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Title 46—SHIPPING

Chapter I—Coast Guard, Department of Transportation

SUBCHAPTER B—MERCHANT MARINE OFFICERS AND SEAMEN

[CGFR 67-36]

PART 10—LICENSING OF OFFICERS AND MOTORBOAT OPERATORS AND REGISTRATION OF STAFF OFFICERS

Miscellaneous Amendments

Pursuant to the notice of proposed rule making published in the FEDERAL REGISTER of January 24, 1967 (32 F.R. 795–807) and the Merchant Marine Council Public Hearing Agenda dated March 20, 1967 (CG–249), the Merchant Marine Council held a public hearing on March 20, 1967 for the purpose of receiving comments, views, and data. The proposals considered were identified as Items PH 1–67 to PH 13–67, inclusive. Item PH 12–67 contains proposals regarding merchant marine officers and seamen (CG–249, pages 198 to 202, inclusive), and these proposals are adopted and set forth in this document.

The oral and written comments received were considered and no changes in text of proposals were made. An editorial amendment to 46 CFR 10.25–9(a) (2) was adopted. The Merchant Marine Council's action with respect to comments received are approved.

By virtue of the authority vested in me as Commandant, U.S. Coast Guard, by section 632 of Title 14, U.S. Code, and Department of Transportation Order 1100.1, dated March 31, 1967 (49 CFR 1.4(a)(2), 32 F.R. 5606), to promulgate regulations in accordance with the laws cited with the regulations below, the following amendments are prescribed and shall be effective upon the date of publication in the FEDERAL REGISTER:

1. The authority for Part 10 is amended to read as follows:

AUTHORITY: The provisions of this Part 10 issued under R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416; Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(c)(2), 32 F.R. 5606; except as otherwise noted.

Subpart 10.02—General Requirements for All Deck and Engineer Officers' Licenses

2. The authority note for Subpart 10.02 is amended to read as follows:

AUTHORITY: The provisions of this Subpart 10.02 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4427, as amended, 4438, as amended, 4438a, as amended, 4439, as amended, 4440, as amended, 4441, as amended, 4442, as amended, 4443, as amended, 4445, as amended, sec. 2, 29 Stat. 188, as amended, sec. 1, 34 Stat. 1411, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 3, 70 Stat. 152, and sec. 3, 63 Stat. 675; 46 U.S.C. 391a, 404, 405, 224, 224a, 226, 228, 229, 214, 230, 231, 225, 237, 367, 390b, 50 U.S.C. 198; Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606; except as otherwise noted.

3. Section 10.02–19(a) is amended to read as follows:

§ 10.02–19 Reexaminations and refusal of licenses.

(a) Any applicant for license or endorsement who has been duly examined and refused may come before the same Officer in Charge, Marine Inspection, for reexamination at any time thereafter that may be fixed by such Officer in Charge, Marine Inspection, but such time shall not be less than 1 month from the date of his last failure. In the case of another failure, he will not be reexamined until after a lapse of at least 3 months from the date of the second or subsequent failures.

• • • • •

Subpart 10.05—Professional Requirements for Deck Officers' Licenses (Inspected Vessels)

4. The authority note for Subpart 10.05 is amended to read as follows:

AUTHORITY: The provisions of this Subpart 10.05 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4427, as amended, 4438, as amended, 4438a, as amended, 4439, as amended, 4440, as amended, 4442, as amended, 4443, as amended, 4445, as amended, sec. 1, 34 Stat. 1411, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 3, 70 Stat. 152, and sec. 3, 63 Stat. 675; 46 U.S.C. 391a, 404, 405, 224, 224a, 226, 228, 214, 230, 231, 239, 225, 237, 367, 390b, 50 U.S.C. 198; Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606; except as otherwise noted.

5. Section 10.05–5(b) is amended by revising the introductory text, but not the subparagraphs (1) to (4), inclusive, so that the introductory material reads as follows:

§ 10.05–5 Master of coastwise steam or motor vessels.

• • • • •

(b) The minimum service required to qualify an applicant for a license as master of steam or motor vessels of not more than 500 gross tons, operated in connection with the offshore mineral and oil industries, limited to a stated distance offshore on the continental shelf of the Atlantic, Gulf, or Pacific Coast of the United States, as determined by the Commander of the District in which the license is issued, is:

• • • • •

6. Section 10.05–28 is amended to read as follows:

10.05–28 Mate of steam or motor vessels engaged in offshore mineral and oil industries.

(a) The minimum service required to qualify an applicant for a license as mate of steam or motor vessels of not more than 500 gross tons, operated in connection with the offshore mineral and oil industries, limited to a stated distance offshore on the continental shelf of the Atlantic, Gulf, or Pacific Coast of the United States, as determined by the Commander of the District in which the license is issued, is:

(1) Two years' service as a licensed officer in charge of a deck watch on mineral or oil industry vessels; or

(2) One year's service as master or first-class pilot of inland steam or motor vessels plus 6 months in the deck department of coastwise vessels or mineral or oil industry vessels; or

(3) One year's service as a licensed master or 2 years' service as a licensed mate of ocean or coastwise uninspected vessels; or

(4) Three years' service in the deck department of ocean or coastwise steam or motor vessels, including mineral and oil industry vessels.

7. Section 10.05–29(a)(3) is amended to read as follows:

§ 10.05–29 Second mate of ocean steam or motor vessels.

(a) • • •

(3) Five years' service in the deck department of ocean or coastwise steam or motor vessels of 1,000 gross tons or over, 2 years of which shall have been as boatswain, able seaman, or quartermaster while holding a certificate as able seaman; or,

• • • • •

8. Section 10.05–31(a)(2) is amended to read as follows:

§ 10.05–31 Second mate of coastwise steam or motor vessels.

(a) • • •

(2) Five years' service in the deck department of ocean or coastwise steam or motor vessels, 2 years of which shall have been as boatswain, able seaman or quartermaster while holding a certificate as able seaman; or,

• • • • •

Subpart 10.10—Professional Requirements for Engineer Officers' Licenses (Inspected Vessels)

9. The authority note for Subpart 10.10 is amended to read as follows:

AUTHORITY: The provisions of this Subpart 10.10 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4427, as amended, 4438, as amended, 4438a, as amended, 4441, as amended, 4443, as amended, 4445, as amended, 4447, as amended, sec. 2, 39 Stat. 168, as amended, sec. 1, 34 Stat. 1411, as amended, secs. 1, 2, 49 Stat. 1544, 1545, as amended, sec. 8, 70 Stat. 158, and sec. 3, 68 Stat. 675; 46 U.S.C. 391a, 404, 405, 224, 224a, 229, 230, 231, 283, 225, 237, 367, 390b, 50 U.S.C. 198; Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606; except as otherwise noted.

Subpart 10.13—Licensing of Radio Officers

10. The authority note for Subpart 10.13 is amended to read as follows:

AUTHORITY: The provisions of this Subpart 10.13 interpret or apply secs. 1–8, 62 Stat. 232–234; 46 U.S.C. 229a–229h; Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606; except as otherwise noted.

Subpart 10.15—Licensing of Officers for Uninspected Vessels

11. The authority note for Subpart 10.15 is amended to read as follows:

AUTHORITY: The provisions of this Subpart 10.15 interpret or apply R.S. 4438a, as amended; 46 U.S.C. 224a; Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606; except as otherwise noted.

Subpart 10.20—Motorboat Operators' Licenses

12. The authority note for Subpart 10.20 is amended to read as follows:

AUTHORITY: The provisions of this Subpart 10.20 interpret or apply secs. 7, 17, 54 Stat. 165, as amended, 166, as amended; 46 U.S.C. 526f, 526p; Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606; except as otherwise noted.

Subpart 10.25—Registration of Staff Officers

13. The authority note for Subpart 10.25 is amended to read as follows:

AUTHORITY: The provisions of this Subpart 10.25 interpret or apply sec. 7, 53 Stat. 1147, as amended; 46 U.S.C. 247; Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606; except as otherwise noted.

14. Section 10.25–9(a) is amended by redesignating subparagraph (6) to (7) and by inserting a new subparagraph (6) so that these subparagraphs read as follows:

§ 10.25–9 Experience requirements.

(a) • • •

(6) *Junior assistant purser and pharmacist's mate.* (i) A rating of at least hospitalman, first-class in the U.S. Navy, U.S. Coast Guard, U.S. Marine Corps, or an equivalent rating in the U.S. Army (not less than staff sergeant, Medical Department, U.S.A.) or in the U.S. Air Force (not less than technical sergeant, Medical Department, U.S.A.F.), and a period of service of at least 1 month in a military or U.S. Public Health Service hospital.

(ii) Evidence of successful completion of a course of training for the rating of pharmacist's mate, approved by the Commandant, will be acceptable as qualifying for the rating of pharmacist's mate to be endorsed on the certificate of registry of staff officers in any of the purser ratings.

(7) *Professional nurse.* A valid license as a registered nurse issued under the authority of a State or territory of the United States, the Commonwealth of Puerto Rico, or the District of Columbia.

• • • • •

Dated: May 26, 1967.

P. E. TRIMBLE,
Vice Admiral, U.S. Coast Guard,
Acting Commandant.

[F.R. Doc. 67-6086; Filed, May 31, 1967; 8:47 a.m.]

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35459 CGHQ. WASH., D.C.

