections, changes, or additions which may have been found necessary during construction or testing. If the manufacturer desires more than one set of approved plans, additional copies shall be submitted at that time.

(d) Upon receipt of corrected drawings and satisfactory test reports, the Commandant will issue a certificate of approval. No change shall be made in the design or construction without first receiving permission of the Commandant via the Commander of the Coast Guard District in which the lifeboat is built.

Subpart 160.036—Signals, Distress, Hand-Held Rocket-Propelled Parachute Red Flare, for Merchant Vessels

45. The authority note for Subpart 160.036 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.036 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167-20, June 18, 1956, 21 F.R. 4894; 167-38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.037—Signals, Distress, Hand, Orange Smoke, for Merchant Vessels

46. The authority note for Subpart 160.037 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.037 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167-38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.038—Magazine Chests, Portable, for Merchant Vessels

47. The authority note for Subpart 160.038 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.038 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 395, 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; 167-20, June 18, 1956, 21 F.R. 4894; 167-38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.040—Line-Throwing Appliance, Impulse-Projected Rocket Type (and Equipment), for Merchant Vessels

48. The authority note for Subpart 160.040 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.040 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167-20, June 18, 1956, 21 F.R. 4894; 167-38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.041—Kits, First-Aid, for Merchant Vessels

49. The authority note for Subpart 160.041 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.041 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167-20, June 18, 1956, 21 F.R. 4894; 167-38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.042—Skids, Liferaft, for Merchant Vessels

50. The authority note for Subpart 160.042 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.042 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167-20, June 18, 1956, 21 F.R. 4894; 167-38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.043—Jackknife (With Can Opener) for Merchant Vessels

51. The authority note for Subpart 160.043 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.043 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 395, 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; 167-20, 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 160.044—Pumps, Bilge, Lifeboat, for Merchant Vessels

52. The authority note for Subpart 160.044 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.044 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167-20, June 18, 1956, 21 F.R. 4894; 167-38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.050—Buoys, Life, Ring, Unicellular Plastic

53. The authority note for Subpart 160.050 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.050 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, secs. 6, 17, 3, 54 Stat. 164, as amended, 166, as amended, 347, as amended, sec. 3, 70 Stat. 152, sec. 4, 67 Stat. 462, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 367, 526e, 526p, 1333, 390b, 43 U.S.C. 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; 167-15, Jan. 3, 1955, 20 F.R. 840; 167-20, June 18, 1956, 21 F.R. 4894; 167-38, Oct. 26, 1959, 24 F.R. 8857.

54. Section 160.050-1 is amended by adding subparagraphs (2) and (3) to paragraph (a) and by revising paragraph (b) to read as follows:

§ 160.050-1 Applicable specifications.

(a) *Specifications.* * * *

(2) Federal Standard:

No. 595—Colors.

(3) Coast Guard specification:

164.015—Plastic foam, unicellular, buoyant, sheet and molded shapes.

(b) *Copies on file.* Copies of the specifications referred to in this section shall be kept on file by the manufacturer, together with the certificate of approval. The Military Specifications may be obtained from the Commanding Officer, Naval Supply Depot, 5801 Tabor Avenue, Philadelphia, Pa., 19120. The Federal Standard may be obtained from the Business Service Center, General Services Administration, Washington, D.C., 20407. The Coast Guard specification may be obtained from the Commandant, U.S. Coast Guard, Washington, D.C., 20226.

* * * * *

55. Section 160.050-3 is amended to read as follows:

§ 160.050-3 Materials.

(a) *General.* All exposed materials shall be resistant to oil or oil products, salt water and anticipated weather conditions encountered at sea.

(b) *Unicellular plastic.* The unicellular plastic material used in fabrication of the buoy body shall meet the requirements of Subpart 164.015 of this subchapter for Type C material. The buoy's body shall be finished with two coats of vinyl base paint. The ring life buoys shall be either international orange (Color No. 12197 of Federal Standard 595) or white in color and the colorfastness shall be rated "good" when tested in accordance with Federal Specification CCC-T-191 Methods 5610, 5630, 5650, and 5660.

(NOTE: On vessels on an international voyage, all ring life buoys shall be international orange in color.)

(c) *Grab line.* The grab line shall be ⅜-inch diameter polyethylene, polypropylene, or other suitable buoyant type synthetic material having a minimum breaking strength of 1,350 pounds.

(d) *Beckets.* The beckets for securing the grab line shall be 2-inch polyethylene, polypropylene, nylon, saran or other suitable synthetic material having a minimum breaking strength of 585 pounds. In addition, polyethylene and polypropylene shall be weather-resistant type which is stabilized as to heat, oxidation, and ultraviolet light degradation.

(e) *Thread.* The thread shall be nylon conforming to Type II, Size 4, Class 2, of Specification MIL-T-7807. Alternate threads will be given special consideration.

56. Section 160.050-4 is amended by revising paragraphs (c) and (d) to read as follows:

§ 160.050-4 Construction and workmanship.

* * * * *

(c) *Grab line.* The finished length of the grab line shall be four times the outside diameter of the buoy. The ends of the grab line shall be securely and neatly spliced together, or shall be hand whipped with a needle and both ends securely and smoothly seized together. The grab line shall encircle the buoy and shall be held in place by the beckets.

The spliced or seized ends of the grab line shall be placed in the center of the width of one of the beckets.

(d) *Beckets.* Each ring buoy shall be fitted with four beckets located at equidistant points about the body of the buoy. The beckets shall be passed around the body of the buoy with the free ends to the outside, and shall be securely cemented to the buoy with a suitable waterproof adhesive which is compatible with the unicellular plastic used in the buoy body. The ends of the beckets shall be turned under at least 1 inch, one end to go around the grab line, and the other to be laid flat against the first end. The beckets shall then be stitched to the grabline with not less than five hand stitches made with two parts of thread or machined stitched with not less than three stitches per inch. Alternate methods for rigging beckets and grab line will be given special consideration.

* * * * *

57. Section 160.050–5 is amended to read as follows:

§ 160.050–5 Sampling, tests, and inspection.

(a) *General.* A marine inspector shall examine all ring life buoys at the place of manufacture for compliance with this specification. Ring life buoys on a lot basis shall be tested for strength, resistance to damage, and buoyancy in accordance with the methods set forth in paragraphs (c), (d), and (e) respectively of this section with the exception that the test for resistance to damage may be omitted at the discretion of the marine inspector. If the marine inspector has any doubt regarding compliance with this specification, he may make such other examinations and tests as he may deem necessary. The manufacturer shall provide a suitable place and necessary apparatus for the use of the marine inspector in conducting tests at the place of manufacture, and shall provide labor for all handling of ring buoys requisite to inspection.

(b) *Lot size and sampling.* A lot shall consist of not more than 500 ring life buoys. A new lot shall be started with any change or modification in material used or manufacturing methods employed. When a lot of ring buoys is ready for inspection, the manufacturer shall notify the Commander of the Coast Guard District in which the factory is located, who will assign a marine inspector to the plant for the purpose of making the necessary tests and inspections. From each lot of ring life buoys the marine inspector shall select samples in accordance with the following Table 160.050–5(b) to be tested for strength and buoyancy in accordance with paragraphs (c) and (e) respectively of this section:

TABLE 160.050–5(b)—SAMPLING FOR TESTS

Lot size	Number of ring buoys in sample
100 and under	1
101 to 200	2
201 to 300	3
301 to 500	4

(c) *Strength test.* The buoy body shall be suspended by a 2-inch-wide strap. A similar strap shall be passed around the opposite side of the buoy and a 200-pound weight suspended by it from the buoy. After 30 minutes, the buoy body shall be examined, and there shall be no breaks, cracks or permanent deformation.

(d) *Resistance to damage test.* The buoy body shall be dropped three times from a height of 6 feet onto concrete, and there shall be no breaks or cracks in the body.

(e) *Buoyancy*—(1) *Buoyancy test method.* To obtain the buoyancy of the buoy, proceed as follows:

(i) Weigh iron or other weight under water. The weight shall be more than sufficient to submerge the buoy.

(ii) Attach the iron or other weight to the buoy and submerge with the top of the buoy at least 2 inches below the surface for 48 hours.

(iii) After the 48-hour submergence period, weigh the buoy with the weight attached while both are still under water.

(iv) The buoyancy is computed as subdivision (i) minus subdivision (iii) of this subparagraph.

(2) *Buoyancy required.* The buoys shall provide a buoyancy of not less than 16½ pounds for the 20- and 24-inch sizes, and not less than 32 pounds for the 30-inch size.

(f) *Lot acceptance and rejection.* When the marine inspector has satisfied himself that the ring life buoys in the lot are of a type officially approved in the name of the company, and that such ring life buoys meet the requirements of this specification, he may complete the name plate described in § 160.050–6 with the necessary information. If any ring life buoys are found unsatisfactory, they or the entire lot may be rejected at the discretion of the marine inspector. Rejected individual ring life buoys or the entire lot may be re-worked and resubmitted for inspection at the discretion of the District Commander.

§ 160.050–6 [Amended]

58. Section 160.050–6 *Marking* is amended by changing in the first sentence of paragraph (a) the word "straps" to "beckets".

§ 160.050–7 [Amended]

59. Section 160.050–7 *Procedure for approval* is amended by correcting the address in the first sentence of paragraph (a) by changing from "Washington, D.C." to "Washington, D.C., 20226", and by changing the reference in paragraph (b) from "§ 160.050–5 (b), (c), and (d)" to "§ 160.050–5 (c), (d), and (e)".

Subpart 160.051—Inflatable Liferafts

60. The authority note for Subpart 160.051 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.051 interpret or apply R.S. 4488, as amended, R.S. 4491, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 481, 489, 367, 390b, 50 U.S.C. 198; E.O. 11239; Treasury Department Orders 120, July 31, 1959, 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.

61. Section 160.051–1 is amended to read as follows:

§ 160.051–1 Applicable specifications.

(a) *Specifications.* The following specifications, of the issue in effect on the date inflatable liferafts are manufactured, form a part of this subpart for guidance purposes only:

(1) *Military specifications:*

MIL–L–19496 (Ships)—Lifeboat, CO, inflatable Mark 5, 15-person capacity.

MIL–C–17415 (Ships)—Cloth, coated, and webbing, inflatable boat and miscellaneous use.

(b) *Copies on file.* Copies of the specifications referred to in this section, as well as the various reference specifications forming a part thereof, shall be kept on file by the manufacturer, together with the approved plans, specifications, and certificate of approval. They shall be kept for a period consisting of the duration of approval and 5 years after termination of approval, except that the approval certificate shall be returned for cancellation immediately following the termination date. The Military Specifications may be obtained from the Commanding Officer, Naval Supply Depot, 5801 Tabor Avenue, Philadelphia, Pa., 19120.

62. Section 160.051–3(b) is amended to read as follows:

§ 160.051–3 Types and sizes.

* * * * *

(b) *Sizes.* Inflatable liferafts shall be not less than 4 (6 for vessels on international voyages) nor more than 25-person sizes. An inflatable liferaft, complete with case and required emergency equipment, shall not weigh more than 400 pounds.

63. Section 160.051–4 is amended by revising paragraphs (f), (g) and (i), and by adding a new paragraph (j), which read as follows:

§ 160.051–4 Design.

* * * * *

(f) *Containment.* For each type of raft, manufacturers shall design and provide suitable containment constructed so as to be capable of withstanding hard wear under conditions encountered at sea. A liferaft in its container shall be inherently buoyant and shall be arranged so as to display evidence of use or tampering, such as by the use of a suitable seal, or equivalent. The arrangement shall be such that if the vessel sinks, the raft will float free and inflation will take place automatically. The "Instructions for Inflation" requirement of § 160.051–8(b) shall consist of brief instructions for manually launching and inflating a raft. These instructions shall be legibly printed on material that is durable, water and wear resistant. These instructions shall be permanently attached to the exterior of each raft container in two locations, one on each side of the container.

(i) *Rigid container.* The container shall be constructed of metal, wood, or plastic, and shall be capable of being

securely fastened aboard ship and arranged for quick release of the liferaft. The container shall be weathertight, except that provision shall be made for drainage and the circulation of air. Rigid containers shall be the normal means of containing inflatable liferafts except for the installations provided for in subparagraph (2) of this paragraph.

(2) *Fabric container.* A fabric container shall be made of coated fabric in accordance with Military Specification MIL–C–17415. All fasteners and hardware shall be made of noncorrosive metal. Fabric containers shall be provided with carrying handles, nameplates and markings in accordance with § 160.051–8. Fabric containers may be used with liferafts that are reinforced for suspension as described in paragraph (j) of this section to operate in conjunction with certain approved launching devices.

(g) *Inflation.* Inflation shall take place upon the pulling of a lanyard or by some equally simple means which may be accomplished manually both from the deck of a vessel and by a swimmer in the water. In addition, inflation connections shall be provided for use with the hand pump of § 160.051–7(b)(9).

* * * * *

(i) *Capacity.* The maximum number of persons for which an inflatable liferaft may be rated shall be the overall horizontal clear area inside the raft in square feet (including thwarts if fitted) divided by 4, or the volume of the principal buoyancy compartments in cubic feet (which for this purpose shall not include the arches, canopy supports, or thwarts) divided by 3.4, whichever is the lesser.

(j) *Launching reinforcement.* Any liferaft which is to be suspended from or operated in conjunction with an approved launching device such that any of the raft's components are subjected to loads and stresses in addition to those of its inflation system or normal waterborne loading, shall be suitably reinforced with load carrying lines, slings, netting or their equivalents. These reinforcements shall be designed with a minimum factor of safety of 6 on the ultimate strength of the reinforcement based on the raft's normal carrying capacity.

64. Section 160.051–5 is amended by revising paragraphs (c) (4) and (d) and by revising in paragraph (e) the introductory paragraph and subparagraph (11) and by adding a new subparagraph (12), which read as follows:

§ 160.051–5 Inspection and tests.

* * * * *

(c) *Routine inspections and tests.* * * *

(4) *Inflation test.* For lots of less than 30, one specimen shall be tested. For lots of at least 30, but not more than 50, two specimens shall be tested. The specimens shall be selected at random from the lot after the rafts have been folded and packed in their containers with equipment. When the directions on the container are followed, the specimen shall break free from its container and inflate each principle buoyancy compartment on the periphery of the raft to the designed shape and approximate dimensions in not more than 30 seconds at 70° F. At the end of this 30 seconds interval, the canopy support tubes are not required to be fully erect. The specimen shall reach its designed working pressure with the canopy fully erect in not more than 3 minutes after the first carbon dioxide inflation valve is operated. The specimen shall be allowed to stand for 1 hour to allow the gases inside to come to room temperature. The pressure in all the principal buoyancy compartments shall be approximately the designed working pressure. If the specimen(s) fails this test the entire lot shall be subjected to the inflation test.