Title 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

[CGFR 66–72]

WATER LIGHTS OF OPEN FLAME TYPE

Prohibition on Vessels Attending Offshore Petroleum Operations

The areas surrounding drilling rigs engaged in offshore petroleum operations may be exposed to or have in the immediate vicinity thereof flammable or explosive vapor mixtures. Under all circumstances it is desirable to reduce to a minimum the possibilities of fire or explosion. One means is to prohibit the use of water lights of an open flame type, such as a calcium-carbide light, to be provided with ring life buoys intended for emergency use when people are overboard. The National Offshore Advisory Panel to the Merchant Marine Council at its meeting held August 18, 1966, noted that a potentially dangerous situation existed in connection with offshore petroleum operations. Some vessels now attending drilling rigs are not tank vessels and therefore not subject to the prohibition concerning calcium-carbide water lights on tank vessels. These vessels not subject to the tank vessel regulations may have on board ring life buoys with water lights of an open flame type attached. Their officers and crewmembers may not realize nor recognize the potential hazards involved if such lights are used in an emergency or actuated for any reason. If a person falls into the water, the normal reaction is to use the lifesaving equipment available and intended for such use. If the water light attached to the ring life buoy happens to be one of an open flame type, its use introduces a dangerous fire hazard and may create a ve[illegible] casualty.

The prohibitions regarding the use of water lights of an open flame type on vessels attending offshore petroleum operations are in amendments designated 46 CFR 75.43–5(b), 75.43–90(a)(2), 94.43–5(b), 94.43–90(a)(2), and 180.30–1(b), as set forth in this document. Because of the potentially dangerous conditions which may arise if vessels attending offshore petroleum operations use or actuate water lights of an open flame type in areas surrounding drilling rigs, it is found that compliance with the Administrative Procedure Act (respecting notice of proposed rule making, public rule making procedures thereon, and effective date requirements) is contrary to the public interest with respect to the regulations in this document, and therefore are exempt from such requirements under the provisions of section 4 of that Act (5 U.S.C. 553).

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

A. Vessels attending offshore petroleum operation equipped with water lights of an open flame type shall replace such lights with approved electrical water lights manufactured pursuant to specifications in 46 CFR Subpart 161.001 as soon as practicable, but in no event later than July 1, 1967. On and after July 1, 1967, no vessel attending offshore petroleum operations is permitted to carry water lights which produce an open flame when used or actuated, and such lights shall be removed from the vessel.

B. For vessels attending offshore petroleum operations, the owners, operators, or agents are requested to bring to the attention of masters and crewmembers information about potential hazardous conditions which may develop if a fire or spark occurs, including the use of a calcium-carbide water light or any water light of an open flame type, when the vessel is in the area of drilling rigs where there may be flammable or explosive vapor mixtures present.

C. The regulation amendments in this document shall be effective on date of publication of this document in the FEDERAL REGISTER and 46 CFR Chapter I shall be amended as indicated in this document.

SUBCHAPTER H—PASSENGER VESSELS

PART 75—LIFESAVING EQUIPMENT

Subpart 75.43—Ring Life Buoys and Water Lights

1. Section 75.43–5(b) is amended to read as follows:

§ 75.43–5 General.

* * * * *

(b) All water lights shall be of an approved type, constructed in accordance with Subparts 160.012 or 161.001 of Subchapter Q (Specifications) of this chapter: *Provided*, That water lights which produce an open flame are not permitted and shall be removed from vessels attending offshore petroleum operations.

* * * * *

2. Section 75.43–90(a) is amended by adding a subparagraph (2) reading as follows:

§ 75.43–90 Vessels contracted for prior to May 26, 1965.

(a) * * *

(2) Any vessel attending offshore petroleum operations is not permitted to carry water lights which produce an open flame when used or actuated, and such lights shall be removed from the vessel.

(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. 153, 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, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp. 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 I—CARGO AND MISCELLANEOUS VESSELS

PART 94—LIFESAVING EQUIPMENT

Subpart 94.43—Ring Life Buoys and Water Lights

3. Section 94.43–5(b) is amended to read as follows:

§ 94.43–5 General.

* * * * *

(b) All water lights shall be of an approved type, constructed in accordance with Subparts 160.012 or 161.001 of Subchapter Q (Specifications) of this chapter: *Provided*, That water lights which produce an open flame are not permitted and shall be removed from vessels attending offshore petroleum operations.

* * * * *

4. Section 94.43–90(a) is amended by adding a subparagraph (2) reading as follows:

§ 94.43–90 Vessels contracted for prior to May 26, 1965.

(a) * * *

(2) Any vessel attending offshore petroleum operations is not permitted to carry water lights which produce an open flame when used or actuated, and such lights shall be removed from the vessel.

(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

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U.S.C. 198; E.O. 11239, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp. 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. 8357)

SUBCHAPTER T—SMALL PASSENGER VESSELS (UNDER 100 GROSS TONS)

PART 180—LIFESAVING EQUIPMENT

Subpart 180.30—Ring Life Buoys and Water Lights

5. Section 180.30-1 is amended by adding a paragraph (b) reading as follows:

§ 180.30-1 General.

* * * * *

(b) Any vessel attending offshore petroleum operations is not permitted to carry water lights which produce an open flame when used or actuated, and such lights shall be removed from the vessel.

(R.S. 4405, as mended, 4462, as amended, sec. 3, 70 Stat. 152; 46 U.S.C. 375, 416, 390b. Interpret or apply R.S. 4488, as amended; 46 U.S.C. 481. Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-20, June 18, 1956, 21 F.R. 4894; 167-38, Oct. 26, 1959, 24 F.R. 8857).

Dated: January 9, 1967.

[SEAL] W. J. SMITH,
Admiral U.S. Coast Guard,
Commandant.

[F.R. Doc. 67-391; Filed, Jan. 12, 1967; 8:46 a.m.]

FIRST OFFICER

Title 46—SHIPPING

Chapter I—Coast Guard, Department of Transportation

[CGFR 67-91]

NAVIGATION LIGHTS AND SHAPES FOR MOTORBOATS AND VESSELS

Miscellaneous Amendments

1. Pursuant to the notice of proposed rule making published in the FEDERAL REGISTER of January 24, 1967 (32 F.R. 795-807), and the Merchant Marine Council Public Hearing Agenda dated March 20, 1967 (CG-249), the Merchant Marine Council held a public hearing on March 20, 1967, for the purpose of receiving comments, views, and data. The proposals considered were identified as Items PH 1-67 to PH 13-67, inclusive. Item PH 4-67 (CG-249, pages 81 to 88, inclusive) contained proposals regarding navigation lights and shapes for motorboats, uninspected vessels, and inspected vessels. Item PH 4a-67 contained proposals regarding navigation lights and shapes for motorboats and uninspected vessels. Item PH 4b-67 contained proposals regarding navigation lights and shapes for all classes of inspected vessels. These proposals, as revised, are adopted and set forth in this document. The necessary changes to the Rules of the Road for "Inland Waters" and "Western Rivers" are in a separate FEDERAL REGISTER Document, CGFR 67-92.

2. Interested persons have been afforded an opportunity to participate in the consideration of these proposals and certain changes were made in the proposals in Items PH 4a-67 and PH 4b-67 to clarify the requirements. The Merchant Marine Council's actions with respect to comments received are approved.

3. The new regulations added to 46 CFR Parts 25, 113, and 184 are applicable to new and existing vessels. The standards established should aid vessel operators to select an appropriate electric lamp for their navigation lights, as well as establish criteria which will enable a person to determine the minimum value of intensity for any given distance of visibility required to be met.

4. By virtue of the authority vested in me as Commandant, U.S. Coast Guard, by section 632 of Title 14, United States Code, and Department of Transportation Order 1100.1, dated March 31, 1967 (49 CFR 1.4(a)(2), 32 F.R. 5606), to promulgate regulations in accordance with the laws cited with the regulations below, the following regulations are prescribed and shall be effective on and after the 91st day after the date of publication of this document in the FEDERAL REGISTER; however, the regulations in this document may be complied with prior to that date.

SUBCHAPTER C—UNINSPECTED VESSELS

PART 25—REQUIREMENTS

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

AUTHORITY: The provisions of this Part 25 issued under R.S. 4405, as amended, 4462, as amended, sec. 17, 54 Stat. 166, as amended, sec. 6(b)(1), 80 Stat. 938; 46 U.S.C. 375, 416, 526p, 49 U.S.C. 1655(b); Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606.

Subpart 25.05—Navigation Lights and Shapes, Whistles, Foghorns, Fog Bells, and Gongs

6. Subpart 25.05 is amended by inserting after § 25.05-10 a new § 25.05-15 reading as follows:

§ 25.05-15 Light intensity standards.

(a) Navigation lights shall be of sufficient intensity so that the candlepower outside the lens is not less than that amount corresponding to the required distance of visibility as specified in Table 25.05-15(a).

TABLE 25.05-15(a)

Distance of visibility, in nautical miles	Candlepower
1	1.0
2	5.5
3	17.6
5	100.0

NOTE: In Table 25.05-15(a) the standards are based upon a transmissivity factor of 70 percent per sea-mile and a practical threshold of vision of ¾ sea-mile candles.

(b) As an aid in complying with the provisions of this section, the standard double contact bayonet candelabra base lamps listed in Table 25.05-15(b) are recommended for motorboats having 6- to 32-volt electrical systems.