(d) *Lot acceptance or rejection.* When the inspections and tests prescribed by paragraphs (a), (b), and (c) of this section, above have been completed satisfactorily and all nonconforming units eliminated, and the inflatable liferafts comprising the lot are considered suitable, the lot shall be accepted, and the containers shall be marked in accordance with § 160.051–8(a).

(e) *Preapproval inspection and tests.* The prototype raft shall be inspected and tested at the plant of the manufacturer in the presence of a marine inspector in accordance with paragraph (c) (1) through (4) of this section. If the inspections and tests are satisfactory, the raft shall be repacked together with its equipment in the container with the cylinder(s) charged and the raft in all respects ready for use. The container shall be shipped prepaid to the Field Testing and Development Center, Coast Guard Yard, Baltimore, Md., 21226, for testing in accordance with subparagraphs (1) through (12) of this paragraph. The following additional material shall be forwarded at that time: Completely charged cylinder(s) (one or two depending on the number used in the raft design), 2 yards of all coated cloth used, and two seams 7 inches wide by 12 inches long made in exact accordance with the manufacturer's plans and specifications.

* * * * *

(11) *Temperature exposure.* The packed raft shall be exposed to a temperature of minus 22° F. or lower and to a temperature of 165° F. or higher. The raft shall remain at each temperature for not less than 24 hours and shall be inflated within 5 minutes after removal from each temperature chamber. The raft shall be allowed to return to a temperature of approximately 70° F. before being subjected to the second exposure. For the high temperature test, if carbon dioxide is used for inflation, the raft may be inflated by means of carbon dioxide cylinders which have not been exposed to the test temperatures. It shall be demonstrated that the raft will assume its designed shape with canopy erected, that there is no seam slippage, that the fabric has shown no tendency to crack or become tacky, and that the raft is in all respects ready for use.

(12) *Launching load test.* The following applies to a liferaft subject to the provisions of § 160.051–4(j) that is to operate in conjunction with a launching device approved in accordance with Coast Guard specification 160.063. It shall be demonstrated that the raft while suspended or loaded by its launching connection(s) can sustain a distributed deadweight load of 2.2 times its normal carrying capacity for a period of one-half hour. The normal carrying capacity shall be equivalent to the number of persons allowed (165 pounds per person) together with the weight of equipment carried, plus 10 percent of the total load including the weight of the raft. The distributed deadweight load on the raft together with the raft's attachment(s) and rigging to a test fixture shall so interact as to simulate the loads and stresses that the raft will undergo when operated with an approved launching device.

65. Section 160.051–6 is amended by adding a subparagraph (1) to paragraph (c) and by revising the introductory paragraph of paragraph (e) (but not the subparagraphs thereunder) to read as follows:

§ 160.051–6 Servicing.

* * * * *

(c) *Service manual.* * * *

(1) *Instruction placard.* Each manufacturer of inflatable liferafts shall provide the appropriate number of instruction placards to the master or operator of the vessel on which his particular inflatable liferafts are carried. The instruction placard shall include simple instructions and illustrations showing the operations of launching and inflating the inflatable liferaft, which shall be submitted for approval to the Commandant with the other items required by § 160.051–9(a). In size, such placard shall not be greater than 14 inches by 20 inches.

* * * * *

(e) *Inspection.* The assignment of a marine inspector to witness the inspections and testing shall be scheduled with the Officer in Charge, Marine Inspection, at least 24 hours in advance. The marine inspector shall witness the servicing of each inflatable liferaft and conduct a working pressure leakage test as outlined in § 160.051–5(c)(3), except that the waiting period may be 2 hours in lieu of 6 hours. Each inflatable liferaft, subject to § 160.051–4(j), having a suspension system which is integral with the liferaft and is intended to be used in launching operations shall be proof tested by a suspension test of 1.1 times the normal carrying capacity as specified in § 160.051–5(e)(12). All equipment shall be inspected for condition and outdated water, signals, etc., shall be replaced. Inflation cylinders shall be weighed and recharged if the weight loss exceeds 5 percent of the weight of the charge. After the raft has been satisfactorily serviced and repacked the container shall be sealed as required by § 160.051–4(f) and with waterproof ink the container will be stamped "Passed" together with the date, the port, and the marine inspector's initials. The following additional conditions apply:

* * * * *

66. Section 160.051–7 is amended by revising in paragraph (b) subparagraphs (2), (3), and (6); by revising in para-

graph (c) subparagraphs (1), (3), (4), (5), (8), and (10) and by adding new subparagraphs (11) through (15); and by revising in paragraph (d) subparagraphs (2) and (4), which read as follows:

§ 160.051–7 Equipment.

* * * * *

(b) *Items required for all rafts.* * * *

(2) *Heaving line.* A buoyant heaving line not less than 100 feet in length and having a breaking strength of not less than 250 pounds fitted with a buoyant quoit at one end with the other end attached to the raft near the after entrance.

(3) *Instruction manual.* An instruction manual printed on water resistant paper and stowed in a pocket inside the raft shall describe the raft and its equipment, use of the inflation pump, repair kit, sea anchor, etc., and contain survival information, and an illustrated table of lifesaving signals from form CG–811 (Rev.).

* * * * *

(6) *Lifelines.* Two lifelines of not less than 9/16 inch nylon tubular webbing, or equivalent, shall be fitted: one around the outside periphery and the other around the inside of the raft. The outside lifeline shall be festooned in bights, not more than 24 inches long and fastened at intervals not exceeding 18 inches, which shall hang within 3 inches of the waterline when the raft is fully loaded.

* * * * *

(c) *Ocean service equipment.* * * *

(1) *Bailer(s).* Bailer(s) shall be of flexible material not less than 6 inches in diameter, one of which shall be provided on rafts accommodating 12 persons or less, and two on rafts accommodating 13 persons or more.

* * * * *

(3) *First-aid kit.* An approved first-aid kit in accordance with Subpart 160.054 of this Subchapter Q (Specifications).

(4) *Flashlight.* An approved type I, size No. 3 flashlight constructed in accordance with Subpart 161.008 of this Subchapter Q (Specifications). Three spare cells (or one 3-cell battery) and two spare bulbs in a waterproof container shall be provided with each flashlight. Batteries shall be replaced at each servicing of the liferaft.

(5) *Mirror, signaling.* One signaling mirror of an approved type.

* * * * *

(8) *Signals.* Two hand-held rocket-propelled parachute red flare distress signals constructed in accordance with Subpart 160.036 of this Subchapter Q (Specifications), and six hand red flare distress signals constructed in accordance with Subpart 160.021 or Subpart 160.023 of this Subchapter Q (Specifications).

* * * * *

(10) *Water.* One and one-half quarts of drinking water per person in approved hermetically sealed containers constructed and filled in accordance with Subpart 160.026 of this Subchapter Q (Specifications). Service life of this equipment shall be limited to 5 years from date of packing. One pint of this requirement per person may be replaced by desalting kit(s) approved in accordance with Subpart 160.058 of this Subchapter Q (Specifications), that shall be capable of producing an equal amount of fresh water.

(11) *Jackknife.* On rafts accommodating 13 persons or more, an approved jackknife shall be provided in addition to that required by paragraph (b)(4) of this section.

(12) *Signal whistle.* One signal whistle of the ball type, made of corrosion-resistant construction, with a 36-inch lanyard attached, and in good working order.

(13) *Can openers.* Three means of opening hermetically sealed containers shall be provided. Special blade(s) on the approved jackknives are accepted in this accounting in addition to any can opener(s) the blades or cutting edges of which shall be sheathed to prevent damage to the raft and its equipment.

(14) *Fishing tackle.* One emergency fishing tackle kit in accordance with Subpart 160.061 of this Subchapter Q (Specifications).

(15) *Antiseasickness tablets.* Six antiseasickness medicinal tablets for each person the raft is rated to carry.

(d) *Limited service equipment.* * * *

(2) *Flashlight.* An approved type I, size 3 flashlight constructed in accordance with Subpart 161.008 of this Subchapter Q (Specifications). Three spare cells (or one 3-cell battery) and two spare bulbs in a waterproof container shall be provided with each flashlight. Batteries shall be replaced at each servicing of the liferaft.

* * * * *

(4) *Signals.* One hand-held rocket-propelled parachute red flare distress signal constructed in accordance with Subpart 160.036 of this Subchapter Q (Specifications), and two hand red flare distress signals or two hand combination flare and smoke distress signals constructed in accordance with Subpart 160.021 or Subpart 160.023 of this Subchapter Q (Specifications).

* * * * *

67. Section 160.051–8(a) is amended to read as follows:

§ 160.051–8 Nameplate and marking.

(a) *Nameplate.* Each inflatable liferaft container shall have permanently attached a substantial nameplate of compatible material on which is embossed or imprinted the name of the manufacturer's model number and serial number, the number of persons for which the inflatable liferaft is approved, and the lot number. In addition, the container shall be marked "Ocean Service Equipment" or "Limited Service Equipment" as applicable, together with the marine inspector's initials, the date, and the letters "USCG".

* * * * *

Subpart 160.053—Work Vests, Unicellular Plastic Foam

68. The authority note for Subpart 160.053 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.053 interpret or apply R.S. 4417, as amended, 4417a, as amended, 4418, as amended, 4426, as amended, 4453, as amended, 4488, as amended, 4491, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 17, 54 Stat. 166, as amended, sec. 3, 54 Stat. 347, sec. 3, 70 Stat. 152, sec. 4, 67 Stat. 462, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 391a, 392, 404, 435, 481, 489, 367, 526p, 1333, 390b, 43 U.S.C. 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; 167–15, Jan. 3, 1955, 20 F.R. 820; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.054—Kits, First-Aid, for Inflatable Liferafts

69. The authority note for Subpart 160.054 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.054 interpret or apply R.S. 4417a, as amended, 4488, as amended, 4491, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 3, 54 Stat. 347, sec. 3, 70 Stat. 152, sec. 4, 67 Stat. 462, and sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 481, 489, 367, 1333, 390b, 43 U.S.C. 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; 167–20, June 18, 1956, 21 F.R. 4894; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 160.055—Life Preservers, Unicellular Plastic Foam, Adult and Child, for Merchant Vessels

70. The authority note for Subpart 160.055 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.055 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, as amended, secs. 1, 2, 49 Stat. 1544, as amended, secs. 6, 17, 54 Stat. 164, as amended, 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 4, 67 Stat. 462, and sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 367, 526e, 526p, 1333, 390b, 43 U.S.C. 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; 167–15, Jan. 3, 1955, 20 F.R. 820; 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 160.056—Rescue Boat

71. The authority note for Subpart 160.056 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 160.056 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 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; 167–38, Oct. 26, 1959, 24 F.R. 8857.

72. Section 160.056–7 is amended by adding a new paragraph (f) reading as follows:

§ 160.056–7 Procedure for approval.

* * * * *

(f) If a rescue boat is required on short notice, a boat may be approved on an individual basis: *Provided*, That the requirements in this subpart are met to the satisfaction of the Officer in Charge, Marine Inspection. Sketches of the boat showing alterations may be submitted in lieu of the manufacturer's general arrangement and construction plan. Un-

der these circumstances, the letter indicating that approval of the rescue boat has been granted shall be issued to the vessel using the boat.

73. Part 160 is amended by inserting after § 160.056–7 a new Subpart 160.057, consisting of §§ 160.057–1 to 160.057–6, inclusive, reading as follows:

Subpart 160.057—Signals, Distress, Floating Orange Smoke (15 Minutes), for Merchant Vessels

Sec.

AUTHORITY NOTE: The provisions of this Subpart 160.057 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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. 391a, 404, 481, 489, 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; 167–38, Oct. 26, 1959, 24 F.R. 8857.

§ 160.057–1 Applicable specifications.

(a) *Specifications.* There are no other specifications applicable to this subpart.

(b) *Copies on file.* Copies of the approved plans and certificate of approval shall be kept on file by the manufacturer.

§ 160.057–2 Type.

(a) Floating orange smoke distress signals specified by this subpart shall be of one type which shall consist essentially of an outer container, ballast, an air chamber, an inner container, the smoke producing composition, and an igniter mechanism. Alternate arrangements which conform to the performance requirements of this specification will be given special consideration.

§ 160.057–3 Materials, workmanship, construction, and performance requirements.

(a) *Materials.* The materials shall conform strictly to the specifications and drawings submitted by the manufacturer and approved by the Commandant. Metal for containers shall be not less than 0.020 inch in thickness. Igniter pull wires shall be of corrosion-resistant metal. The combustible material shall be of such nature that it will not deteriorate during long storage, nor when subjected to frigid or tropical climates, or both.

(b) *Workmanship.* Floating orange smoke distress signals shall be of first class workmanship and shall be free from imperfections of manufacture affecting their appearance or that may affect their serviceability.

(c) *Construction.* The outer container shall be cylindrical and not more than 15 inches in length by 11 inches diameter. All sheet metal seams should be hook jointed and soldered. The whole container shall be covered with two coats of gray waterproof paint. The igniter mechanism shall operate and provide ignition of the signal automatically when the ring life buoy to which it is attached is thrown overboard.

(d) *Performance.* Signals shall meet all the inspection and test requirements contained in § 160.057–4.

§ 160.057–4 Sampling, inspections, conditioning, and tests.

(a) *Classification of tests.* The methods of sampling, inspections and tests conducted upon floating orange smoke distress signals shall be considered as falling within one of the following general classifications:

(1) Qualification (type or brand approval) tests;

(2) Production check tests (at the place of manufacture); and,

(3) Production check tests (at a Government laboratory).

(b) *Qualification (type or brand approval) tests.* Pre-approval samples, selected in accordance with § 160.057–6(c), shall be tested in accordance with the testing schedules indicated by subparagraphs (1) and (2) of this paragraph to determine qualification for type or brand approval. The cost of the tests shall be borne by the manufacturer.

(1) *Operational tests.* (i) Subject 4 specimens to water resistance conditioning, paragraph (d) of this section, following which subject them to tests as indicated by Table 160.057–4(b)(1)(i).

TABLE 160.057–4(b)(1)(i)

Letter identification	Number of specimens	Kind of tests	Paragraph references
a	3	Ignition and smoke emitting time.	160.057–4 (e) and (f).
b	1	Underwater smoke emission.	160.057–4(g).

(ii) The magnitude of the failures in these tests shall be determined as indicated by Table 160.057–4(b)(1)(ii). In the case of concurrent or simultaneous defects, penalties will not be applied cumulatively, but only for the greatest defect.