TABLE 25.05-15(b)

Distance of visibility, in nautical miles	Color	Lamp number for certain voltage systems—					
		With fresnel lens			Without fresnel lens		
		6	12	32	6	12	32
1	Red	82	90	1,226	1,130	1,142	1,230
1	Green	88	94	1,228			
2	White	64	68	1,224	82	90	1,226
3	White	82	90	1,226	1,130	1,142	1,230

NOTE: In Table 25.05-15(b) the recommended lamp numbers for lights with fresnel lenses assume a lamp-to-light ratio of 1 to 4. The following filter efficiencies are assumed: Red—8 percent; green—2 percent.

(c) As an aid in complying with the provisions of this section, the incandescent lamps listed in Table 25.05-15(c) are recommended for vessels having 115-volt electrical systems.

TABLE 25.05-15(c)

Distance of visibility, in nautical miles	Color	Wattage—	
		With fresnel lens	Without fresnel lens
1	Red		25
1	Green	25	50
2	White		15
2	Amber		25
2	Red	40	100
2	Green	75	200
2	White		25
3	Amber	25	75
3	White	40	100
5			

NOTE: In Table 25.05-15(c) the following filter efficiencies are assumed: Amber—30 percent; red—8 percent; green—2 percent.

SUBCHAPTER J—ELECTRICAL ENGINEERING

PART 113—COMMUNICATION AND ALARM SYSTEMS AND EQUIPMENT

Subpart 113.55—Navigation Lights

7. Subpart 113.55 is amended by inserting after § 113.55-25 a new § 113.55-30 reading as follows:

§ 113.55-30 Light intensity standards.

(a) Navigation lights shall be of sufficient intensity so that the candlepower outside the lens is not less than that amount corresponding to the required distance of visibility as specified in Table 113.55-30(a).

TABLE 113.55-30(a)

Distance of visibility, in nautical miles	Candlepower
1	1.0
2	5.5
3	17.6
5	100.0

NOTE: In Table 113.55-30(a) the standards are based upon a transmissivity factor of 70 percent per sea-mile and a practical threshold of vision of ¾ sea-mile candles.

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(b) The standard incandescent lamps listed in Table 113.55-30(b) are recommended for vessels having 115-volt electrical systems.

TABLE 113.55-30(b)

Distance of visibility, in nautical miles	Color	Wattage—	
		With fresnel lens	Without fresnel lens
1	Red	25	25
1	Green		50
1	White		15
2	Amber		25
2	Red	40	100
2	Green	75	200
2	White		25
3	Amber	25	75
3	White	40	100
5			

NOTE: In Table 113.55-30(b) the recommended lamp wattages for lights with fresnel lenses assume a lamp-to-light ratio of 1 to 4. The following filter efficiencies are assumed: Amber—30 percent; red—5 percent; green—2 percent. For this table it is also assumed the lamps have the following intensities: 15 w.—11 cp.; 25 w.—21 cp.; 40 w.—37 cp.; 50 w.—50 cp.; 75 w.—90 cp.; 100 w.—130 cp.; 200 w.—290 cp. The computations are based upon Allard's Law, using the formula:

$$I_o = \frac{E_t D^2}{T^D}$$

Where:
I_o = Intensity of the source in candlepower.
E_t = The practical threshold of vision, ¾ sea-mile candles.
D = Distance light must be seen in nautical miles.
T = 0.7, the transmissivity factor, or fraction of light passing through each nautical mile of atmosphere on a "dark night with a clear atmosphere."

(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, sec. 6(b)(1), 80 Stat. 938; 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, 49 U.S.C. 1655(b); E.O. 11239, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp. Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606)

SUBCHAPTER T—SMALL PASSENGER VESSELS (UNDER 100 GROSS TONS)

PART 184—VESSEL CONTROL AND MISCELLANEOUS SYSTEMS AND EQUIPMENT

8. The authority note for Part 184 is amended to read as follows:

AUTHORITY: The provisions of this Part 184 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, 4426, as amended, 4453, as amended, sec. 6(b)(1), 80 Stat. 938; 46 U.S.C. 391, 392, 404, 435, 49 U.S.C. 1655(b); Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606; unless otherwise noted.

Subpart 184.15—Navigation Lights and Shapes, Whistles, Fog Horns, and Fog Bells

9. Subpart 184.15 is amended by adding after § 184.15-1 a new § 184.15-5 reading as follows:

§ 184.15-5 Light intensity standards.

(a) Navigation lights shall be of sufficient intensity so that the candlepower outside the lens is not less than that amount corresponding to the required distance of visibility as specified in Table 184.15-5(a).

TABLE 184.15-5(a)

Distance of visibility, in nautical miles	Candlepower
1	1.6
2	5.5
3	17.6
5	100.0

NOTE: In Table 184.15-5(a) the standards are based upon a transmissivity factor of 70 percent per sea-mile and a practical threshold of vision of ¾ sea-mile candles.

(b) As an aid in complying with the provisions of this section, the following standard double contact bayonet candelabra base lamps listed in Table 184.15-5(b) are recommended for vessels less than 65 feet in length having 6- to 32-volt electrical systems.

TABLE 184.15-5(b)

Distance of visibility, in nautical miles	Color	Lamp number for certain voltage systems—					
		With fresnel lens			Without fresnel lens		
		6	12	32	6	12	32
1	Red	82	90	1,226	1,130	1,142	1,230
1	Green	88	94	1,228			
1	White	64	68	1,224	82	90	1,226
2	White	82	90	1,226	1,130	1,142	1,230
3	White						

NOTE: In Table 184.15-5(b) recommended lamp numbers for lights with fresnel lenses assume a lamp-to-light ratio of 1 to 4. The following filter efficiencies are assumed: Red—5 percent; green—2 percent.

(c) As an aid in complying with the provisions of this section, the incandescent lamps listed in Table 184.15-5(c) are recommended for vessels having 115-volt electrical systems.

TABLE 184.15-5(c)

Distance of visibility, in nautical miles	Color	Wattage—	
		With fresnel lens	Without fresnel lens
1	Red	25	25
1	Green		50
1	White		15
2	Amber		25
2	Red	40	100
2	Green	75	200
2	White		25
3	Amber	25	75
3	White	40	100
5			

NOTE: In Table 184.15-5(c) the recommended lamp wattages for lights with fresnel lenses assume a lamp-to-light ratio of 1 to 4. The following filter efficiencies are assumed: Amber—30 percent; red—5 percent; green—2 percent. For this table it is also assumed the lamps have the following intensities: 15 w.—11 cp.; 25 w.—21 cp.; 40 w.—37 cp.; 50 w.—50 cp.; 75 w.—90 cp.; 100 w.—130 cp.; 200 w.—290 cp. The computations are based upon Allard's Law, using this formula:

$$I_o = \frac{E_t D^2}{T^D}$$

Where:
I_o = Intensity of the source in candlepower.
E_t = The practical threshold of vision, ¾ sea-mile candles.
D = Distance light must be seen in nautical miles.
T = 0.7, the transmissivity factor, or fraction of light passing through each nautical mile of atmosphere on a "dark night with a clear atmosphere."

Subpart 184.40—Work Vests

§ 184.40-1 [Amended]

10. Section 184.40-1 *Approved unicellular plastic foam work vests* is amended by deleting from the authority note at the end thereof the phrase "Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-38, October 26, 1959, 24 F.R. 8857".

Dated: December 19, 1967.

[SEAL]

W. J. SMITH,
Admiral, U.S. Coast Guard,
Commandant.

[F.R. Doc. 67-14920; Filed, Dec. 26, 1967; 8:45 a.m.]

[COFR 67-88]

ELECTRICAL ENGINEERING REGULATIONS

Miscellaneous Amendments

1. Pursuant to the notice of proposed rule making published in the FEDERAL REGISTER of January 24, 1967 (32 F.R. 795-807), and the Merchant Marine Council Public Hearing Agenda dated March 20, 1967 (CG-249), the Merchant Marine Council held a public hearing on March 20, 1967, for the purpose of receiving comments, views, and data. The proposals considered were identified as Items PH 1-67 to PH 13-67, inclusive. Item PH 10-67 (CG-249, pages 170 to 186, inclusive) contained proposals regarding electrical engineering regulations. These proposals, as revised, are adopted and set forth in this document.

2. Interested persons have been afforded an opportunity to participate in the consideration of these proposals and certain changes were made in the proposals in Item PH 10-67. The changes in 46 CFR 111.35-15 (b)(1) and (c)(1) regarding disconnect means for switchboards clarify requirements. The change in 46 CFR 111.55-20(b)(1) regarding circuit breakers provides greater latitude in application of the requirements. The proposals in Item PH 10g-67 regarding operation of general alarm systems (46 CFR 113.25-5) are included in another FEDERAL REGISTER Document CGFR 67-87 containing amendments regarding fire protection on passenger vessels. The Merchant Marine Council's actions with respect to comments received and proposals in Item PH 10-67 are approved.

3. As stated in 46 CFR 110.05-3, the amendments to the electrical engineering regulations in this document are not retroactive in effect. The requirements in these amendments apply to new vessels contracted for on or after the effective date of these changes and to new installations or major replacements on existing vessels made on or after the effective date of these changes.

4. By virtue of the authority vested in me as Commandant, U.S. Coast Guard, by section 632 of Title 14, United States Code, and Department of Transportation Order 1100.1, dated March 31, 1967 (49 CFR 1.4(a)(2), 32 F.R. 5606), to promulgate regulations in accordance with the laws cited with the regulations below, the following amendments are prescribed and shall be effective on and after the 31st day after the date of publication of this document in the FEDERAL REGISTER; however, the regulations in this document may be complied with in lieu of existing requirements prior to that date.

SUBCHAPTER D—TANK VESSELS

PART 32—SPECIAL EQUIPMENT, MACHINERY, AND HULL REQUIREMENTS

5. The authority note 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, 66 Stat. 675, sec. 6(b)(1), 80 Stat. 938; 50 U.S.C. 198, 49 U.S.C. 1655(b); E.O. 11239, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp. Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606.

Subpart 32.25—General Alarm Systems

6. Section 32.25-1(b) is amended to read as follows:

§ 32.25-1 Alarm bells for tankships constructed on or after September 15, 1943—T/ALL.

* * * * *

(b) Four manually operated contact makers shall be provided in accessible locations for operating the general alarm system. The contact makers shall be provided at the following locations:

(1) Wheelhouse;

(2) Space where feeder distribution panel is located;

(3) Deck officers' quarters furthest from the engineroom; and

(4) Engineroom.

SUBCHAPTER J—ELECTRICAL ENGINEERING

PART 111—ELECTRICAL SYSTEM; GENERAL REQUIREMENTS

Subpart 111.05—General Requirements

7. Section 111.05-25(b) is amended by changing Table 111.05-25(b) to read as follows:

§ 111.05-25 Nature of electrical supply.

* * * * *

(b) * * *

TABLE 111.05-25(b)—STANDARD VOLTAGES

Equipment	Direct current (volts)	Alternating current (volts)
Lighting	115	115 and 120.
Power	115 and 230	115, 120, 208, 220, and 440.
Generators	120 and 240	120, 125, 216, 230, and 450.
Propulsion	1,000 maximum	7,500 maximum.

Subpart 111.35—Switchboards and Propulsion Controls

8. Section 111.35-15 is amended by changing subparagraphs (b)(1) and (c)(1) to read as follows:

§ 111.35-15 Ship's service generator and distribution switchboards.

* * * * *

(b) * * *

(1) An unfused generator switch or links which will completely disconnect the gencrator and its circuit breaker from the bus. This disconnecting means need not be provided if the generator circuit breaker is of the drawout type which either disconnects all conductors, or, in the case of dual voltage systems, disconnects all unground conductors or disconnecting links and is supplemented by a switch in the generator neutral conductor.

* * * * *

(c) * * *

(1) An unfused generator switch or links which will completely disconnect the generator and its circuit breaker from the bus. This disconnecting means need not be provided if the generator circuit breaker is of the drawout type which either disconnects all conductors, or, in the case of dual voltage systems, disconnects all ungrounded conductors and is supplemented by a switch or disconnecting links in the generator neutral conductor.

Subpart 111.40—Distribution Panelboards (Switchboard and Panelboard Types)

§ 111.40-1 [Amended]

9. Section 111.40-1. *General requirements* is amended by changing in paragraph (g) in the first sentence the phrase from "60 overcurrent devices" to "42 overcurrent devices" and in the second sentence the phrase from "50 amperes" to "30 amperes."

Subpart 111.55—Overcurrent Protection

10. Section 111.55-1 is amended by revising paragraphs (d), (h)(1), and (i)(1) to read as follows:

§ 111.55-1 Installation of overcurrent devices.

* * * * *

(d) *Ungrounded conductors.* An overcurrent device (fuse or overcurrent trip unit of a circuit breaker) shall be placed in each ungrounded conductor. A branch switch or circuit breaker shall open all conductors of the circuit, including grounded conductors. Individual single-pole circuit breakers with operating handles yoked together may be used for the protection of each conductor of ungrounded 2-wire circuits.

* * * * *

(h) *Three-wire direct-current generators*—(1) *Circuit-breaker poles.* Separate circuit-breaker poles should be provided for the positive, negative and also for the equalizer leads unless protection is provided by the main poles. When equalizer poles are provided for the three-wire generators, the overload trips should be of the "Algebraic" type. If a neutral pole is provided in the generator circuit breaker, no overload trip element shall be provided for the neutral pole. A neutral overcurrent relay and alarm system should be provided and set to function at a current value equal to the neutral rating.

* * * * *

(i) *Three-wire single-phase and four-wire three-phase generators*—(1) *Circuit-breaker poles.* Circuit-breaker poles shall be provided for each generator lead, except the neutral of dual voltage systems.

11. Section 111.55-20 is amended to read as follows:

§ 111.55-20 Interrupting rating of fuses and circuit breakers.

(a) *General.* All generator circuit breakers and all circuit breakers and fuses used in vital circuits shall have, and other circuit breakers and fuses shall generally have, sufficient interrupting ca-

pacity to interrupt the maximum short circuit current available at the point of application of the circuit breaker or fuse in the electrical system.

(b) *Circuit breakers and fuses in cascade systems.* For circuits not vital to the propulsion, control, or safety of the vessel, cascading of circuit breakers and fuses is permitted. That is, circuit breakers and fuses may be installed at a point in the electrical distribution system where the short-circuit current available exceeds the interrupting capacity of the circuit breaker or fuse. Any such circuit breaker or fuse shall be protected by a backup circuit breaker or current limiting fuse. This backup device shall have an interrupting rating not less than the maximum short-circuit current available at the point of application. Generator circuit breakers shall not be used as backup circuit breakers.

(1) *Circuit breakers.* Unless otherwise approved by the Commandant, a circuit breaker used as a backup device shall have an instantaneous trip setting of not more than 80 percent of the interrupting rating of the circuit breakers or fuses protected. Fused circuit breakers with fuses connected to the load side may be used for backup service provided the fuses and circuit breakers are of coordinated design so that arc restrike in the circuit breaker cannot occur when a fuse blows.

(2) *Current limiting fuses.* If a fuse is used as a backup device, its selection and application shall be governed by the following design parameters:

(i) The maximum fuse rating shall be selected which will give adequate protection, on fault currents, to the device it backs up. In no case shall the device being backed up be called upon to interrupt fault currents in excess of 90 percent of its interrupting rating.

(ii) Fault currents cleared by the device backed up shall not cause damage or any change in the time-current characteristics of the current limiting fuse.

(iii) Fuses should be so applied that single phase operation of any three-phase connected motor will be precluded.

(c) *Calculation of short-circuit currents.* Unless precise calculations are submitted for review, the maximum short-circuit current of a direct-current system will be assumed to be equal to ten times the combined normal rated current of all generators (including a spare) plus six times the combined normal rated current of all motors which may be in operation simultaneously. On alternating-current systems, the maximum short-circuit current will be assumed to be equal to ten times the combined normal rated current of all generators (including a spare) plus three times the combined normal rated current of all motors which may be in operation simultaneously.

(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. 1304, as amended, secs. 1, 2, 49 Stat. 1544, 1546, 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, sec. 6(b)(1), 80 Stat. 938; 46 U.S.C. 301, 362, 391, 391a, 392, 399, 404, 405, 411, 435, 481, 489, 366, 395, 363, 369, 367, 526p, 1333, 390b, 50 U.S.C. 198, 49 U.S.C. 1655(b); E.O. 11239, July 31, 1965, 30 F.R. 9971, 3 CFR, 1965 Supp. Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606)

PART 112—EMERGENCY LIGHTING AND POWER SYSTEM

12. Section 112.05-5(a) 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	Storage battery or A generator driven by a suitable prime-mover with an independent fuel supply and a temporary source of emergency power consisting of a storage battery of sufficient capacity to supply the temporary emergency source loads for not less than ½ hour.	36 hours. 36 hours (generator) and ½ hour (battery).
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 65 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 smaller.
Cargo and miscellaneous self-propelled vessels and tank ships; barges with sleeping accommodations for more than six 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 112.55-6.
[3] Applicable to barges contracted for on or after Nov. 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] Battery-operated 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.

Subpart 112.50—Emergency Diesel-Engine-Driven Generator Sets

13. Section 112.50-1 is amended to read as follows:

§ 112.50-1 General requirements.

(a) The diesel engine of the generator set shall be complete with all accessories necessary for operation and protection of the engine, shall have a self-contained cooling system of size to assure continuous engine operation using 100° F. air, and the fuel used shall have a flashpoint of not less than 110° F. The room in which the set is located shall be provided with suitable intake and exhaust ducts to supply adequate cooling air. The diesel engine as installed shall be without starting aid except that a thermostatically controlled electric water jacket heater, connected to the final emergency bus, may be employed. The diesel engine as installed shall be capable of carrying its full rated load within 20 seconds after cranking is initiated with the intake air, room ambient, and starting equipment all at a temperature of 32° F. The diesel engine shall be started by either hydraulic or electric means. The generator sets shall lubricate and operate satisfactorily when permanently inclined to an angle of 22½° athwartship and 10° fore and aft, and shall be arranged so that it will not spill oil under a vessel roll of 30° each side of the vertical. Units shall shut down automatically upon loss of lubricating oil pressure, dangerous overspeeding, and release of carbon dioxide in the emergency generator room. An audible alarm device shall be provided to sound on low oil pressure and high cooling water temperature.

(b) Hydraulic starting means shall comply with the following conditions:

(1) The hydraulic cranking device shall be a self-contained system which will provide the required cranking forces and engine starting RPM as recommended by engine manufacturer.

(2) Electrically operated means shall automatically provide and maintain the stored hydraulic pressure within the predetermined pressure limits.

(3) The means of automatically maintaining the hydraulic system within the predetermined pressure limits shall be energized from the final emergency bus.

(4) Means shall be provided to manually recharge the hydraulic system.