TABLE 160.057–4(b)(1)(ii)

Letter identification	Kind of defects	Failure factor
a	Failure to ignite	100
b	Ignites in air and emits smoke under water less than 50 percent of specified time.	100
c	Ignites in air and emits smoke under water at least 50 percent but less than 100 percent of specified time.	50
d	Ignites or burns dangerously	100
e	Nonuniform smoke emitting rate	50
f	Smoke-emitting time less than 70 percent of specified time.	100
g	Smoke-emitting time at least 70 percent but less then 80 percent of specified time.	75
h	Smoke-emitting time at least 80 percent but less than 90 percent of specified time.	50
i	Smoke-emitting time at least 90 percent but less than 100 percent of specified time.	25

(iii) The average percentage of failure is computed as the sum of the failure factor divided by the number of specimens tested. The average percentage of failure shall not exceed 15 percent.

(2) *Technical tests.* (i) Subject four specimens to tests as indicated by Table 160.057–4(b)(2)(i).

TABLE 160.057–4(b)(2)(i)

Letter identification	Number of specimens	Kind of tests	Paragraph references
a	1	Elevated temperature, humidity, and storage.	160.057–4(h).
b	1	Susceptibility to explosion and corrosion.	160.057–4(i) and (j).
c	1	Volume and density.	160.057–4(l).
d	1	Color	160.057–4(k).

(ii) No deviations from the requirements are permitted for these tests.

(c) *Sampling, inspections, and tests of signals from production lots.* The production of floating orange smoke distress signals produced under an official type or brand approval shall be checked for compliance with this specification in the manner set forth below:

(1) *Lot size and sampling procedure.* For purposes of sampling the production of floating orange smoke distress signals, a lot shall consist of not more than 500 signals. A new lot shall be started with any change or modification in raw materials or manufacturing methods. Lots shall be numbered serially by the manufacturer, and the lot number shall be plainly and indelibly marked on the outer container of each signal in the lot. A marine inspector shall select at random from each lot a sample consisting of four specimen signals for inspection, conditioning, and testing at the place of manufacture.

(2) *Inspections (at the place of manufacture).* The marine inspector shall be admitted to the place of manufacture and shall familiarize himself with the various operations involved in the manufacturing process and, from observation during manufacture, satisfy himself that floating orange smoke distress signals are being made in general accordance with this subpart and of materials and parts conforming strictly with the specifications and drawings submitted by the manufacturer and approved by the Commandant. Specimens or samplings of materials entering into construction may be taken at random, either in the raw material state or during manufacture, by the marine inspector and tests made for compliance with the applicable requirements. The test specimens comprising the sample, selected in accordance with subparagraph (1) of this paragraph, shall be examined by the marine inspector for surface defects.

(3) *Production check tests (at the place of manufacture).* (i) The manufacturer shall provide a suitable place and the necessary apparatus for the use of the marine inspector in conducting such production check tests as are done at the place of manufacture. Samples from production lots, selected in accordance with subparagraph (1) of this paragraph, shall be tested at the place of manufacture in accordance with the following testing schedule: Subject four specimen signals to water resistance conditioning, paragraph (d) of this section,

following which subject them to tests as indicated by Table 160.057-4(c)(3)(i).

TABLE 160.057-4(c)(3)(i)

Letter identification	Number of specimens	Kind of tests	Paragraph references
a	3	Ignition and smoke emitting characteristics, and smoke emitting time.	160.057-4 (e) and (f).
b	1	Underwater smoke emission.	160.057-4(g).

(ii) The computation of the average percentage of failure shall be in accordance with paragraph (b)(1) of this section. Any unusual discrepancies shall be considered cause for obtaining an additional sample consisting of 8 specimen signals for tests at a Government laboratory as provided in subparagraph (4) of this paragraph.

(4) *Production check tests (at a Government laboratory).* Tests at a Government laboratory shall be made on not less than 1 sample from each 10 production lots of signals, or not less than once in each year, whichever occurs more frequently. Sampling and inspection shall be made at the place of manufacture as provided by subparagraphs (1) and (2) of this paragraph, except that the sample shall consist of 8 specimen signals and shall be in addition to the specimen signals which are tested at the place of manufacture. The sample shall be forwarded prepaid by the manufacturer to the Commandant. Tests at the Government laboratory shall be conducted in accordance with paragraph (b) (1) and (2) of this section. Failure to meet the requirements shall be cause for discontinuing further production check tests at the place of manufacture until retests of new samples at a Government laboratory show correction of the deficiency found.

(d) *Conditioning of test specimens—water-resistance.* Immerse specimen horizontally with uppermost portion of the signal approximately 1 inch below the surface of the water for a period of 24 hours. The test specimen shall function properly after this conditioning.

(e) *Ignition and smoke emitting characteristics.* Test specimens shall ignite and emit smoke properly when the directions on the signal are followed. Test specimens shall not ignite explosively in a manner that might be dangerous to the user or persons close by. Test specimens shall emit smoke at a uniform rate while floating in smooth water, and should float in such a manner that the rate of discharge will be constant while the signal is floating in rough water. Signals should be so constructed that moderately heavy seas likely to be encountered at sea will not cause the signal to become inoperable.

(f) *Smoke emitting time.* Ignite specimen according to the directions printed on the signal and place signal in tub or barrel of water. The smoke emitting time of a specimen shall be obtained by stop watch measurements from the time of positive smoke emission until it ceases. There shall be no flame emission during the entire smoke emitting time of the signal. The smoke emitting time for a specimen shall be not less than 15 minutes. When conducting qualification or production check tests at a Government laboratory, this test shall be conducted with approximately ¼ inch of gasoline covering the water in the tub or barrel. The gasoline vapors shall not ignite during the entire smoke emitting time of the signal.

(g) *Underwater smoke emission.* Ignite specimen and let it burn about 15 seconds in air. Submerge the burning signal in water in a vertical position with head down. Obtain underwater smoke emission time by stop watch measurements from time of submersion until positive smoke emission ceases. The test specimen shall emit smoke under water not less than 30 seconds when subjected to this test.

(h) *Elevated temperature, humidity, and storage.* Place specimen in a thermostatically controlled even temperature oven held at 90° C. with not less than 90 percent relative humidity for 72 hours. Remove specimens and store at room temperature (20° to 25° C.) with approximately 65 percent relative humidity for 10 days. If for any reason it is not possible to operate the oven continuously for the 72-hour period, it may be operated at the required temperature and humidity for 8 hours out of each 24 during the 72-hour conditioning period. (Total of 24 hours on and 48 hours off.) The signal shall not ignite or decompose during this conditioning. The signal shall ignite and operate satisfactorily following this conditioning.

(i) *Susceptibility to explosion.* Remove smoke composition from signal and punch a hole in the composition. Insert a No. 6 commercial blasting cap. Ignite the cap. The test specimen shall not explode or ignite.

(j) *Corrosion-resistance.* Expose the complete specimen with cover secured hand-tight to a finely divided spray of 20 percent by weight sodium chloride solution at a temperature of 90° to 100° F. for 100 hours. The container and cap shall show good resistance.

(k) *Color of smoke.* Ignite specimen in the open air in daytime according to the directions printed on the signal, and determine the Munsell notation of the smoke color by direct visual comparison of the unshadowed portions of the smoke with the charts of the Munsell book of color held so as to receive the same daylight illumination as the unshadowed portions of the smoke. The smoke shall be orange, i.e., its Munsell notation shall show a hue between 8R and 5 YR, a value greater than 4.5, and a chroma greater than 9.0.

(l) *Volume and density of smoke.* Test specimens shall show less than 70 percent transmission for not less than 12 minutes when measured with apparatus having a light path of 7½ inches, an optical system aperture of 3.7 degrees, and an entrance air flow of 650 cubic feet per minute, such apparatus to be as described in National Bureau of Standards Report No. 4792 dated July 1956.

(m) *Lot acceptance or rejection.* When the marine inspector has satisfied himself that the floating orange smoke distress signals in the lot are of a type officially approved in the name of the manufacturer and meet the requirements set forth in this subpart, each of the smallest packing cartons or boxes in which the signals are sealed prior to shipment, shall be plainly marked with the words: "Inspected and Passed, (date), (port), Inspector's initials, U.S.C.G." A lot shall be rejected when the average percentage of failure, as computed by the table shown in paragraph (b)(1) of this section exceeds 15 percent. When notice is received by the marine inspector that specimen signals have failed to meet the requirements of the production check tests at a Government laboratory, further production check tests at the place of manufacture shall be discontinued until retests of adjusted samples show correction of the deficiency found. Signals from rejected lots may, when permitted by the marine inspector, be reworked by the manufacturer to correct the deficiency for which they were rejected and be resubmitted for official inspection. Signals from rejected lots may not, unless subsequently accepted, be sold or offered for sale under representation as being in compliance with this specification or as being approved for use on merchant vessels.

§ 160.057-5 Marking.

(a) *Directions for use.* Each floating orange smoke distress signal shall be plainly and indelibly marked in black lettering not less than 3/16 inch high with the word "Directions". Immediately below shall be similarly marked in black lettering not less than ⅛ inch high in numbered paragraphs, and in simple and easily understood wording, instructions to be followed to make the device operative. Pasted-on-labels are not acceptable.

(b) *Other marking.* There shall be embossed or die-stamped, in the outer container in figures not less than 3/16 inch high, numbers indicating the month and year of manufacture, thus: "6-64" indicating June 1964. The outer container shall also be plainly and indelibly marked with the commercial designation of the signal, the words "Floating Orange Smoke Distress Signal (15 Minutes)", name and address of the manufacturer, the Coast Guard Approval No., the month and year of manufacture and the lot number. In addition to any other marking placed on the smallest packing carton or box containing floating orange smoke distress signals, such cartons or boxes shall be plainly and indelibly marked to show the month and year of manufacture and the lot number.

§ 160.057-6 Procedure for approval.

(a) *General.* Floating orange smoke distress signals for use on merchant vessels are approved only by the Comman-

dant (MMT), U.S. Coast Guard, Washington, D.C., 20226. Correspondence pertaining to the subject matter of this specification shall be addressed to the Commander of the Coast Guard District in which the factory is located.

(b) *Manufacturer's plans and specifications.* In order to obtain approval, submit detailed plans and specifications including a complete bill of material, assembly drawing, and part drawings descriptive of the arrangement and construction of the signal, to the Commander of the Coast Guard District in which the factory is located. Each drawing shall have an identifying drawing number, date, and an identification of the signal; and the general arrangement or assembly drawing shall include a list of all drawings applicable, together with drawing numbers and alteration numbers. The alterations shall be noted with the date of alteration or new drawing numbers and dates shall be assigned. At the time of selection of the pre-approval sample, the manufacturer shall furnish to the marine inspector 4 copies of all plans and specifications, corrected as may be required, for forwarding to the Commandant.

(c) *Pre-approval sample.* After the first drawings and specifications have been examined and found to appear satisfactory, the manufacturer will be advised as to any corrections or additions which are necessary. A marine inspector then will be detailed to the factory to observe the production facilities and manufacturing methods and to select at random from not less than 30 signals already manufactured, a sample of not less than 8 specimens which will be forwarded prepaid by the manufacturer to the Commandant for the necessary conditioning and tests in accordance with the schedule outlined in § 160.057-4(b) to determine compliance with this subpart for qualification for type or brand approval for use on merchant vessels. Costs of these tests of the pre-approval sample shall be borne by the manufacturer.

74. Part 160 is amended by inserting after § 160.057-6 a new Subpart 160.058, consisting of §§ 160.058-1 to 160.058-6, inclusive, reading as follows:

Subpart 160.058—Desalter Kits, Sea Water, for Merchant Vessels

Sec.

AUTHORITY NOTE: The provisions of this Subpart 160.058 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 395, 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; 167-20, June 18, 1956, 21 F.R. 4894; 167-38, Oct. 26, 1959, 24 F.R. 8857.

§ 160.058-1 Applicable specification.

(a) *Specification.* The following specification, of the issue in effect on the date the desalter kits are manufactured, forms a part of this subpart:

(1) *Military specification.* MIL-D-5531D—Desalter Kit, Sea Water, Mark 2.

(b) *Copies on file.* A copy of the specification referred to in this section shall be kept on file by the manufacturer, together with the approved plans and certificate of approval. The Military Specification may be obtained from the Commanding Officer, Naval Supply Depot, 5801 Tabor Avenue, Philadelphia, Pa., 19120.

§ 160.058-2 Type.

(a) Desalter kits specified by this subpart shall be of the type described in the specification listed in § 160.058-1(a)(1).

§ 160.058-3 Materials, workmanship, construction and performance requirements.

(a) The materials, construction, workmanship, general and detail requirements shall conform to the requirements of the specification listed in § 160.058-1(a)(1), except as otherwise specifically provided by this subpart.

§ 160.058-4 Inspections.

(a) Desalter kits specified by this subpart are not inspected at regularly scheduled factory inspections; however, the Commander of the Coast Guard District in which the desalter kits are manufactured may detail a marine inspector at any time to visit places where desalter kits are manufactured to check materials and construction methods and to satisfy himself that the desalter kits are being manufactured in compliance with the requirements of the specification listed in § 160.058-1(a)(1) as modified by this specification and are suitable for the intended purpose. The manufacturer shall admit the marine inspector to his plant and shall provide a suitable place and the necessary apparatus for the use of the marine inspector in conducting tests at the place of manufacture.

§ 160.058-5 Labeling and marking.

(a) In addition to the marking and instructions required by the specification listed in § 160.058-1(a)(1), the Coast Guard approval number shall be included. The contract number may be omitted.

§ 160.058-6 Procedure for approval.

(a) *General.* Desalter kits for use in lifeboats or liferafts on merchant vessels are approved only by the Commandant, U.S. Coast Guard, Washington, D.C., 20226. Correspondence pertaining to the subject matter of this specification shall be addressed to the Commander of the Coast Guard District in which the factory is located.

(b) *Manufacturer's plans and specifications.* In order to obtain approval, submit two samples and four copies of detailed plans, specifications and a bill of material to the Commander of the Coast Guard District in which the kits are manufactured. Prior to any action by the Coast Guard it will be required that the desalter kit under consideration, either be listed on the Qualified Products List of Products Qualified Under the Military Specification listed in § 160.058-1(a)(1), or the manufacturer of such kits shall prove by report from the Bureau of Ships, U.S. Navy, or a recognized testing laboratory that the desalter kit does in fact comply with the specification listed in § 160.058-1(a)(1).

75. Part 160 is amended by inserting after § 160.060-9 a new Subpart 160.061 consisting of §§ 160.061-1 to 160.061-7, inclusive, reading as follows:

Subpart 160.061—Fishing Tackle Kits, Emergency, for Merchant Vessels

Sec.

AUTHORITY NOTE: The provisions of this Subpart 160.061 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, 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, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 395, 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; 167-20, 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.

§ 160.061-1 Applicable specifications.

(a) The following specifications, of the issue in effect on the date emergency fishing tackle kits are manufactured, form a part of this subpart:

(1) Federal specifications:

QQ-I-706—Iron and steel; sheet, tinned (tin plate).
QQ-W-423—Wire, steel, corrosion-resisting.
HH-P-91—Packing, fiber, hard sheet.
CCC-F-451—Flannel, canton.