(5) Charging of the hydraulic cranking system shall not create an absence of hydraulic power for engine starting at any time.

(6) The capacity of the hydraulic cranking system shall provide not less than six cranking cycles. Each cranking cycle shall provide the necessary number

C 6259

of revolutions at the required RPM to permit the diesel engine to meet the requirements of carrying its full rated load within 20 seconds after cranking is initiated with intake air, room ambient temperature and hydraulic cranking system at 32° F.

(7) Capacity of the hydraulic cranking system sufficient for three starts under conditions of subparagraph (6) of this paragraph 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.

(c) Electrical starting means shall comply with the following conditions:

(1) The starting battery shall be of sufficient capacity to provide not less than six consecutive cranking cycles. Each cycle shall consist of not less than one-half minute of battery rest.

(2) At the end of the sixth cranking cycle the battery voltage while cranking the engine, shall be not less than 50 percent of nominal battery voltage.

(3) The cranking cycles shall be with the intake air, room ambient, and starting battery at a temperature of not more than 32° F.

(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, sec. 6(b)(1), 80 Stat. 938; 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, 49 U.S.C. 1655(b); E.O. 11239, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp. Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606)

Dated: December 19, 1967.

W. J. SMITH,
Admiral, U.S. Coast Guard,
Commandant.

[F.R. Doc. 67-14919; Filed, Dec. 26, 1967; 8:45 a.m.]

SUBCHAPTER N—DANGEROUS CARGOES

[CGFR 67-95]

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

Subpart 146.25—Detailed Regulations Governing Poisonous Articles

RESTRICTIONS AGAINST LOADING AND TRANSPORTING CLASS B POISONOUS LIQUIDS OR SOLIDS WITH FOODSTUFFS

1. There have been several recent instances of food poisoning attributed to the consumption of food which had become contaminated by a poisonous insecticide or pesticide during the course of transportation. The poisons involved were liquids or solids, of the types defined and described as Class B in § 146.25-10, Coast Guard Dangerous Cargo Regulations (46 CFR 146-149). These incidents have caused the death of several persons. While none of the incidents occurred in the United States, there has been, within the past year, a number of container leakages, adverse handling experiences, and other accidents involving shipments of poisonous liquids or solids, Class B. Therefore, it is possible for the conditions which caused the deaths in other countries to arise in this country.

2. Investigations of the leakages and other accidents in the United States have not yet developed all of the information which would indicate conclusively the need for changes in the specification packaging requirements for poisons. However, a review of all of the incidents concerned clearly shows that there is good cause for the restricting of mixed shipments of poisonous liquids or solids, Class B, and foodstuffs, feeds, and other materials intended for consumption by humans or animals which are not packaged in airtight nonpermeable containers to minimize the possibility of food poisoning that could be caused by inadvertent contamination during transportation. Also, because of the multiple uses of transportation equipment, it is considered necessary to place a restriction on the reuse of transportation equipment which has been contaminated by the leakage of poisonous liquids or solids, Class B, until the contamination has been removed, to preclude injury to transportation personnel and contamination of subsequent shipments.

3. General rules pertaining to restriction for stowage of poisons and foodstuffs are now contained in the Coast Guard Dangerous Cargo Regulations (46 CFR 146.25-45(i), 146.25-50(a), and 146.25-200). However, in light of these recent casualties, it is considered necessary that specific rules be specified for the stowage of poisons and foodstuffs. The existing regulation 46 CFR 146.25-45(i) requires that poisons be stowed "away from" foodstuffs not packed in hermetically sealed containers. "Away from" is interpreted to mean that the stowage may be in the same hold or compartment but must be separated in such a way by distance and other cargo so that in event of leakage or damage to containers the poisons will not contaminate the foodstuffs.

4. For the purpose of this Order, the following requirements shall apply to stowage of poisonous liquids and solids, Class B, and foodstuffs:

(a) If the foodstuffs are in airtight nonpermeable containers, poisons may be stowed "away from" the foodstuffs.

(b) If the foodstuffs are in bulk or are packed in bags or wooden barrels, the poisons shall be stowed in a hold or compartment that is separated from the foodstuffs by a tight bulkhead.

(c) Poisons shall not be stowed on weather deck hatches over a stowage of foodstuffs in bulk or packed in bags or wooden barrels.

5. The provisions of this Order shall also apply to the detailed requirements in Table H in 46 CFR 146.25-200; however, the necessary changes to these requirements are under study and will be included with the changes required to be published before July 1, 1968. Additionally, these regulation changes will be in agreement with those of the Department of Transportation.

6. The regulation in 46 CFR 146.25-50(a) regarding care following leakage or sifting of poisonous articles shall apply to all poisonous liquids or solids, Class B.

7. As a situation exists which demands immediate adoption of these rules in the interests of public safety, it is found that notice and public procedure hereon are impractical and good cause exists for making this Order effective under the emergency procedure specified in 46 U.S.C. 170, as amended (R.S. 4472). In consideration of the foregoing, these amendments to the Coast Guard Dangerous Cargo Regulations (46 CFR Parts 146-149) are effective January 1, 1968; however, the regulations in this document may be complied with in lieu of existing requirements prior to that date.

8. By virtue of the authority vested in me as Commandant, U.S. Coast Guard, by section 632 of Title 14, United States Code, and Department of Transportation Order 1100.1, dated March 31, 1967 (49 CFR 1.4(a)(2), 32 F.R. 5606), to promulgate regulations in accordance with the laws cited with the regulations below, the following amendments are prescribed:

9. The authority note 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, sec. 6(b)(1), 80 Stat. 938; 46 U.S.C. 375, 416, 170 50 U.S.C. 198, 49 U.S.C. 1655(b); E.O. 11239, July 31, 1965, 30 F.R. 9671; Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606; except as otherwise noted.

10. Section 146.25-45 is amended by revising the headnote and paragraph (i), and by adding a new paragraph (j), which read as follows:

§ 146.25-45 Stowage of poisonous articles with explosives and other dangerous articles and away from living quarters and foodstuffs.

* * * * *

(i) Containers of poisonous articles shall be stowed well away from living quarters and ventilation ducts serving living quarters.

(j) Containers of poisonous articles shall be stowed well away from foodstuffs. The phrase "away from" means that the stowage may be in the same hold or compartment but must be separated in such a way by distance and other cargo so that in event of leakage or damage to containers the poisons will not contaminate the foodstuffs. The following additional requirements shall apply to the stowage of poisonous liquids and solids, Class B, and foodstuffs:

(1) If the foodstuffs are in airtight nonpermeable containers, these poisons

may be stowed "away from" the foodstuffs.

(2) If the foodstuffs are in bulk or are packed in bags or wooden barrels, these poisons shall be stowed in a hold or compartment that is separated from the foodstuffs by a tight bulkhead.

(3) These poisons shall not be stowed on weather deck hatches over a stowage of foodstuffs in bulk or packed in bags or wooden barrels.

11. Section 146.25-50(a) is amended by changing the phrase from "arsenic or arsenical compounds, calcium cyanide, potassium cyanide, or sodium cyanide" to "poisonous liquids and solids, Class B," so that it reads as follows:

§ 146.25-50 Care following leakage or sifting of poisonous articles.

(a) Compartments or holds in which have been stowed packages containing poisonous liquids and solids, Class B, or radioactive ores of low activity shall, in the event any leakage or sifting from the containers has occurred, be thoroughly cleaned after the cargo is unloaded and before the hold is used for stowage of other cargo.

* * * * *

Dated: December 13, 1967.

W. J. SMITH,
Admiral, U.S. Coast Guard,
Commandant.

[F.R. Doc. 67-14986; Filed, Dec. 26, 1967; 8:48 a.m.]

[Docket No. 13]

PART 255—INITIAL FEDERAL MOTOR VEHICLE SAFETY STANDARDS

Appendix A—Interpretations

CONTROLS AND REARVIEW MIRRORS

In response to inquiries for interpretation of certain of the initial Federal Motor Vehicle Safety Standards and regulations published in the FEDERAL REGISTER February 3, 1967 (32 F.R. 2408), under the authority of sections 103 and 119 of the National Traffic and Motor Vehicle Safety Act of 1966 (15 U.S.C. 1392, 1407) and the delegations of authority of October 20, 1966 (31 F.R. 13553), and January 24, 1967 (32 F.R. 1035), the following interpretations have been formulated and adopted by the National Traffic Safety Agency for the guidance of the public and are hereby published in the FEDERAL REGISTER in accordance with 5 U.S.C. 552(b).

Issued in Washington, D.C., on March 29, 1967.

LOWELL K. BRIDWELL,
Acting Under Secretary of Commerce for Transportation.

MOTOR VEHICLE SAFETY STANDARD NO. 101

CONTROL LOCATION AND IDENTIFICATION—PASSENGER CARS

The requirement of paragraph S3.2 that specified controls shall be identified to permit recognition may be met with words or symbols and need only be demonstrated under daylight lighting conditions.

MOTOR VEHICLE SAFETY STANDARD NO. 111

REARVIEW MIRRORS—PASSENGER CARS AND MULTIPURPOSE PASSENGER VEHICLES

(1) When a supplemental mirror is furnished in addition to the inside rearview mirror and the driver's side outside rearview mirror, the supplemental mirror need not be adjustable from the driver's seat.

(2) The location of the driver's eye reference point may be that established in Motor Vehicle Safety Standard No. 104, or it may be a nominal location appropriate for any 95th percentile male driver.