(2) Military specifications:

MIL-H-2846—Hooks, fish, steel.
MIL-B-1418—Blades, razor, safety.
MIL-A-140—Adhesive, water-resistant, W.P. barrier-material.

(b) Copies of the specifications referred to in this section shall be kept on file by the manufacturer, together with the approved plans, if any, and the certificate of approval.

(1) The Federal Specifications may be purchased from the Business Service Center, General Services Administration, Washington, D.C., 20407.

(2) The Military Specifications may be obtained from the Commanding Officer, Naval Supply Depot, 5801 Tabor Avenue, Philadelphia, Pa., 19120.

§ 160.061-2 Requirements.

(a) *Material.* Material shall be as specified in this subpart.

(b) *Assembly.* Emergency fishing kits shall consist of fishing rigs, accessories, and instructions furnished in a hermetically sealed container.

(c) *Components.* Each fishing kit shall consist of the items listed in table 160.061–2(c).

TABLE 160.061–2(c)—Fishing Kits

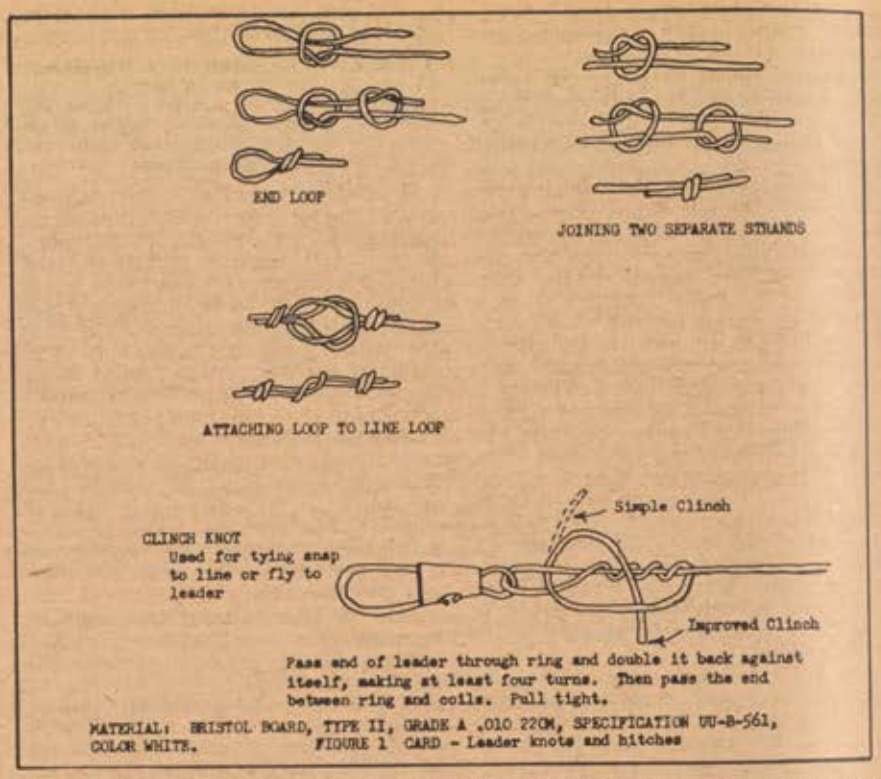
Item No.	Description [1]	Quantity
1	Booklet, Fishing Instructions (Refer to § 160.061–3(i)).	1 each.
2	Container, Fishing Kit (See Fig. 2).	1 each.
3	Hooks, treble, size 1, short shank.	2 each.
4	Hooks, size 7/0, 5/0, 1/0, 2, 6, 8, O'Shaugnessy, straight shank, double strength.	2 each.
5	Leader, wire, 0.011-inch diameter, 27-pound test (with No. 3 snap on one end and No. 7 swivel on the other end) 6-inch length.	2 each.
6	Leader, wire, 0.016-inch diameter, 58-pound test (with No. 3 snap on one end and No. 4 swivel on the other end) 12-inch length.	2 each.
7	Leader, monofilament, 0.021-inch diameter, 15-pound test, 4-foot length.	4 each.
8	Line, monofilament, 18-pound test 100-foot length.	1 each.
9	Line, nylon or dacron, braided, 63-pound test, 150 feet length.	1 each.
10	Pad, canton flannel, 2¾ inches square, specification CCC–F–451, color, bright yellow.	1 each.
11	Pad, canton flannel, 2¾ inches square, specification CCC–F–451, color, bright red.	1 each.
12	Lure, spoon, removable No. 6 hook, yellow feathers, blade length 1 3/32 inches, width 1 1/32 inch, weight ½0 ounce, polished copper finish.	1 each.
13	Lure, spoon, removable No. 5/0 hook, yellow feathers, blade length 3 inches, width ¾ inch, weight ⅜ ounce, polished chrome finish.	1 each.
14	Lure, spoon, free swinging No. 1 treble double strength, short shank, blade length 2 9/16 inches, width 13/16 inch, weight ¼ ounce, stainless steel or chrome plated brass.	1 each.
15	Sinkers, pinch on or equal, ¼ ounce, 5/16 ounce, 1 ounce.	1 each.
16	Foil, shiny, 4 inches square	1 each.
17	Squid, tinsel body, length 2 inches, weight ½ ounce.	1 each.
18	Jig, painted lead head, bucktail feathered with 1/0 hook.	1 each.
19	Jig, painted lead head, bucktail feathered with 3/0 hook.	1 each
20	Blades, razor, safety, single edge.	1 each.
21	Bait, pork rind, 4 inches long, ½ inch wide, with ends tapered to ¼ inch wide and rounded.	4 each.
22	Snap and swivels, No. 3	6 each.
23	Card, leader knots and hitches (fig. 1).	1 each.
24	Winder (see §160.061–3(h))	2 each.

[1] The tolerances of these items shall be plus or minus 1/32-inch on all dimensions.

§ 160.061–3 Design and construction.

(a) *Container.* The container shall be made of ethyl cellulose, clear, type EM–1, Specification MIL–P–3412 or better. The dimensions shall not exceed those specified in Figure 2. Other packaging arrangements acceptable to the Commandant will be considered.

(b) *Card.* A card showing leader knots and hitches shall be provided as per Figure 1. Size of card should not exceed 2¾ by 4¾ inches.



(c) *Hooks.* Unless otherwise specified, all hooks shall be of forged steel, hollow ground with filed out points. The hooks shall be of ringed type and shall be tinned. Hooks shall be tampered, tough, flexible, and resilient.

(d) *Leaders.* Wire leaders shall be of stainless steel, and shall be attached to snaps and swivels with not less than six turns of wire. Monofilament leaders shall be blue mist and shall be provided with a ⅝-inch inside diameter end loop on one end.

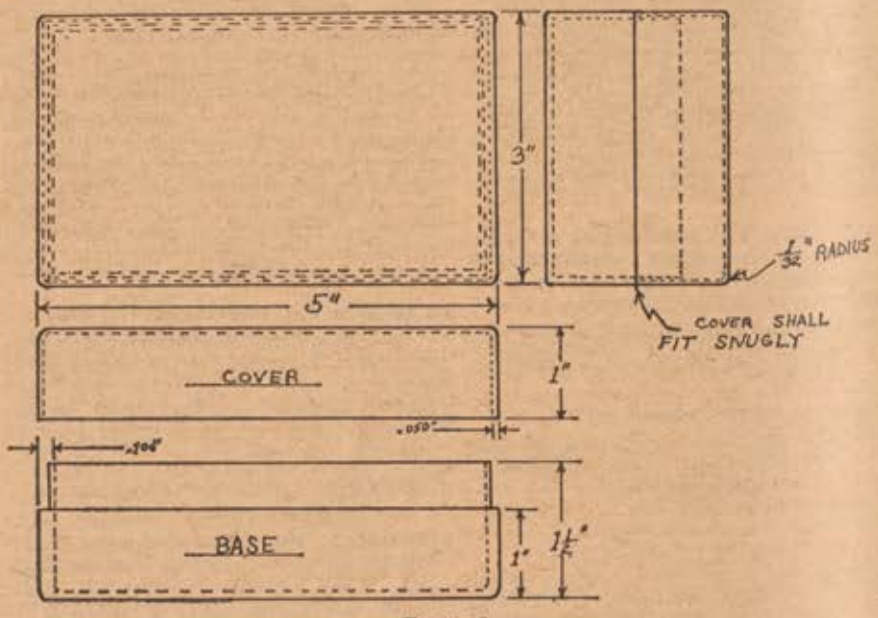


FIGURE 2.

(e) *Snaps and swivels.* Swivels shall be either of brass or bronze. Snaps shall be stainless steel.

(f) *Lines.* Unless otherwise specified, nylon lines shall be hard braided, waterproofed, and heat set to reduce "stretch". Lines may be either camouflage or mist in color.

(g) *Spoons.* Spoons shall be of the single-blade, egg-shaped dished type with either fixed or free-swinging hooks. The spoons shall be stainless steel or stamped from brass and plated to resist corrosion. Each spoon shall, on the forward end, be provided with an eye for attachment to the line. Spoons having free-swinging hooks shall have the hooks attached by means of a split ring through a hole in the rear of the blade. In fixed-hook spoons, the hook shall be attached to the spoon by a screw and shall be shaped to conform to the contour of the spoon. Feathers, if provided, shall be yellow hackle feathers attached to the hook by wrapping with thread, and the wrapping coated with red lacquer.

(h) *Winder.* Winders shall conform to Figure 3, or shall be of an equivalent commercial design suitable to contain required length of line.

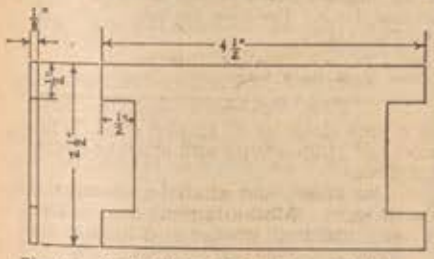


Figure 3—Winder. Material: Packing; fiber, hard sheet, Specification HH–P–91; dimensions in inches: Unless otherwise specified; tolerances: Fractions plus or minus 1/32-inch.

(i) *Booklet of instructions.* The fishing instructions shall be prepared in pamphlet form, approximately 2½ inches by 4½ inches on parchment paper, in waterproof ink, with printing on one side of the paper only. The booklet shall contain a complete description of how and under what conditions each component should be used, and general suggestions for fishing. It shall be prepared in easy to read form in such a manner that a completely inexperienced person will know what equipment to use and how to use it. Both physical form and the contents of the booklet shall be specially approved by the Commandant, U.S. Coast Guard, prior to acceptance. A copy of approved contents for the instruction booklet will be furnished on request.

§ 160.061–4 Kit assembly.

(a) *Preparation of items.* The items shall be prepared for packing into the kit as indicated below. Each transparent envelope shall be closed by heat sealing.

Item No.	*Preparation for assembly*
1, 10, 11, 12, 13, 14, 15, 16, 17, 23, 24.	None.
3, 4, 5, 6, 7, 18, 19, 21, 22.	Insert in a transparent envelope.
8 and 9	Gather into a hank 4½ inches long and restrain with tape.
20	Wrap in paper envelope.

(b) *Packing of items.* The components of the kit, after being prepared as specified, shall be packed in the container in such manner that there is a minimum possibility of any item being bent or crushed. The marking label shall be placed on the bottom of the container with the wording facing out. The instruction booklet shall be packed, front cover up, under the lid. The container shall be sealed after the components have been packaged therein with an 18-inch length of ¾-inch wide adhesive tape conforming to Specification JAN–P–127. The tape shall be applied around the perimeter of the container with an equal amount on each side of the juncture of the two sections of the container. An alternate packaging arrangement acceptable to the Commandant will be acceptable.

§ 160.061–5 Marking.

(a) *General.* The containers shall be stencilled on the bottom in black with the manufacturer's name or trademark and type or model number in letters approximately 3/16 inch high, together with the following legend in letters 3/16 inch high:

UNITED STATES COAST GUARD
APPROVAL NO. 160.061/—
EMERGENCY FISHING TACKLE KIT
OPEN ONLY FOR ACTUAL EMERGENCY USE
NOT FOR INSPECTION

§ 160.061–6 Inspection and test.

(a) *General.* Fishing tackle kits specified by this subpart are not inspected at regularly scheduled factory inspections; however, the Commander of the Coast Guard District in which the fishing tackle kits are manufactured may detail a marine inspector at any time to visit places where fishing kits are manufactured to check materials and construction methods and to conduct such tests and examinations as may be required to satisfy himself that the fishing tackle kits are being manufactured in compliance with the requirements of this specification and are suitable for the intended purpose. The manufacturer shall admit the marine inspector to his plant and shall provide a suitable place and the necessary apparatus for the use of the inspector in conducting tests at the place of manufacture.

§ 160.061–7 Procedure for approval.

(a) *General.* Fishing kits for use in lifeboats, liferafts, etc., aboard merchant vessels are approved only by the Commandant, U.S. Coast Guard, Washington, D.C., 20226. Correspondence relating to the subject matter of this specification shall be addressed to the Commander of the Coast Guard District in which the factory is located.

(b) *Pre-approval sample and plans.* Manufacturers who desire to manufacture approved fishing kits shall submit to the Commander of the Coast Guard District in which the factory is located, two sample fishing kits, together with 4 sets of drawings showing all items, instructions, markings, etc. The Commander of the Coast Guard District will forward the sample fishing kits and the drawings to the Commandant to determine compliance with this subpart and suitability of the fishing tackle kit for type approval for use in lifeboats and liferafts on merchant vessels.

PART 161—ELECTRICAL ENGINEERING

1. The authority for Part 161 is amended to read as follows:

AUTHORITY: The provisions of this Part 161 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 161.002—Fire-Protective Systems

2. The authority note for Subpart 161.002 is deleted since it duplicates the authorities listed for the entire part.

Subpart 161.004—Emergency Loudspeaker System

3. The authority note for Subpart 161.004 is deleted since it duplicates the authorities listed for the entire part.

PART 162—ENGINEERING EQUIPMENT

Subpart 162.001—Safety Valves (Power Boilers)

1. The authority note for Subpart 162.001 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 162.001 interpret or apply R.S. 4417a, as amended, 4418, as amended, 4426, as amended, 4433, as amended, 4491, 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. 391a, 392, 404, 411, 489,

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; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659.

Subpart 162.012—Safety Valves (Steam Heating Boilers)

2. The authority note for Subpart 162.012 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 162.012 interpret or apply R.S. 4417a, as amended, 4418, as amended, 4426, as amended, 4433, as amended, 4491, 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. 391a, 392, 404, 411, 489, 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; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659.