(3) The horizontal angle is measured from the projected eye point, rather than the plane of the mirror.

[F.R. Doc. 67-3642; Filed, Apr. 3, 1967; 8:47 a.m.]

Title 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

SUBCHAPTER Q—SPECIFICATIONS

[CGFR 66-73]

PART 160—LIFESAVING EQUIPMENT

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

REVISION OF MANUFACTURERS' REQUIREMENTS AND WITHDRAWAL OF CERTAIN CERTIFICATES OF APPROVAL

The purpose of the amendments in this document is to revise and bring up to date the specification regulations governing manufacturers of unicellular plastic foam life preservers. Pursuant to the notice of proposed rule making published in the FEDERAL REGISTER of February 10, 1966 (31 F.R. 2264), and the Merchant Marine Council Public Hearing Agenda dated March 21, 1966 (CG-240), the Merchant Marine Council held a Public Hearing on March 21, 1966, for the purpose of receiving comments, views, and data. The proposed changes considered included specification regulations for unicellular plastic foam life preservers, which were identified as Item VIII (CG-240, pages 113 to 125, inclusive). As revised by the Merchant Marine Council, this proposal is approved and the specification regulations are set forth in this document. The actions of the Merchant Marine Council with respect to the comments received regarding unicellular plastic foam life preservers are approved.

The specification designated 46 CFR Subpart 160.055, consisting of §§ 160.055-1 to 160.055-9, inclusive, is revised and is reprinted below in this document in its entirety. The Type I Standard, Models 61 and 65, unicellular plastic foam life preservers was discontinued. The design for the vinyl dip coated unicellular plastic foam life preservers is revised. A new model unicellular plastic foam life preserver is developed which utilizes a cloth covering. These two new standard designs are identified as Type IA Standard, Models 63 and 66, for the vinyl dip coated plastic foam life preservers, and Type IB Standard, Models 63 and 67, for the cloth covered plastic foam life preservers. The new standard designs permit cold weather donning, with one motion accomplishing the securing and adjusting. Further the new designs include the stowage characteristics desired by operators of ferry and excursion steamers. The preliminary draft of this specification was given to those persons and companies who had expressed an interest in this subject. They were requested to check the proposed specification from a production standpoint and to comment thereon.

In this revision changes in 46 CFR 160.055-1 to 160.055-5, inclusive, were made. Briefly, these changes include revising and bringing up to date referenced specifications, standards, and plans; a revised design providing for the splitting of the front of the bib into two legs, and a squaring of the outer border around the neck hole from the previous circular outer edge; and a revised body strap requirement, which limits the distance of separation of the bib legs while donning but still providing full reversibility. The marking provisions in 46 CFR 160.055-8 were modified to show the various standard types of these life preservers, as well as to require the marking to show that it is "Approved for use on all vessels and motorboats."

Withdrawal of certificates of approval. In January 1966, the Coast Guard's attention was directed to a problem of donning certain vinyl dip coated plastic foam life preservers which lost a considerable amount of flexibility after exposure to temperatures below 28° F. This loss in flexibility could prevent a person from stretching the head opening wide enough to don these life preservers. Upon notification, the manufacturers accepted suspension of the outstanding certificates of approval bearing Approval Nos. 160.055/1/0 through 160.055/29/0. The Coast Guard's actions suspending these approvals are reaffirmed and all these certificates of approval are terminated.

By a Notice to Mariners, instructions were directed to all vessels on routes where the air temperatures would be below 23° F. that have on board unicellular plastic foam life preservers bearing Approval Nos. 160.055/1/0 through 160.055/29/0, urging that such approved life preservers should be checked for donning at these low temperatures. It was recommended that such life preservers be stowed inside the vessel or transferred to other vessels on routes with warmer air temperatures.

Because certain vinyl dip coated unicellular plastic foam life preservers lost their flexibility at temperatures below 23° F. so that it is not possible to stretch the head opening wide enough to don such life preservers, it has been deemed necessary that such life preservers bearing Approval Nos. 160.055/1/0, 160.055/2/0, 160.055/5/0, 160.055/6/0, 160.055/7/0, 160.055/8/0, 160.055/11/1, 160.055/12/1, 160.055/20/1, 160.055/21/1, 160.055/22/0, 160.055/28/0, and 160.055/29/0 shall be removed from all vessels, including motorboats, and the Coast Guard approval markings thereon shall be obliterated so that such life preservers may not be carried as a lifesaving appliance meeting the requirements in any inspection law or the Motorboat Act of 1940, as amended, and implementing regulations in 46 CFR Chapter I. It is urged that such life preservers be replaced as soon as possible. Effective November 1, 1967, such life preservers shall not be carried on board any vessel or motorboat as approved equipment. The certificates of approval issued to manufacturers of such life preservers, suspended by letters dated January 25, 1966, are also withdrawn. Any life preservers bearing such approval numbers and in good and serviceable condition may be used on board vessels and motorboats only until October 31, 1967. Any person aggrieved by this withdrawal of approval and removal of such life preservers from use as approved equipment on vessels and motorboats may appeal to the Commandant (CMC), U.S. Coast Guard, Washington, D.C. 20220, in writing within 30 days after publication of this document in the FEDERAL REGISTER. Such an appeal shall set forth the reasons why this decision or action should be set aside or revised.

Revised specification. 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), to promulgate regulations in accordance with the laws cited with the regulations below, the following revision

of §§ 160.055–1 to 160.055–9, inclusive, is prescribed:

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

Sec.

AUTHORITY: The provisions of this Subpart 160.055 interpret or apply R.S. 4417a, as amended, 4426, as amended, 4488, as amended, 4419, 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. 317, as amended, sec. 8, 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, July 31, 1965, 30 F.R. 9671. 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 55–28, July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. 8857.

§ 160.055–1 Applicable specifications, standards, and plans.

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

(1) Military specifications:

MIL–W–530—Webbing, Textile, Cotton, General Purpose, Natural or in Colors.
MIL–T–3530—Treatment, Mildew-Resistant for Thread and Twine.
MIL–W–17337—Webbing, Woven, Nylon.
MIL–C–43006—Cloth, Laminated, Vinyl-Nylon, High Strength, Flexible.

(2) Federal specifications:

CCC–A–700—Artificial Leather, Cloth, Coated, Vinyl Resin (Upholstery).
CCC–C–426—Cloth, Drill, Cotton.
CCC–T–191—Textile Test Methods.
V–T–276—Thread, Cotton.
V–T–295—Thread, Nylon.

(3) Federal standards:

No. 595—Color.
No. 751—Stitches, Seams, and Stitchings.

(4) American Society for Testing and Materials (ASTM) Standards:

D413—Adhesion of Vulcanized Rubber (Friction Test).
D570—Water Absorption of Plastics.
D882—Tensile Properties of Thin Plastic Sheets and Films.
D1004—Tear Resistance of Plastic Film and Sheeting.

(5) Coast Guard specification:

164.015—Plastic Foam, Unicellular, Buoyant, Sheet and Molded Shape.

(b) *Plans.* The following plans, of the issue in effect on the date unicellular plastic foam life preservers are manufactured, form a part of this subpart:

Dwg. No. 160.055–1A:
Sheet 1—Construction and Arrangement, Vinyl Dip Coated, Model 63, Adult.
Sheet 2—Construction and Arrangement, Vinyl Dip Coated, Model 66, Child.
Dwg. No. 160.055–1B:
Sheet 1—Construction and Arrangement, Cloth Covered, Model 63, Adult.
Sheet 2—Buoyant Inserts, Model 63.
Sheet 3—Construction and Arrangement, Cloth Covered, Model 67, Child.
Sheet 4—Buoyant Inserts, Model 67.

(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 approved plans and certificate of approval. The Coast Guard Specification and plans may be obtained upon request from the Commandant, U.S. Coast Guard, Washington, D.C. 20226. The Federal Specifications and the Federal Standards may be purchased from the Business Service Center, General Services Administration, Washington, D.C. 20407. The Military Specifications may be obtained from the Commanding Officer, Naval Supply Depot, 5801 Tabor Avenue, Philadelphia, Pa. 19120. The ASTM Standards may be purchased from the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pa. 19103.

§ 160.055–2 Types and models.

(a) Life preservers specified by this subpart shall be of the following types and models:

Type IA—Standard, Bib Type, Vinyl Dip Coated:
Model 63—Adult.
Model 66—Child.
Type IB—Standard Bib Type, Cloth Covered:
Model 63—Adult.
Model 67—Child.
Type II—Nonstandard, Shaped Type:
Model [1]—Adult.
Model [1]—Child.

§ 160.055–3 Materials—Standard, Bib Types IA and IB life preservers.

(a) *General.* All materials used in the construction shall be obtained from suppliers who furnish an affidavit certifying that the material meets the requirements of the applicable reference specifications. The requirements for materials specified in this section are minimum requirements, and consideration will be given to the use of alternate materials in lieu of those specified. Detailed technical data and samples of all proposed alternate materials shall be submitted for acceptance prior to being incorporated in the finished product.

(b) *Unicellular plastic foam.* The unicellular plastic foam shall be all new material complying with the requirements of Subpart 164.015 of this chapter for Type A foam.