Subpart 162.013—Relief Valves (Hot Water Heating Boilers)

3. The authority note for Subpart 162.013 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 162.013 interpret or apply R.S. 4417a, as amended, 4418, as amended, 4426, as amended, 4433, as amended, 4491, 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. 391a, 392, 404, 411, 489, 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; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659.

Subpart 162.014—Fusible Plugs for Merchant Vessels

4. The authority note for Subpart 162.014 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 162.014 interpret or apply R.S. 4417a, as amended, 4418, as amended, 4433, as amended, 4488, as amended, 4491, 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. 391a, 392, 411, 481, 489, 367, 1333, 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.

Subpart 162.016—Flame Arresters for Tank Vessels

5. The authority note for Subpart 162.016 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 162.016 interpret or apply R.S. 4417a, as amended, 4491, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 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.

Subpart 162.017—Pressure-Vacuum Relief Valves and Spill Valves for Tank Vessels

6. The authority note for Subpart 162.017 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 162.017 interpret or apply R.S. 4417a, as amended, 4491, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 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.

Subpart 162.018—Safety Relief Valves, Liquefied Compressed Gas

7. The authority note for Subpart 162.018 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 162.018 interpret or apply R.S. 4417a, as amended, 4491, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 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.

Subpart 162.026—Boilers, Auxiliary, Automatically Controlled, Packaged, for Merchant Vessels

8. The authority note for Subpart 162.026 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 162.026 interpret or apply R.S. 4417a, as amended, 4418, as amended, 4433, as amended, 4491, 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. 391a, 392, 411, 489, 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; CGFR 56–28, July 24, 1956, 21 F.R. 5659.

Subpart 162.027—Nozzles, Firehose, Combination Solid stream and Water Spray (1 ½-Inch and 2 ½-Inch) for Merchant Vessels

9. The authority note for Subpart 162.027 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 162.027 interpret or apply R.S. 4417a, as amended, 4418, as amended, 4426, as amended, 4427, as amended, 4488, as amended, 4491, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, secs. 3, 17, 54 Stat. 347, as amended, 166, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 392, 404, 405, 481, 489, 367, 1333, 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; 167–20, June 18, 1954, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

10. Section 162.027–1(b) is amended to read as follows:

§ 162.027–1 Applicable specifications.

* * * * *

(b) *Copies on file.* Copies of the specifications referred to in this section shall be kept on file by the manufacturer, together with the approved plans and certificate of approval. The Military Specification may be obtained from the Commanding Officer, Naval Supply Depot, 5801 Tabor Avenue, Philadelphia, Pa., 19120. The Federal Specification may be purchased from the Business Service Center, General Services Administration, Washington, D.C., 20405.

11. Section 162.027–2(a) is amended to read as follows:

§ 162.027–2 Type and size.

(a) *Type.* Combination solid stream and water spray firehose nozzles specified by this subpart shall consist essentially of a firehose nozzle body with two discharge outlets, a valve for shut off and directing the flow of water to either outlet, a high-velocity water spray tip, and an applicator with a low-velocity water spray head. One discharge outlet shall be a straight stream orifice, and the other outlet shall be designed to accommodate either the high-velocity tip or the applicator with the low-velocity head, both of which must be capable of being removed or inserted readily without the use of tools. Combination nozzles shall be designed so that both the high-velocity spray tip and the low-velocity spray head are designed to pass material up to the size of a ⅜-inch diameter ball for the 1 ½-inch size, and up to a ½-inch diameter ball for the 2 ½-inch size. Nozzles permitting adjustment to obtain a range of spray patterns will not be considered as meeting the requirements of this subpart.

* * * * *

§ 162.027–3 [Amended]

12. Section 162.027–3 *Materials, construction, workmanship, and performance requirements* is amended by deleting subparagraphs (2) and (4) and by redesignating subparagraph (3) as subparagraph (2) in paragraph (b).

§ 162.027–4 [Amended]

13. Section 162.027–4 *Inspections and tests* is amended by deleting paragraph (e) and by redesignating paragraphs (f) and (g) as paragraphs (e) and (f), respectively.

Subpart 162.028—Extinguishers, Fire, Portable, Marine Type

14. The authority note for Subpart 162.028 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 162.028 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, as amended, secs. 1, 2, 49 Stat. 1544, 1545 as amended, secs. 3, 17, 54 Stat. 165 as amended, 166, as amended, 347, as amended, sec. 3, 70 Stat. 152, sec. 4, 67 Stat. 462, and sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 367, 526g, 526p, 1333, 390b, 43 U.S.C. 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; 167–15, Jan. 3, 1955, 20 F.R. 820; 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.

15. Part 162 is amended by inserting after § 162.028–8 a new Subpart 162.034 consisting of §§ 162.034–1 to 162.034–6, inclusive, reading as follows:

Subpart 162.034—International Shore Connections (Ship)

Sec.

AUTHORITY NOTE: The provisions of this Subpart 162.034 interpret or apply R.S. 4417a, as amended, 4418, as amended, 4426, as amended, 4427, as amended, 4488, as amended, 4491, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, secs. 3, 17, 54 Stat. 347, as amended, 166, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 392, 404, 405, 481, 489, 367, 1333, 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; 167–20, June 18, 1954, 21 F.R. 4894;

CGFR 56-28, July 24, 1956, 21 F.R. 5659; 167-38, Oct. 26, 1959, 24 F.R. 8857.

§ 162.034-1 Applicable specifications.

(a) There are no other specifications applicable to this subpart.

§ 162.034-2 Type.

(a) The international shore connection shall be of one type as specified in this subpart.

§ 162.034-3 Materials, workmanship, and construction.

(a) The connection shall be constructed of brass or bronze suitable for 150 p.s.i. service. The bolts, nuts, and washers shall be of brass or bronze. The gasket shall be of any material suitable for 150 p.s.i. service.

(b) Workmanship shall be first class. Completed units shall be free from imperfections or defects which materially affect appearances or which may affect serviceability.

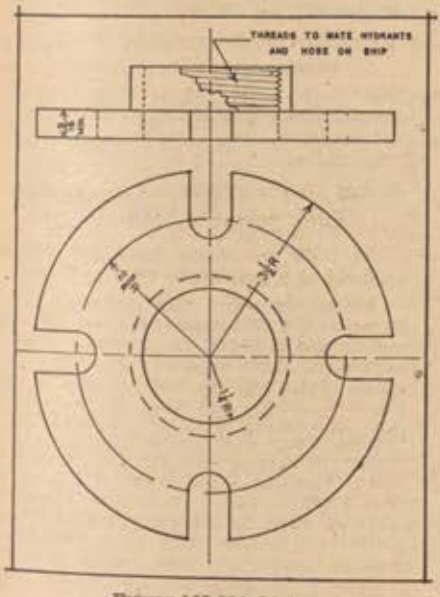


FIGURE 162.034-3(c).

(c) The flange of the connection shall have a flat face on one side and a coupling that will fit the ship's hydrants and hose on the other. The connection and parts shall be in accordance with Figure 162.034-3(c) and the following details:

(1) Connection:

Outside diameter	7 inches.
Inside diameter	2½ inches.
Bolt circle diameter.	5¼ inches.
Bolt holes	4, each of ¾-inch diameter equidistantly placed, slotted to the flange periphery.
Flange thickness	9/16-inch minimum.
Flange surface	Flat face.

(2) Bolts, nuts, washers:

Bolts	4, each of ⅝-inch diameter, of 2 inches minimum length, threaded to within 1 inch of bolt head.
Nuts	4, each of fit bolts.
Washers	8, each to fit bolts.

(3) Gasket:

Gasket	Any suited to 150 p.s.i. service.

§ 162.034-4 Inspection and tests.

(a) International shore connections (ship) specified by this subpart are not subject to factory inspections, but may be subject to shipboard inspections to determine conformance to this subpart.

§ 162.034-5 Marking.

(a) No specific marking is required.

§ 162.034-6 Procedure for approval.

(a) International shore connections (ship) are not subject to formal approval, but will be accepted by the marine inspector on the basis of this subpart at annual inspections and reinspections of vessels.

16. Part 162 is amended by inserting after § 162.034-6 a new Subpart 162.039, consisting of §§ 162.039-1 to 162.039-8, inclusive, reading as follows:

Subpart 162.039—Extinguishers, Fire, Semiportable, Marine Type

Sec.

AUTHORITY NOTE: The provisions of this Subpart 162.039 interpret or apply R.S. 4417a, as amended, 4418, as amended, 4426, as amended, 4427, as amended, 4488, as amended, 4491, as amended, secs. 1, 3, 49 Stat. 1544, 1545, as amended, secs. 3, 17, 54 Stat. 347, as amended, 166, as amended, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 392, 404, 405, 481, 489, 367, 1333, 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; 167-20, June 18, 1954, 21 F.R. 4894; CGFR 56-28, July 24, 1956; 21 F.R. 5659; 167-38, Oct. 26, 1959, 24 F.R. 8857.

§ 162.039-1 Applicable specifications.

(a) There are no other Coast Guard specifications applicable to this subpart.

§ 162.039-2 Classification.

(a) Every semiportable fire extinguisher shall be classified as to type and size as specified in § 76.50-5 (Subchapter H—Passenger Vessels) of this chapter.

§ 162.039-3 Requirements.

(a) *General.* Every semiportable fire extinguisher shall conform to the requirements for listing and labeling by a recognized laboratory as a stationary unit and shall be of such design, materials, and construction as to meet the requirements specified in this section.

(b) *Design.* Every semiportable extinguisher shall be arranged for stowage in a fixed location (wheeled units not permitted), fitted with hose of sufficient length to a nozzle or nozzles to provide for suitable application of the extinguishing agent to any part of the space protected (a length of pipe may connect the outlet of the supply to the hose connection); shall weigh more than 55 pounds when fully charged; shall be self-contained, i.e., when charged, it shall not require any additional source of extinguishing agent or expellent energy for its operation; and shall provide simple means for immediate operation by a single operator. The design, materials and construction shall provide reliability of operation and performance after nonuse for long periods under conditions encountered in marine service.

(c) *Materials.* Materials used for exposed working parts, except those used for inversion mechanism or similar purposes, shall be corrosion-resistant to salt water and spray. Materials used for other exposed parts shall be either corrosion-resistant or shall be protected by a suitable corrosion-resistant coating.

(1) *Corrosion-resistant materials.* The materials which are considered to be corrosion-resistant are copper, brass, bronze, certain copper-nickel alloys, certain alloys of aluminum, certain plastics, and certain stainless steels.

(2) *Corrosion-resistant coatings.* (i) The following systems of organic or metallic coatings for exposed nonworking ferrous parts except for ICC cylinders, when applied on properly prepared surfaces after all cutting, forming, and bending operations are completed, are considered to provide suitable corrosion resistance:

(a) Bonderizing, followed by the application of zinc chromate primer, followed by one or more applications of enamel; or,

(b) Inorganic zinc coatings; or,

(c) Hot-dipped or electrodeposited zinc in thicknesses not less than 0.002 inch; or,

(d) Electrodeposited Cadmium in thicknesses not less than 0.001 inch; or,

(e) Hot-dipped or sprayed aluminum in thicknesses not less than 0.002 inch; or,

(f) Copper plus nickel in total thicknesses not less than 0.003 inch, or which the nickel is not less than 0.002 inch, plus any thickness of chrome.

(ii) The metallic platings of less than the thicknesses specified in this paragraph are not acceptable for the protection against corrosion of ferrous parts.

(3) *Decorative platings.* Decorative platings in any thicknesses applied over corrosion-resistant materials and corrosion-resistant coatings are acceptable for either working or nonworking parts.

(4) *Dissimilar metals.* The use of dissimilar metals in combination shall be avoided wherever possible, but when such contacts are necessary, provisions (such as bushings, gaskets, or o-rings) shall be employed to prevent such deleterious effects as galvanic corrosion, freezing or buckling of parts, and loosening or tightening of joints due to differences in thermal expansion.

(5) *Suitability of materials.* In event of question as to the suitability of the materials (including coatings) used, the salt spray test described in subparagraph (6) of this paragraph shall be conducted.

(6) *Salt spray test.* Expose the complete fully charged specimen extinguisher to a 20 percent sodium-chloride solution spray at a temperature of 95° F. (35° C.) for a period of 240 hours. The procedures and apparatus described in Method 811 of Federal Test Method Standard No. 151 are suitable. Alternate

methods may be found satisfactory if the results are comparable. Following the test, allow the specimen extinguisher to air dry for a period of 48 hours. Following the air drying, the specimen extinguisher shall be capable of being operated satisfactorily without undue effort or special procedures on the part of the operator, and it shall be capable of being recharged satisfactorily in accordance with the directions on the nameplate without the use of extraordinary tools or procedures.

(d) *Gages.* Every pressure gage used on a semiportable fire extinguisher shall have an accuracy of at least 2 percent of the scale range for the middle half of the scale conforming to ASME Grade B commercial accuracy. The gage when new shall be watertight, i.e., with the connection capped or plugged, no water shall penetrate to the interior of the case during submergence 1 foot below the surface of water for a period of 2 hours. The gage shall be constructed of corrosion-resistant materials, so that the pointer or face lettering will not be obliterated by the action of salt water if some leakage should occur after rough handling or extended periods of service. The gage, when attached to the extinguisher, shall pass the salt spray and vibration tests prescribed by paragraphs (c)(6) and (e) of this section.

(e) *Vibration resistance.* Either component parts, subassemblies, or the complete, fully charged specimen extinguisher, shall be tested in accordance with §§ 3.1 through 3.1.4.4 of Military Standard MIL–STD–167. Following this test, there shall be no obvious failures of parts or assemblies, and they shall be capable of being operated satisfactorily without undue effort or special procedures on the part of the operator, and the extinguisher shall be capable of being recharged satisfactorily in accordance with the directions on the name plate without the use of extraordinary tools or procedures.

(f) *Carbon dioxide type.* Every carbon dioxide type extinguisher shall be fitted with a valve which will withstand a minimum bursting pressure of 6,000 p.s.i.; and a discharge hose or tube which will withstand a minimum bursting pressure of 5,000 p.s.i. The hose shall be constructed with either a wire braid or other conducting material for conducting static charges occurring at the discharge nozzle back to the body of the extinguisher.

(g) *Chemical-foam type.* Every chemical foam type semiportable fire extinguisher shall have a nozzle which will provide operating characteristics such that when it is held about 3 feet above the ground at an elevation of approximately 30°, and with the extinguisher and contents both at approximately 70° F. and 120° F., the range of the stream shall not exceed 40 feet, and the major portion of the discharge shall fall between 20 and 40 feet, measured horizontally, from the nozzle. The duration of the effective discharge shall be between 2.5 and 4.0 minutes, effective discharge being considered as occurring while the major portion of the discharge falls beyond 10 feet, measured horizontally, from the nozzle.