(c) *Envelope.* The life preserver envelope, or cover, shall be made of cotton drill. The color shall be Indian Orange, Cable No. 70072, Standard Color Card of America, issued by the Textile Color Association of the United States, Inc., 200 Madison Avenue, New York, N.Y., or Scarlet Munsell 7.5 Red 6/10. The drill shall be evenly dyed, and the fastness of the color to laundering, water, crocking, and light shall be rated "good" when tested in accordance with Federal Specification CCC–T–191, Methods 5610, 5630, 5650, and 5660. After dyeing, the drill shall be treated with a mildew-inhibitor of the type specified in paragraph (e) of this section. The finished goods shall contain not more than 2 percent residual sizing or other nonfibrous material, shall weigh not less than 6.5 ounces per square yard, shall have a thread count of not less than 74 in the warp and 56 in the filling, and shall have a breaking strength (grab method) of not less than 105 pounds in the warp and 70 pounds in the filling. Properly mildew-inhibited drills meeting the physical requirements of Federal Specification CCC–C–426 for Type I, Class 3 drill will be acceptable. If it is proposed to treat the fabric with a fire-retardant substance, full details shall be submitted to the Commandant for determination as to what samples will be needed for testing.

(d) *Thread*—(1) *Cotton thread.* The thread shall be Type IB, No. 20 4-ply cotton thread, conforming to the requirements of Federal Specification V–T–276, and shall be treated with a Class I (Copper-8) or Class II (G–4) mildew-inhibitor as specified in specification MIL–T–3530.

(2) *Nylon thread.* This thread shall be Class I, Type I, or II, Size E, nylon thread in accordance with the requirements of Federal Specification V–T–295.

(e) *Mildew-inhibitor.* The mildew-inhibitor shall be dihydroxydichlorodiphenylmethane, known commercially as Compound G–4, applied by the aqueous method. The amount of inhibitor deposited shall be not more than 1.50 percent and not less than 1 percent of the dry weight of the finished goods.

(f) *Adhesive.* The adhesive shall be an all-purpose waterproof vinyl type. (Minnesota Mining and Manufacturing Co. EC–870 or EC–1070, United States Rubber Co. M–6250, Herculite Protective Fabrics Corp., CVV, Pittsburgh Plate Glass Co. R 828, or equal.)

(g) *Reinforcing fabric.* The reinforcing fabric shall be Type III, Class I, laminated vinyl-nylon high strength cloth in accordance with the requirements of Specification MIL–C–43006.

(h) *Webbing.* There are no restrictions as to color, but the fastness of the color to laundering, water, crocking, and light shall be rated "good" when tested in accordance with Federal Specification CCC–T–191, Methods 5610, 5630, 5650, and 5660. The complete body strap assembly shall have a minimum breaking strength of 360 pounds.

(1) *Nylon webbing.* This webbing shall be 1-inch wide nylon webbing in accordance with the requirements of Specification MIL–W–17337.

(2) *Cotton webbing.* This webbing shall be 1-inch cotton webbing meeting

[1] Model designations for Type II, Nonstandard life preservers, are to be assigned by individual manufacturers. Designations shall differ from any standard lifesaving device.

the requirements of Specification MIL-W-530 for Type IIb webbing. This webbing shall be treated with a mildew-inhibitor of the type specified in paragraph (e) of this section.

(i) *Hardware.* All hardware shall be brass, bronze, or stainless steel, and of the approximate size indicated by the drawings. Steel hardware, protected against corrosion by plating, is not acceptable. Snap hook springs shall be phosphor bronze or other suitable corrosion-resistant material. Dee ring, o-ring, slide adjuster and snap hook ends shall be welded or brazed, or they may be a one-piece casting. The complete body strap assembly shall have a minimum breaking strength of 360 pounds.

(j) *Coating.* The coating for the plastic foam shall be a liquid elastomeric vinyl compound. The coating shall be International Orange in color (Color No. 12197 of Federal Standard 595) or Scarlet Munsel 7.5, Red 6/10 and shall meet the following requirements in Table 160.055-3(j):

TABLE 160.055-3(j)

Property	Test method	Requirement
Tensile strength	ASTM-D882, Method B, ½ in. dumbbell die.	1,200 p.s.i., minimum.
Ultimate elongation	ASTM-D882, Method B, ½ in. dumbbell die.	320 percent, minimum.
Tear resistance	ASTM-D1004, Constant Elongation Machine.	60 pounds per inch, minimum.
Abrasion resistance	FS CCC-T-191, Method 5304, No. 8 cotton duck, 6 lb. tension, 2 lb. pressure.	100,000 double rubs.
Blocking	FS CCC-T-191, Method 5872, 30 minutes at 180° F., ½ p.s.i.	No blocking.
Accelerated weathering	FS CCC-T-191, Method 5670, 120 hours	Color change—very slight. Cracking—None. Flexibility—No change.
Plasticizer heat loss	FS CCC-A-700, paragraph 4.4.4, 48 hours at 221° F.	8 percent, maximum.
Adhesion to foam—Tensile pull	ASTM-D413, machine method, 12 in. per minute, 1 in. strip.	
Film to foam skin		4 lb./in., minimum.
Film to foam (no skin)		2 lb./in., minimum.
Water absorption	ASTM-D570, 24 hours at 70° F.	0.5 percent, maximum.
Cold crack (unsupported film) 0° F.	Coast Guard, 164.015, paragraph 164.015-4(j).	No cracking.

§ 160.055-4 Materials—Nonstandard, Type II life preservers.

(a) *General.* All materials used in nonstandard Type II life preservers shall be at least equivalent to those specified in § 160.055-3 for standard Type IA or IB life preservers.

§ 160.055-5 Construction—Standard, Bib Types IA and IB life preservers.

(a) *General.* This specification covers life preservers which essentially consist of [illegible] foam buoyant material arranged [illegible] distributed so as to provide the flotation characteristics and buoyancy required to hold the wearer in an upright or slightly backward position with head and face clear of the water. The life preservers are also arranged so as to be reversible and are fitted with straps and hardware to provide proper adjustment and fit to the bodies of various size wearers.

(b) *Construction—Standard, Bib Type IA, vinyl dip coated life preservers.* This type is one piece of unicellular plastic foam, with neck hole and body slitted down the front, vinyl dip coated, and fitted with an adjustable body strap.

(1) *Buoyant material.* The buoyant material of the life preserver shall be a molded shape or made from one or two sheets of foam finished so as to have dimensions after coating in accordance with the pattern shown on Dwg. No. 160.-055-1A, Sheet 1, for adult size and Sheet 2 for child size. The reinforcing fabric shall be cemented on the foam buoyant body before coating.

(2) *Coating.* After all cutting and shaping of the buoyant body and installation of the reinforcing fabric, the entire body of the life preserver shall be coated evenly and smoothly to a minimum thickness of 0.010" with a liquid vinyl coating material of the type described in § 160.055-3(j).

(3) *Body strap.* After the coating on the buoyant body of the life preserver is fully cured, a nylon webbing body strap shall be attached as shown on Dwg. No. 160.055-1A.

(4) *Stitching.* All stitching shall be a short lock stitch, conforming to Stitch Type 301 of Federal Standard 751, with nylon thread, and there shall be not less than 9 nor more than 11 stitches to the inch. Bar tacking with nylon thread is acceptable as noted on Dwg. No. 160.055-1A.

(c) *Construction—Standard, Bib Type IB, cloth covered life preservers.* This type is three sections of unicellular plastic foam contained in a cloth envelope which has a neck hole and is slitted down the front and fitted with an adjustable body strap.

(1) *Buoyant material.* The buoyant material of the life preserver shall be three sections of foam cut so as to have finished dimensions in accordance with the patterns shown on Dwg. No. 160.055-1B, Sheet 2, for adult size and Sheet 4, for child size. One or two layers of foam may be used to make up each section.

(2) *Envelope.* The envelope shall be cut to the pattern shown on Dwg. No. 160.055-1B, Sheet 1, for adult size, and Sheet 3, for child size, and joined by seams and stitching as shown on the drawing. Alternate finished envelopes are permitted as noted on Dwg. No. 160.055-1B.

(3) *Body strap.* The body strap may be cotton or nylon webbing and shall be attached by stitching as shown on the Dwg. No. 160.055-1B, Sheet 1, for adult size and Sheet 3, for child size.

(4) *Stitching.* All stitching shall be a short lock stitch conforming to Stitch Type 301 of Federal Standard No. 751, and there shall be not less than 7 nor more than 9 stitches to the inch if cotton thread is used, and not less than 9 nor more than 11 if nylon thread is used. Bar tacking is acceptable as noted on Dwg. No. 160.055-1B.

(d) *Workmanship.* Life preservers shall be of first-class workmanship and shall be free from any defects materially affecting their appearance or serviceability.

§ 160.055-6 Construction — Nonstandard Type II life preservers.

(a) *General.* Construction methods used in non-standard Type II life preservers shall be at least equivalent to those specified in § 160.055-5 for standard Type I life preservers. Nonstandard Type II life preservers also shall meet the additional requirements specified in this section.

(b) *Sizes.* Type II life preservers shall be constructed in sizes which correspond to those specified in § 160.055-2 for Type I life preservers, i.e., adult size and child size.

(c) *Volume of buoyant material.* Adult size Type II life preservers shall contain not less than 700 cubic inches of plastic foam buoyant material; and child size not less than 350 cubic inches.

(d) *Arrangement of buoyant material.* The buoyant material in Type II life preservers shall be located and arranged so as to turn and hold the wearer in an upright or backward position with head and face out of water. Type II life preservers shall show no tendency to turn a wearer face downward in the water, and at least 68 percent and no more than 73 percent of the total buoyant material in any Type II model shall be located in the front sections.