(h) *Dry chemical type.* Every dry chemical type semiportable fire extinguisher shall contain dry chemical of the foam compatible type, i.e., dry chemical which has been found to be compatible with the mechanical foams used aboard vessels.

(i) *Toxic extinguishing agents.* Every semiportable fire extinguisher shall contain only agents which qualify for the Underwriters' Laboratories, Inc., toxicity rating of Group 5 or Group 6, and which in normal fire extinguishing use do not generate decomposition products in concentrations hazardous to life. Acceptance of extinguishing agents under these requirements will be determined by the Coast Guard.

(j) *Fire tests.* Fire tests may be employed in determining the suitability for "marine type" listing and labeling.

(k) *Additional tests.* Every semiportable extinguisher may be additionally examined and tested to establish its reliability and effectiveness in accordance with the intent of this specification for a "marine type" semiportable fire extinguisher when considered necessary by the Coast Guard or by the recognized laboratory.

(l) *Additional marking.* (1) As part of the usual nameplate marking, there shall be included the rated capacity of the extinguisher in gallons, quarts, or pounds, and complete instructions for recharging, including the identification of the recharge materials and of the pressure containing cylinder or separate container if one is used.

(2) Pasted-on type paper or decalcomania labels are not acceptable for any of the required extinguisher marking.

(3) Recharge packages shall be legibly marked with the name of the recharge and the capacity of contents in gallons, quarts, or pounds in addition to the usual recharge package marking. Recharge pressure containing cylinders shall, in addition to the usual marking, also be plainly marked to show the distinctive identifying designation of the cylinder.

(m) *Securing means.* Every semiportable fire extinguisher shall be supplied with a suitable means for holding the extinguisher securely in its stowage location on vessels or boats. The materials shall be sufficiently corrosion-resistant or protected against corrosion to withstand the test prescribed by paragraph (c)(6) of this section without showing more than traces of slight corrosion, which may be easily wiped off after rinsing with tapwater.

§ 162.039–4 Marine type label.

(a) In addition to all other marking, every semiportable extinguisher shall bear a label containing the "marine type" listing manifest issued by a recognized laboratory. This label will include the classification of the extinguisher in accordance with the Coast Guard classification system, and the Coast Guard approval number, thus: "Marine Type USCG Type _____, Size _____, Approval No. 162.039/Ex____." All such labels are to be obtained from the recognized laboratory and will remain under its control until attached to product found acceptable under its listing and labeling program.

§ 162.039–5 Recognized laboratory.

(a) A recognized laboratory is one which is regularly engaged in the examination, testing, and evaluation of semiportable fire extinguishers; which has an established factory inspection, listing, and labeling program; and which has special standards for listing and labeling as a "marine type" semiportable fire extinguisher acceptable to the Commandant as approved for use on merchant vessels and motorboats. The following laboratories are recognized, and the semiportable fire extinguishers bearing their "marine type" labels are approved for use on merchant vessels and motorboats:

(1) Underwriters' Laboratories, Inc., mailing address: Post Office Box 247, Northbrook, Ill., 60062.

§ 162.039–6 Examinations, tests, and inspections.

(a) Full examinations, tests, and inspections to determine the suitability of a product for listing and labeling, and to determine conformance of labeled product to the applicable requirements are conducted by the recognized laboratory. Whenever any work is being done on components or the assembly of such product, the manufacturer shall notify the recognized laboratory in order that an inspector may be assigned to the factory to conduct such examinations, inspections, and tests as to satisfy himself that the quality assurance program of the manufacturer is satisfactory, and that the labeled product is in conformance with the applicable requirements.

(b) Manufacturers of listed or labeled marine type semiportable fire extinguishers shall maintain quality control of the materials used, manufacturing methods, and the finished product so as to meet the applicable requirements, and shall make sufficient inspections and tests of representative samples of the extinguishers and various components produced to maintain the quality of the finished product. Records of tests conducted by the manufacturer shall be made available to the laboratory inspector or to the Coast Guard marine inspector, or both, for review upon request.

(c) Followup check tests, examinations, and inspections of product listed and labeled as a "marine type" semiportable fire extinguisher acceptable to the Commandant as approved for use on merchant vessels and motorboats may be conducted by the Coast Guard, as well as by the recognized laboratory.

(d) The laboratory inspector, or the Coast Guard merchant marine inspector assigned by the Commander of the District in which the factory is located, or both, shall be admitted to any place in the factory where work is being done on listed or labeled product, and either or both inspectors may take samples of parts or materials entering into construction, of final assemblies, for further ex-

aminations, inspections, or tests. The manufacturer shall provide a suitable place and the apparatus necessary for the performance of the tests which are done at the place of manufacture.

§ 162.039–7 Procedure for listing and labeling.

(a) Manufacturers having models of extinguishers which they believe are suitable for marine service may make application for listing and labeling of such product as a "marine type" semiportable fire extinguisher which will be acceptable to the Commandant as approved for use on merchant vessels, by addressing a request directly to a recognized laboratory. The laboratory will inform the submitter as to the requirements for inspections, examinations, and testing necessary for such listing and labeling. All costs in connection with the examinations, tests, and inspections, listings and labelings are payable by the manufacturer.

§ 162.039–8 Termination of listing or labeling.

(a) Listing or labeling as a marine type semiportable fire extinguisher acceptable to the Commandant as approved for use on inspected vessels or motorboats may be terminated, withdrawn, canceled, or suspended by written notice to the recognized laboratory from the Commandant, or by written notice to the manufacturer from the recognized laboratory or from the Commandant, under the following conditions:

(1) When the manufacturer does not desire to retain the service.

(2) When the listed product is no longer being manufactured.

(3) When the manufacturer's own program does not provide suitable assurance of the quality of the listed or labeled product being manufactured.

(4) When the product manufactured no longer conforms to the current applicable requirements.

PART 163—CONSTRUCTION

Subpart 163.001—Doors, Watertight, Sliding (and Door Controls), for Merchant Vessels

1. The authority note for Subpart 163.001 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 163.001 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4417, as amended, 4417a, as amended, 4418, as amended, 4426, as amended, 4488, as amended, 4490, as amended, sec. 14, 29 Stat. 690, 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. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 391a, 392, 404, 481, 482, 366, 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. 8857; 167–48, Oct. 19, 1962, 27 F.R. 10504.

PART 164—MATERIALS

Subpart 164.001—Cork, Sheet, for Merchant Vessels

1. The authority note for Subpart 164.001 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 164.001 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, secs. 6, 17, 54 Stat. 164, as amended, 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 367, 526e, 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; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 164.002—Balsa Wood for Merchant Vessels

2. The authority note for Subpart 164.002 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 164.002 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, secs. 6, 17, 54 Stat. 164, as amended, 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 367, 526e, 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; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 164.003—Kapok, Processed

3. The authority note for Subpart 164.003 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 164.003 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4491, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, secs. 6, 17, 54 Stat. 164, as amended, 166, as amended, sec. 3, 54 Stat. 347, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 404, 481, 489, 367, 526e, 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; 167–38, Oct. 26, 1959, 24 F.R. 8857.

Subpart 164.006—Deck Coverings for Merchant Vessels

4. The authority note for Subpart 164.006 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 164.006 interpret or apply R.S. 4417, as amended, 4417a, as amended, 4418, as amended, 4426, as amended, 4488, 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, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 391a, 392, 404, 481, 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. 8857.

5. Part 164 is amended by inserting after § 164.006–5 a new Subpart 164.007, consisting of §§ 164.007–1 to 164.007–4, inclusive, reading as follows:

Subpart 164.007—Structural Insulations for Merchant Vessels

Sec.
164.007–1 Applicable specifications.
164.007–2 Material.
164.007–3 Inspection and testing.
164.007–4 Procedure for approval.

AUTHORITY NOTE: The provisions of this Subpart 164.007 interpret or apply R.S. 4417, as amended, 4417a, as amended, 4418, as amended, 4426, as amended, 4488, 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, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 391a, 392, 404, 481, 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. 8857.

§ 164.007–1 Applicable specifications.

(a) *General.* The following specification and standard, of the issue in effect on the date of manufacture of the structural insulation, shall form a part of this subpart where applicable.

(1) *Coast Guard:*

Subpart 164.009—Incombustible Materials for Merchant Vessels.

(2) *American Society for Testing Materials:*

ASTM–E–119—Fire Tests of Building Construction and Materials.

(b) *Copies on file.* Copies of the specifications referred to in this section shall be kept on file by the manufacturer, together with the certificate of approval. The Coast Guard specification may be obtained upon request from the Commandant, U.S. Coast Guard, Washington, D.C., 20226. The American Society for Testing Materials specification may be purchased from the American Society for Testing Materials, 1916 Race Street, Philadelphia, Pa., 19103.

§ 164.007–2 Material.

(a) "Structural Insulation" shall be of such quality as to successfully meet the requirements for an Incombustible Material as set forth in Subpart 164.009.

(b) Structural Insulation shall be of such quality and thickness as to successfully pass all of the tests set forth in § 164.007–3.

§ 164.007–3 Inspection and testing.

(a) All tests shall be conducted at the National Bureau of Standards or other laboratory designated by the Coast Guard.

(b) *Density measurement.* The smallest sample for density measurements of solid materials shall be 12 by 12 inches by the submitted thickness. Length and width measurements shall be made to the nearest $\frac{1}{32}$ inch, thickness to the nearest 0.01 inch, allowance being made of any nonflatness of the major surfaces of the specimen. Measurements of dimensions of fibrous insulations shall be made to the nearest $\frac{1}{16}$ inch on a nominal 12-inch cube assembled from sheets of thickness received. The average of at least 4 measurements of each dimension shall be reported. The weight shall be determined with a scale

or balance sensitive and accurate to 0.5 percent or less of the total weight. The dimensional and weight measurements shall not be made until the sample has been conditioned 1 week, or longer if required to reach constant weight, in an atmosphere at 73°±2° F. and 50±5 percent relative humidity.

(c) *Content of moisture and volatile matter.* Transfer a weighed sample cut from the density specimen, previously conditioned to equilibrium at 73°±2° F. and 50±5 percent relative humidity, to a previously weighed wide-mouth weighing bottle provided with a glass stopper. Remove the stopper and heat the bottle and sample at 105°±5° C. for 4 hours, insert the stopper, cool, and weigh. Calculate the content of mositure and other volatiles as percent of the final dry weight of the sample.

(d) *Fire resistance test.* (1) Except as modified by this paragraph, the tests shall be conducted in accordance with the American Society for Testing Materials Standard E–119.

(2) Representative samples of the structural insulation, of a thickness or thicknesses and density as specified in § 164.007–4(b), shall be tested as part of a sandwich panel assembly which forms a portion of a vertical wall of a furnace. The assembly shall be at least 40 by 60 inches in size. The insulation shall be held in place between a ⅛ inch steel plate on the outside of the furnace and a 20 gage sheet steel cover plate on the fire side. No metallic fastenings through the insulation shall be used. Spacer strips of asbestos cement board or similar material, up to 2 inches in width, built up to the same thickness as the insulation being tested, shall be installed around the periphery of the panel. Through fastenings for the cover shall be held to a minimum, and shall be made only near the edge of the panel through the spacer strips. Any necessary stiffening members on the sheet metal or the ⅛ inch steel plate shall be installed on the faces not adjacent to the insulation. At least five thermocouples shall be installed between the insulation and the ⅛ inch plate. The thermocouple junctions and any adjoining bare lead wire shall be fitted with asbestos sleeves to prevent contact with the metal. The thermocouples shall be so spaced as to obtain representative temperatures over the center half of the panel area. The furnace shall be heated, and the average furnace temperature as indicated by five or more thermocouples distributed in the furnace shall be controlled according to the standard fire exposure curve reaching 1,700° F. at the end of 1 hour. The reading of all thermocouples shall be recorded at intervals not greater than 5 minutes throughout the test.

(3) Data from these tests shall be analyzed to determine the minimum thickness necessary to limit the average temperature rise on the cooler surface of the insulation to 250° F. above the original temperature or the maximum rise at any one thermocouple location on this surface to 325° F. above the original temperature at the end of 60 minutes.

(e) *Spot check tests.* (1) Structural insulation is not inspected at regularly scheduled factory inspections; however, the Commander of the Coast Guard District in which the plant is located may detail a marine inspector at any time to visit any place where structural insulation is manufactured to conduct any inspections or examinations deemed advisable and to select representative samples for further examination, inspection, or tests. The marine inspector shall be admitted to any place where work is done on structural insulation or component materials.

(2) Manufacturers of approved structural insulation shall maintain quality control of materials used, manufacturing methods, and the finished product so as to meet the requirements of this specification, and any other conditions outlined on the certificate of approval, but the Coast Guard also reserves the right to make spot-check tests of approved structural insulation at any time on samples selected by a marine inspector at the place of manufacture or samples obtained from other sources in the field. The manufacturer will incur no expense for such tests, but the results shall be binding upon the approval of his product. The manufacturer will be advised in advance of the time of testing of the samples selected and may witness the tests if he so desires.

§ 164.007–4 Procedure for approval.

(a) If a manufacturer desires to have a structural insulation approved, a request shall be presented to the Commandant of the Coast Guard together with the following:

(1) If the material has already been approved as an Incombustible Material under Subpart 164.009, the approval number of the material shall be indicated. If the material has not been approved as an Incombustible Material, the procedure set forth in Subpart 164.009 shall be followed; and such approval shall be obtained prior to submittal under this specification.

(2) A description and trade name of the structural insulation.

(3) A statement of the composition of the material and the percentage of each component.

(4) A sample of the material at least 1 foot square in each thickness and density of the material as manufactured.

(5) The range of thicknesses and densities in which it is proposed to manufacture or use the material together with any information or recommendations the manufacturer may have as to maximum or minimum thickness or densities

(6) The location of the place where the material will be manufactured.

(7) Description of attachment to or protection of the bulkhead or deck. If an adhesive is used, a liberal sample shall be supplied.

(b) The above information will be examined by the Coast Guard when the material has been approved as an "Incombustible Material," and if it is indicated that the material is in all respects suitable for testing, the manufacturer will be so advised. The recommended thickness and density of the sample for the fire resistance test will be specified at this time, together with the estimated cost of the required test.

(c) If the material is indicated as being suitable for testing, the manufacturer shall submit the recommended size of samples to the Fire Research Section of the National Bureau of Standards, Washington, D.C., 20234, and shall advise the Coast Guard of the shipment. (A separate test will be made for each density of the material for which approval is desired.)

(d) At this time the manufacturer shall submit to the Coast Guard the following:

(1) A statement that the material as offered for testing and, as described pursuant to paragraph (a)(3) of this section, is completely representative of the product which will be manufactured and sold under U.S. Coast Guard approval if such approval is granted.

(2) A commitment that he will reimburse the National Bureau of Standards for the cost or review of the tests when billed by them.

(3) If the manufacturer desires to witness the test, he should so indicate at this time.

(e) The National Bureau of Standards will then be authorized to conduct the tests noted in § 164.007–3(b) and, upon completion of all testing, the manufacturer will be billed directly by the National Bureau of Standards. Four copies of the test report will be submitted to the Coast Guard.

(f) A copy of the report will be forwarded to the manufacturer and he will be advised if his material is approved under this subpart. If approved, any stipulations of the approval will be specified; and this information will be published in the FEDERAL REGISTER, and an Approval Certificate will be issued to the manufacturer.

(g) If the manufacturer desires to have the tests conducted at some laboratory other than the National Bureau of Standards, this information shall be supplied at the time of initial contact with the Coast Guard. If the proposed laboratory is acceptable to the Coast Guard, the manufacturer will be so advised, and any special testing requirements will be made at this time. The Coast Guard shall be notified in advance of the date of the test so that a representative may be present.

(h) The laboratory shall submit four copies of a detailed test report to the Coast Guard together with representative samples of the material taken before and after testing. The test report and samples will be examined by the National Bureau of Standards for compliance with this subpart. The test report shall include the following information together with any other pertinent data:

(1) Description of the panel tested giving details of the assembly comprising steel plates, insulation (thickness and density), spacer strips and fastening. Also the method of mounting the panel assembly in the test furnace.

(2) Complete time-temperature data, including initial temperature, for each thermocouple together with curves of average temperature for each surface of the insulation.

(3) A log setting forth the observer's notes relative to deflections, cracking or

loosening of the insulation, smoke or gas emission, glow, flame emission, and any other important data. The time of each observation should be noted.

(4) Photographs of both sides of the panel before and after testing. The sheet metal cover should be removed for the photograph after the test.

Subpart 164.008—Bulkhead Panels for Merchant Vessels

6. The authority note for Subpart 164.008 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 164.008 interpret or apply R.S. 4417, as amended, 4417a, as amended, 4418, as amended, 4426, as amended, 4488, 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, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 391a, 392, 404, 481, 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. 8857.

7. Section 164.008-1 is amended to read as follows:

§ 164.008-1 Applicable specifications.

(a) *Specifications.* The following specifications, of the issue in effect on the date of manufacture of the bulkhead panel, shall form a part of this subpart where applicable:

(1) Coast Guard specification:

Subpart 164.009—Incombustible Materials for Merchant Vessels.

(2) American Society for Testing Materials specification:

ASTM E-119—Methods of Fire Tests of Building Construction and Materials.

(b) *Copies on file.* Copies of the specifications referred to in this section shall be kept on file by the manufacturer, together with the certificate of approval. The Coast Guard specification may be obtained upon request from the Commandant, U.S. Coast Guard, Washington, D.C., 20226. The American Society for Testing Materials specification may be purchased from the American Society of Testing Materials, 1916 Race Street, Philadelphia, Pa., 19103.

8. Section 164.008-3(b) (1) and (2) are amended to read as follows:

§ 164.008-3 Inspection and testing.

* * * * *

(b) *Fire resistance and integrity test.* (1) The tests shall be conducted in accordance with the provisions of ASTM E-119, Methods of Fire Tests of Building Construction and Materials. A representative bulkhead panel, of a size as indicated in § 164.008-4(c)(1), shall be installed in a furnace to form part of one wall. The furnace shall be heated and the temperature controlled according to the standard fire exposure curve reaching 1,550° F. at the end of 30 minutes and 1,700° F. at the end of 1 hour. The neutral pressure axis in the furnace shall be located not above the ⅓ height of the test specimen. The temperature of the nonfire exposed side, as indicated by nine thermocouples under 6-inch by 6-inch by 0.40-inch thick felted asbestos pads, three of which thermocouples shall be located on the joints (less than nine will be given special consideration by the Coast Guard), shall be observed at intervals not greater than 3 minutes during the test. The test shall be continued for at least 30 minutes to meet the requirements of § 164.008-2(b) or at least 60 minutes to meet the requirements of § 164.008-2(c). In either case, the test shall not be stopped before the maximum surface temperature rise values noted in subparagraph (2) of this paragraph have been reached. The observed temperature values will be used in determining the maximum temperature rises of the panel.

(2) Data from these tests shall be analyzed to determine the minimum thickness necessary to limit the temperature rise at any thermocouple on the nonfire exposed surface, including the joint, to 405° F. and an average rise of not more than 250° F. above the original temperature at the end of 15 minutes. Where failure is due to excessive temperature rise on the joint, consideration will be given to alternate joint construction.

* * * * *

9. Section 164.008-4 is amended by revising the text thereof but Figure No. 164.008-4(c)(1) is retained in effect without change, and the text reads as follows:

§ 164.008-4 Procedure for approval.

(a) If a manufacturer desires to have a bulkhead panel approved, a request shall be presented to the Commandant of the Coast Guard together with the following:

(1) If the material has already been approved as an "Incombustible Material" under Subpart 164.009, the approval number of the material shall be indicated. If the material has not been approved as an "Incombustible Material," the procedure set forth in Subpart 164.009 shall be followed; and such approval shall be obtained prior to submittal under this specification.

(2) The description and trade name of the bulkhead panel.

(3) A statement of the composition of the material and the percentage of each component.

(4) A sample of the material at least 1 foot square in each thickness and density of the material as manufactured.

(5) The range of thicknesses and/or densities in which it is proposed to manufacture or use the material, together with any information or recommendations the manufacturer may have as to maximum or minimum thicknesses or densities.

(6) The location of the place where the material will be manufactured.

(b) The above information will be examined by the Coast Guard when the material has been approved as an "Incombustible Material," and it is indicated that the material is in all other respects suitable for testing, the manufacturer will be so advised. The recommended thickness and density of the panel for the fire resistance and integrity test and the estimated cost of the tests will be specified at this time.

(c) If the material is indicated as being suitable for testing, the manufacturer shall submit the samples required by subparagraph (1) of this paragraph to the Fire Research Section of the National Bureau of Standards, Washington, D.C., 20234, and shall advise the Coast Guard of the shipment.

(1) One representative panel of the material having a surface approximately 50 square feet and a height of 8 feet containing at least one vertical joint, located at approximately ⅓ panel width from one edge (20-24 inches). A sketch of the furnace is shown in Figure 164.008-4(c)(1). If the manufacturer desires to submit the panel in thickness or size other than that recommended, prior approval shall be obtained from the Commandant. The manufacturer shall supply any labor required for fabrication of the panel and for attaching the panel to the frame for testing, as necessary.

(d) At this time the manufacturer shall submit to the Coast Guard the following:

(1) A statement that the material as offered for testing and as described pursuant to § 164.008-4(a)(3) is completely representative of the product which will be manufactured and sold under U.S. Coast Guard approval if such approval is granted.

(2) A commitment from the manufacturer that he will reimburse the National Bureau of Standards for the cost of the tests or review when billed by them.

(3) If the manufacturer desires to witness the test, he should so indicate at this time.

(e) The National Bureau of Standards will then be authorized to conduct the test noted in § 164.008-3(b) and four copies of the report will be submitted to the Coast Guard.

(f) A copy of the report will be forwarded to the manufacturer, and he will be advised if his material is approved under this Subpart. If approved, any stipulations of the approval will be specified. This information will be published in the FEDERAL REGISTER, and a Certificate of Approval will be issued to the manufacturer.

(g) If the manufacturer desires to have the tests conducted at some laboratory other than the National Bureau of Standards, this information shall be supplied at the time of initial contact with the Coast Guard. If the proposed laboratory is acceptable to the Coast Guard, the manufacturer will be so advised and any special testing requirements together with an estimated cost of expenses incurred by the National Bureau of Standards for their review will be specified at this time. Payment will be made as noted in subparagraph (d)(2) of this section. The Coast Guard shall be notified in advance of the date of the test so that a representative may be present. The laboratory shall submit four copies of a detailed test report to the Coast Guard, together with representative samples of the material taken before and after testing. The test report and samples will be examined by the National Bureau of Standards for compliance with this Subpart. The test report shall include the following information together with any other pertinent data:

(1) Description of the panel tested giving size, thickness, density, detail of

joint and method of assembling in furnace.

(2) Complete time-temperature data consisting of a numerical time-temperature table for each furnace and panel thermocouple together with the initial temperature reading of each thermocouple.

(3) A log setting forth the observer's notes relative to deflections, cracking, smoke and gas emission, glow, flame emission, and any other important data. The time of each observation should be noted.

(4) Photographs of both sides of the panel before and after testing.

Subpart 164.009, consisting of §§ 164.009–1 to 164.009–4, inclusive, is amended to read as follows:

Subpart 164.009—Incombustible Materials for Merchant Vessels

Sec.

AUTHORITY NOTE: The provisions of this Subpart 164.009 interpret or apply R.S. 4417, as amended 4417a, as amended, 4418, as amended, 4426, as amended, 4488, 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, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 391a, 392, 404, 481, 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. 8857.

§ 164.009–1 Applicable specifications.

(a) There are no other specifications applicable to this subpart.

§ 164.009–2 Material.

(a) Incombustible materials may be of any type such as board, sheet, loose material, etc.

(b) The following materials will be considered as automatically meeting the requirements of this subpart. No tests will be required, and no specific approvals will be granted.

(1) Sheet glass, block glass, clay, ceramics, or uncoated glass fibers.

(2) All metals except magnesium or magnesium alloys.

(3) Portland cement, gypsum, or magnesite concretes with aggregates of only sand, gravel, asbestos fibers, expanded vermiculite, expanded or vesicular slags, diatomaceous silica, perlite, or pumice.

(4) Asbestos millboard meeting the requirements of Federal Specification HH–M–351a. This specification may be purchased from the Business Services Center, General Services Administration, Washington, D.C., 20407.

(5) Woven asbestos cloth meeting the requirements of ASTM Standard Specification D–1571, Grades AAA and AAAA. This standard may be purchased from the American Society for Testing Materials, 1916 Race Street, Philadelphia, Pa., 19103.

(6) Woven or knitted glass fabric containing not more than 2.5 percent lubricant.

(c) All materials not listed in paragraph (b) of this section shall be checked for density, content of moisture and volatile matter, and shall pass the heated tube test for incombustibility noted in § 164.009–3(d).

(d) Fibrous-type insulation materials shall pass the reheating test noted in § 164.009–3(e) in addition to the heated tube test.

§ 164.009–3 Inspection and testing.

(a) *Tests.* All tests shall be conducted at the National Bureau of Standards or other laboratories designated by the Coast Guard. Tests conducted shall include density, moisture and volatile content, and heated tube tests.

(b) *Density measurement.* (1) The smallest sample for density measurements of solid materials shall be 12 by 12 inches by the submitted thickness. Length and width measurements shall be made to the nearest $\frac{1}{32}$ inch, thickness to the nearest 0.01 inch, allowance being made of any nonflatness of the major surfaces of the specimen. Measurements of dimensions of fibrous insulations shall be made to the nearest $\frac{1}{16}$ inch on a nominal 12-inch cube assembled from sheets of the thickness received. The average of at least four measurements of each dimension shall be reported. The weight shall be determined with a scale of balance sensitive and accurate to 0.5 percent or less of the total weight. The dimensional and weight measurements shall not be made until the sample has been conditioned one week, or longer if required to reach constant weight, in an atmosphere at 73°±2° F., and 50±5 percent relative humidity.

(c) *Content of moisture and volatile matter.* (1) Transfer a weighed sample cut from the density specimen, previously conditioned to equilibrium at 73°±2° F. and 50±5 percent relative humidity, to a previously weighed wide-mouth weighing bottle provided with a glass stopper. Remove the stopper and heat the bottle and sample at 105°±5° C. for 4 hours, insert the stopper, cool, and weigh. Calculate the content of moisture and other volatiles as percent of the final dry weight of the sample.

(d) *Heated tube test.* (1) Three specimens, each 1½ by 1½ by 2 inches long shall be prepared from the sample submitted and dried at a temperature of 105°±5° C. for 4 hours before the test. Each specimen shall be assembled using a sufficient number of layers to obtain the prescribed 1½-inch thickness, except that thin flexible materials may be rolled into a cylindrical shape approximately 2 inches long and 1½ inches in diameter or made into a solid 2 by 1½ by 1½ inches by layers. A hole which will accommodate a thermocouple of 0.020 inch wire shall be made to the center of the specimen into which a thermocouple of the above size shall be inserted to register the internal temperature. An additional thermocouple of the same size shall be located on the surface of the specimen centered on one side to show the temperature at the surface for indicating any difference in temperature recorded by the two thermocouples.

(2) The test shall be conducted in an apparatus similar to that described in Figure 164.009–3(d). This apparatus shall be capable of developing and maintaining a temperature of 750° C. in the heated tube.

(3) The heated tube shall be brought up to and maintained at a temperature of 750° C. as evidenced by a thermocouple of 0.020 inch wire which is inserted from the top of the heated tube and located 6 inches below the top of the heated tube. During the initial heating and during the test, an air flow of 0.1 cubic foot per minute shall be supplied from the bottom of the tube at standard atmospheric temperature and pressure. When the inserted thermocouple has reached a steady 750° C., the temperature recorded by a thermocouple located at the wall of the heated tube and shown as T_t, on Figure 164.009–3(d) shall be noted and maintained throughout the test.

(4) When the heated tube has reached 750° C., the inserted thermocouple shall be removed and the sample with thermocouples attached shall be suspended as rapidly as possible in the heated tube with its long axis vertical by a 0.020 inch diameter steel wire around the outside of the specimen. The bottom of the suspended specimen shall be 7 inches below the top of the inner tube. Energize the platinum wire to operate at an apparent temperature of 800°±50° C. Readings of the temperature at the three thermocouples shall be taken and recorded not less than every 15 seconds or greater than every minute and the test shall continue for 15 minutes unless failure occurs before that time.

(5) In order to pass this test, each of the three specimens shall meet the conditions noted below for the duration of the 15-minute interval. For fibrous-type insulation materials these conditions will only be applicable to the last 13 minutes of the 15-minute interval.

(i) The specimen shall not flame, except that flame from painted or paper coated surfaces may be permitted for not longer than 30 seconds during the first 2 minutes.

(ii) The specimen shall not glow brighter than the walls of the heated tube. If glowing at all, the glow shall not increase when the specimen is removed from the heated tube.

(iii) The temperatures as indicated by the thermocouples located at the center and on the surface of the specimen shall not rise more than 20° C. above the heated tube air temperature.

(iv) During the test, the specimen shall not give off flammable vapors in such quantity so as to be ignited by the energized platinum wire.

(e) *Reheating test.* (1) Two specimens of the material, each 12 by 12 by 6 inches, shall be prepared so that when placed one on top of the other they form a cube 1 foot on a side. A piece of steel weighing approximately ½ pound consisting of a $1\frac{1}{16}$-inch length of 1¼-inch shafting with a thermocouple attached to its side shall be heated uniformly throughout its mass to more than 900° C. The temperature of the steel shall be observed as it cools in room air, free of drafts and it shall be inserted between the two specimens in the center of the faying surfaces when the surface temperature reaches 900° C. In the case of rigid or semirigid type materials, hollows shall be cut in the two faying surfaces in the shape of the shaft so that contact of the two surfaces will be made.

Three thermocouples shall be installed between the two faying surfaces at 1, 2, and 3 inches from the shafting, and a ⅛ inch steel plate 1 foot square shall be placed on top of the cube to insure a uniform pressure between the two specimens. Readings of the three thermocouples between the specimens and the thermocouple attached to the shafting shall be made at intervals not greater than 5 minutes for the first 2 hours, and 10 minutes thereafter. The test shall continue until such time as the temperatures indicated by all four thermocouples are less than 200° C., or until it is indicated that the material has failed to pass the test.

(2) In order to pass this test, all of the following conditions shall be met:

(i) There shall be no indication of flame or glow on the exterior of the cube during the test.

(ii) The shafting temperature at any reading shall not be greater than at any previous reading.

(iii) None of the three thermocouples between the faying surfaces shall at any instance indicate a temperature of more than 10° C. above the temperature of the shafting at that time.

(f) *Spot check tests.* (1) Incombustible materials are not inspected at regularly scheduled factory inspections; however, the Commander of the Coast Guard District in which the plant is located, may detail a marine inspector at any time to visit any place where incombustible materials are manufactured to conduct any inspections or examinations deemed advisable and to select representative samples for further examination, inspection, or tests. The marine inspector shall be admitted to any place where work is done on incombustible materials or component materials.

(2) Manufacturers of approved incombustible materials shall maintain quality control of materials used, manufacturing methods, and the finished product so as to meet the requirements of this specification, and any other conditions outlined on the certificate of approval, but the Coast Guard also reserves the right to make spot-check tests of approved incombustible materials at any time on samples selected by a marine inspector at the place of manufacture or samples obtained from other sources in the field. The manufacturer will incur no expense for such tests, but the results shall be binding upon the approval of his product. The manufacturer will be advised in advance of the time of testing of the samples selected and may witness the tests if he so desires.

§ 164.009–4 Procedure for approval.

(a) If a manufacturer desires to have an incombustible material approved, a request shall be presented to the Commandant of the Coast Guard together with the following:

(1) The trade name of the material.

(2) A sample of the material at least 1 foot square in each thickness and density of the material as manufactured.

(3) The range of thicknesses and/or densities in which it is proposed to manufacture or use the material together with any information or recommendation the manufacturer may have as to maximum or minimum thicknesses or densities.

(4) A statement of the composition of the material and the percentage of each component in each density.

(5) The location of the place where the material will be manufactured.

(b) The information and samples furnished pursuant to paragraph (a) of this section will be examined by the Coast Guard. If the material appears to be suitable for testing, the manufacturer will be so advised. The size of the samples to be submitted for testing and the cost will be specified at this time.

(c) If the material is indicated as being suitable for testing the manufacturer shall submit the following to the Coast Guard:

(1) Samples of the material as specified.

(2) A statement that the material as offered for testing and as described pursuant to paragraph (a)(4) of this section is completely representative of the product which will be manufactured and sold under U.S. Coast Guard approval if such approval is granted.

(3) If the manufacturer desires to witness the test, he should so indicate at this time.

(4) A commitment that he will reimburse the National Bureau of Standards for the cost of the tests when billed by them.

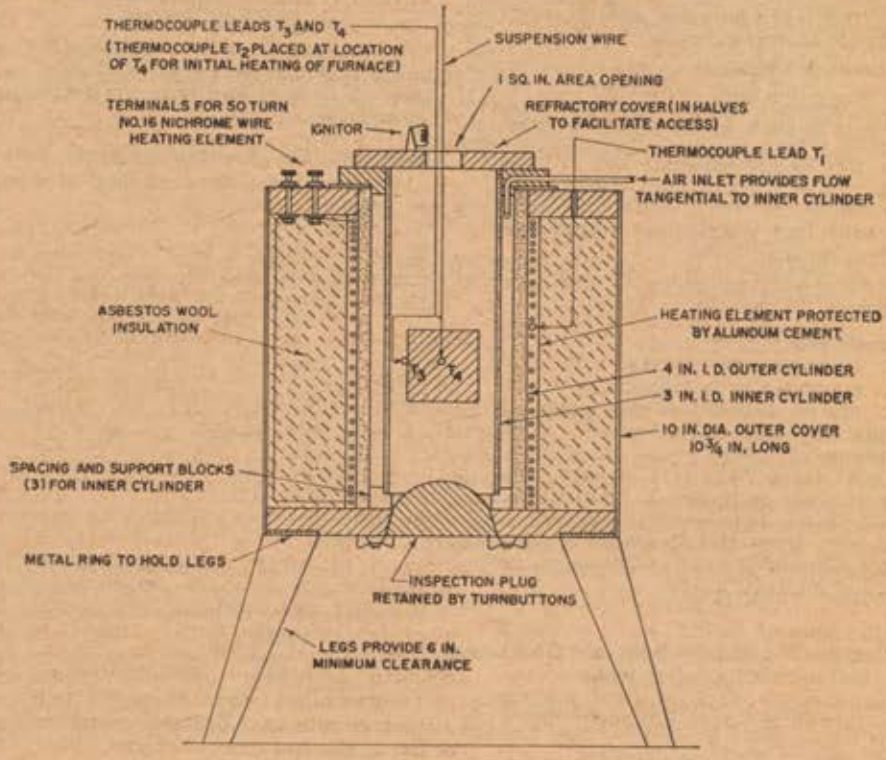
(d) The National Bureau of Standards will then be authorized to conduct the tests noted in § 164.009–3 and four copies of the report will be submitted to the Coast Guard.

(e) A copy of the test report will be forwarded to the manufacturer, and he will be advised if his material is approved under this subpart. If approved, any stipulations of the approval will be specified. This information will be published in the FEDERAL REGISTER, and an Approval Certificate will be issued to the manufacturer.

(f) If the manufacturer desires to have the tests conducted at some laboratory other than the National Bureau of Standards, this information shall be supplied at the time of the initial contact with the Coast Guard. If the proposed laboratory is acceptable to the Coast Guard, the manufacturer will be so advised and any special testing requirements will be made at this time. The Coast Guard shall be notified in advance of the date of the test so that a representative may be present. The laboratory shall submit four copies of the test report to the Coast Guard together with representative samples of the material taken before and after testing. The test report and samples will be examined by the National Bureau of Standards for compliance with this subpart. The test report shall include the following information together with any other pertinent data:

(1) Complete time-temperature data for each thermocouple for both the heated tube and reheating tests.

(2) A log setting forth the observer's notes relative to smoke or gas emission, glow, flame emission, and any other important data. The time of each observation should be noted.



SECTION THROUGH FURNACE

T_1—Auxiliary Thermocouple.
T_2—Heated Tube Temperature.
T_3—Internal Temperature of Specimen.
T_4—Surface Temperature of Specimen.

Figure 164.009–3(d).

Subpart 164.012—Interior Finishes for Merchant Vessels

11. The authority note for Subpart 164.012 is amended to read as follows:

AUTHORITY NOTE: The provisions of this Subpart 164.012 interpret or apply R.S. 4417, as amended, 4417a, as amended, 4418, as amended, 4426, as amended, 4488, 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, 70 Stat. 152, sec. 3, 68 Stat. 675; 46 U.S.C. 391, 391a, 392, 404, 481, 489, 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. 8857.

Subpart 164.013—Foam, Unicellular Polyethylene (Buoyant, Slab, Slitted Trigonal Pattern)

12. The heading for Subpart 164.013 is amended to read as set forth above.

SUBCHAPTER R—NAUTICAL SCHOOLS

PART 167—PUBLIC NAUTICAL SCHOOL SHIPS

1. The authority for Part 167 is amended to read as follows:

AUTHORITY: The provisions of this Part 167 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, 4433, as amended, 4450, as amended, 4453, as amended, 4488, as amended, secs. 1 and 2, 49 Stat. 1544, 1545, as amended, sec. 3, 70 Stat. 152, sec. 3, 68 Stat. 675, sec. 8, 75 Stat. 403; 46 U.S.C. 391, 392, 404, 411, 239, 222, 481, 489, 363, 367, 390b, 50 U.S.C. 198, 33 U.S.C. 1007; 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; 167-46, Nov. 6, 1961, 26 F.R. 10609.

Subpart 167.45—Special Firefighting and Fire Prevention Requirements

2. Section 167.45-1(a) is amended by adding at the end thereof a new subparagraph (9) reading as follows:

§ 167.45-1 Steam and inert-gas fire extinguishing systems.

(a) *General requirements.* * * *

(9) Regarding the limitations on the use of steam smothering in subparagraph (2) of this paragraph, 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 167.65—Special Operating Requirements

3. Subpart 167.65 is amended by inserting after § 167.65-50 a new § 167.65-55, which reads as follows:

§ 167.65-55 Posting placards containing instructions for launching and inflating inflatable liferafts.

(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 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.

SUBCHAPTER T—SMALL PASSENGER VESSELS (UNDER 100 GROSS TONS)

PART 175—GENERAL PROVISIONS

Subpart 175.05—Application

§ 175.05-1 [Amended]

1. Section 175.05-1 *Vessels subject to the requirements of this subchapter* is amended by changing in paragraph (a)(1), footnote 6 to Table 175.05-1(a), and paragraph (d) the phrase from "International Convention for the Safety of Life at Sea, 1948," to "International Convention for Safety of Life at Sea, 1960."

The statutory provisions interpreted or applied cited after § 175.05-1(a)(1) and (d) are amended to read as follows:

(Sec. 4, 70 Stat. 153; 46 U.S.C. 390c; E.O. 11239; 3 CFR 1965 Supp.)

PART 176—INSPECTION AND CERTIFICATION

1. Subpart 176.35, consisting of §§ 176.35-1 through 176.35-10, is amended by revising the heading and text to read as follows:

Subpart 176.35—International Convention for Safety of Life at Sea, 1960

Sec.

AUTHORITY: The provisions of this Subpart 176.35 interpret or apply E.O. 11239.

§ 176.35-1 Vessels subject to requirements.

(a) Except as otherwise provided in this subpart, all mechanically propelled vessels registered in the United States or the Commonwealth of Puerto Rico, which carry more than 12 passengers on an international voyage as defined in § 176.35-5 or § 176.35-10 shall be in compliance with the applicable requirements of the International Convention for Safety of Life at Sea, 1960.

(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."

(c) 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.

(d) 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.

(e) 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.

§ 176.35-5 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) For the purposes of this subchapter vessels shall not be considered as being on an "international voyage" when "solely navigating the Great Lakes of North American 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."

(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) Any Officer in Charge, Marine Inspection, can furnish information as to the countries to which the Convention applies. These countries include the continental United States, Alaska, Hawaii, and the Commonwealth of Puerto Rico.

§ 176.35–10 Voyage between Continental United States and Hawaii or Alaska or between Hawaii and Alaska.

(a) 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.

§ 176.35–15 Passenger Ship Safety Certificate.

(a) All vessels, which carry more than 12 passengers on an international voyage, are required to have a "Passenger Ship Safety Certificate."

(b) Any such vessel which is less than 100 gross tons shall meet the applicable requirements of this chapter for vessels on an international voyage.

§ 176.35–20 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.

§ 176.35–25 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 § 176.01–40 for a certificate of inspection.

§ 176.35–30 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 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 180—LIFESAVING EQUIPMENT

1. The authority for Part 180 is amended to read as follows:

AUTHORITY: The provisions of this Part 180 issued under R.S. 4405, as amended, 4462, as amended, sec. 3, 70 Stat. 152; 46 U.S.C. 375, 416, 390b. Interpret or apply R.S. 4417, as amended, 4418, as amended, 4421, as amended, 4426, as amended, 4453, as amended, 4488, as amended, 46 U.S.C. 391, 392, 399, 404, 435, 481. Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, October 26, 1959, 24 F.R. 8857. Other statutory provisions interpreted or applied are cited to text in parentheses.

Subpart 180.05—General Provisions Pertaining to Lifesaving Equipment

§ 180.05–1 [Amended]

2. Section 180.05–1 *Equipment of an approved type* is amended by deleting from subparagraph (b)(6) reference to specification Subparts identified as "160.003, 160.004."

(R.S. 4491, as amended, secs. 6, 17, 54 Stat. 164, as amended, 166, as amended; 46 U.S.C. 489, 526e, 526p. Treasury Department Order 120, July 31, 1950, 15 F.R. 6521)

Subpart 180.25—Life Preservers

3. Section 180.25–1 is amended to read as follows:

§ 180.25–1 Type required.

(a) All life preservers shall be of an approved type.

(b) 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.

(c) 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 180.30—Ring Life Buoys and Waterlights

4. Section 180.30–5 is amended by adding a new paragraph (d) reading as follows:

§ 180.30–5 Number and size required.

* * * * *

(d) *S and L.* Ring life buoys used on a vessel on an international voyage shall be orange in color.

(E.O. 11239; 3 CFR, 1965 Supp.)

PART 185—OPERATIONS

Subpart 185.05—Penalties

Section 185.05–1(b) is amended to read as follows:

§ 185.05–1 General.

* * * * *

(b) In addition to the foregoing, any licensed or certificated personnel committing an act of misbehavior, negligence, unskillfulness, endangering life, willful violation of marine safety statutes or regulations or requirements thereunder, and incompetency shall be subject to proceedings under the provisions of R.S. 4450, as amended (46 U.S.C. 239), and regulations thereunder (Part 137 of this chapter) with respect to suspension or revocation of license or certificate.

Subpart 185.25—Preparations for Emergencies

2. Subpart 185.25 is amended by inserting after § 185.25–5 a new § 185.25–7, which reads as follows:

§ 185.25 Posting placards containing instructions for launching and inflating inflatable liferafts.

(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.

(R.S. 4405, as amended, 4462, as amended, sec. 3, 70 Stat. 152; 46 U.S.C. 375, 416, 390b. Interpret or apply R.S. 4417, as amended, 4418, as amended, 4426, as amended, 4453, as amended; 46 U.S.C. 391, 392, 404, 435. Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167–20, June 18, 1956, 21 F.R. 4894; CGFR 56–28, July 24, 1956, 21 F.R. 5659; 167–38, October 26, 1959, 24 F.R. 8857)

Dated: September 1, 1965.

[SEAL] E. J. ROLAND,
Admiral, U.S. Coast Guard,
Commandant.

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