(e) *Adjustment, fit, and donning.* Type II life preservers shall be reversible and capable of being readily and easily adjusted to fit the range of wearers for which designed. Donning time shall compare favorably with that of standard Type I life preservers.

§ 160.055-7 Sampling, tests, and inspections—Types I and II life preservers.

(a) *General.* When production is to commence on life preservers, the manufacturer shall notify the Officer in Charge, Marine Inspection, U.S. Coast Guard, of the inspection zone in which the factory is located in sufficient time for him to assign a Coast Guard Marine Inspector to the plant to observe production methods and to conduct any inspections or tests which may be deemed advisable. Manufacturers of approved life preservers shall maintain quality control of the materials used, manufacturing operations, and the finished product so as to meet the requirements of this specification. When a lot of life preservers is presented for Coast Guard

inspection, it is expected that the manufacturer will previously have taken all ordinary precautions to assure himself that the life preservers are in full compliance with the requirements of this specification. The Coast Guard inspections and tests are not intended to replace, or be a substitute for, full inspections and tests by the manufacturer to maintain the quality of his product. The Marine Inspector shall be admitted to any place in the factory where work is done on the life preservers or on component materials or parts. Samples of materials entering into construction may be taken by the marine inspector and tests made for compliance with the applicable requirements.

(b) *Lot size and sampling.* (1) A lot shall consist of not more than 500 life preservers. A new lot shall be started with any change or modification in materials used or manufacturing methods employed. When a lot of life preservers is ready for inspection, the manufacturer shall notify the Officer in Charge, Marine Inspection, U.S. Coast Guard, of the inspection zone 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 life preservers the Marine Inspector shall select samples in accordance with Table 160.055-7(b)(1) to be tested for buoyancy in accordance with paragraph (d) of this section.

TABLE 160.055-7(b)(1)—SAMPLING FOR BUOYANT TESTS

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

(2) For a lot next succeeding one from which any life preservers failed the buoyancy test, the sample shall consist of not less than 10 specimen life preservers to be tested for buoyancy in accordance with paragraph (d) of this section.

(c) *Test facilities.* The manufacturer shall provide a suitable place and the necessary apparatus for the use of the marine inspector in conducting tests to determine compliance of life preservers with this specification. The apparatus shall include accurate spring scales of adequate capacity, weighted wire mesh baskets, and a test tank or tanks which can be locked or sealed in such manner as to preclude disturbance of life preservers undergoing test or change in water level.

(d) *Buoyancy test.* Securely attach the spring scale in a position directly over the test tank. Suspend the weighted wire basket from the scale in such a manner that the basket may be weighed while it is completely under water. In order to measure the actual buoyancy provided by the life preserver, the underwater weight of the empty basket should exceed the buoyancy of the life preserver. To obtain the buoyancy of the life preserver, proceed as follows:

(1) Weigh the empty wire basket under water.

(2) Place the life preserver inside the basket, and submerge it so that the top of the basket is at least 2 inches below the surface of the water. Allow the life preserver to remain submerged for 24 hours. The tank shall be locked or sealed during this 24-hour submergence period. It is important that after the life preserver has once been submerged it shall remain submerged for the duration of the test, and at no time during the course of the test shall it be removed from the tank or otherwise exposed to air.

(3) After the 24-hour submergence period, unlock or unseal the tank and weigh the wire basket with the life preserver inside while both are still under water.

(4) The buoyancy is computed as (1) minus (3).

(e) *Buoyancy required.* Adult size life preservers shall provide not less than 22 pounds buoyancy in fresh water, and child size life preservers shall provide not less than 11 pounds buoyancy.

(f) *Lot inspection.* If the sample life preserver or preservers meet the buoyancy requirement, the marine inspector shall carefully inspect individually each of the life preservers in the lot, making such examinations and tests as are necessary to satisfy himself that the life preservers have been manufactured according to the applicable requirements. Nonconforming units shall be eliminated. The manufacturer shall provide a well lighted place equipped with a suitable smooth top table for use by the marine inspector, and shall provide labor for all handling of life preservers requisite for lot inspection.

(g) *Lot acceptance.* When the marine inspector has satisfied himself that the life preservers in the lot are of a type officially approved in the name of the company, and that such life preservers meet the applicable requirements, they shall be plainly marked in waterproof ink with the words, "Inspected and Passed, (Date), (Port), (Inspector's Initials), USCG."

(h) *Lot rejection.* If any sample life preserver fails the buoyancy test, 10 additional specimen life preservers shall be selected from the lot and tested for buoyancy. If all the 10 additional specimen life preservers pass the buoyancy test, the lot shall be considered for lot inspection as set forth in paragraph (f) of this section. If any one of the 10 additional specimen life preservers fails the buoyancy test, the lot shall be rejected. If, in the lot inspection, three or more nonconforming units are eliminated for the same kind of defect, lot inspection shall be discontinued until such time as the manufacturer has inspected the remainder of the lot and eliminated or corrected any additional units having the same kind of defect. Nonconforming units which are eliminated in the lot inspection may be resubmitted for inspection, provided that all defects have been corrected to the satisfaction of the marine inspector. When permitted by the Commander of the Coast Guard District, rejected lots may be reworked by the manufacturer to correct the deficiency for which they were rejected and to eliminate all nonconforming units, following which the remainder of the lot may be resubmitted for official testing and inspection. Life preservers 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 or motorboats.

(i) *Additional tests for Type II life preservers.* For Type II life preservers additional tests such as tests to determine performance in the water, extended service test to determine suitability of materials, tests to determine comparative donning time and ease of adjustment, and such other tests as may be necessary to determine equivalence to the standard Type I life preservers, may be required prior to approval or during inspection of production lots.

§ 160.055-8 Marking—Types I and II life preservers.

(a) *General.* Each life preserver shall be plainly marked across the front in letters not less than ¾" in height with the word "ADULT" or "CHILD," as the case may be, and in letters ¼" to ⅜" in height with "Type (IA, IB, or II) Model No. _____, Unicellular Plastic Foam Life Preserver—Approved for Use on All Vessels and Motorboats (Manufacturer's Name and Address), U.S.C.G. Approval No. _____." The marking shall be plainly printed in waterproof ink.

§ 160.055-9 Procedure for approval—Types I and II life preservers.

(a) *General.* Life preservers for use on merchant vessels or motorboats are approved only by the Commandant, U.S. Coast Guard, Washington, D.C. 20226. Each model life preserver is considered separately. Application for approval and 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) *Approval of Type I life preservers.* Upon receipt of an application for approval of standard Type IA or IB life preservers, the Commander of the Coast Guard District will detail a marine inspector to the factory to observe the production facilities and manufacturing methods and to select from not less than 10 life preservers already manufactured not less than three of each model for examination and test for compliance with the requirements of this specification. A copy of the marine inspector's report, together with a fourth specimen life preserver selected from those already manufactured, and one copy of an affidavit for each material used will be forwarded to the Commandant, and if satisfactory, an official approval number will be assigned to the manufacturer for the Type I life preserver submitted.

(c) *Approval of Type II life preservers.* Upon receipt of an application for approval of non-standard Type II life preservers, the Commander of the Coast

Guard District will detail a marine inspector to the factory to observe the production facilities and manufacturing methods and to select three sample life preservers of each model for which approval is desired. The sample life preservers will be forwarded to the Commandant, together with a copy of the marine inspector's report. At the time the preapproval samples are selected, the manufacturer shall also submit to the marine inspector four prints each of fully dimensioned, full scale drawings showing all details of construction of the sample life preservers submitted, material affidavits, and four copies of a bill of materials showing all materials used in construction of the life preservers. After examination of the samples, drawings, and other materials submitted, the manufacturer will be advised of any changes or corrections considered necessary, and any additional samples or other material required. If the samples, drawings, and other material are found satisfactory, tests of the samples will be authorized. If the results of the tests are satisfactory, an official approval number will be assigned to the manufacturer for the Type II life preserver submitted.

(d) *Private brand labels.* Private brand labels are those bearing the name and address of a distributor in lieu of the manufacturer. In order for a manufacturer to apply for an approval number to be used on such a private brand label, he shall forward a letter of request to the Commander of the Coast Guard District in which the factory is located, setting forth the life preservers involved, together with a letter from his distributor also requesting that approval be issued. The manufacturer's request for approval, together with that of his distributor, will be forwarded to the Commandant, and when deemed advisable, an approval number [illegible] numbers will be issued in the name of [illegible] distributor. Approvals issued to a distributor under such an arrangement shall apply only to life preservers made by the manufacturer named on the certificate of approval, and this manufacturer shall be responsible for compliance of the life preservers with the requirements of this subpart.

Dated: March 30, 1967.

[SEAL] P. E. TRIMBLE,
Vice Admiral, U.S. Coast Guard,
Acting Commandant.

[F.R. Doc. 67-3661; Filed Mar. 31, 1967; 8:49 a.m.]

Chapter IV—Federal Maritime Commission

SUBCHAPTER B—REGULATIONS AFFECTING MARITIME CARRIERS AND RELATED ACTIVITIES

[Docket No. 66-19; General Order 21]

PART 513—AUDITS AND AUDITING PROCEDURES

This rule making proceeding was instituted by the Commission by notice published in the FEDERAL REGISTER on April 8, 1966 (31 F.R. 5575), following the remand of the U.S. Court of Appeals for the District of Columbia Circuit in Alcoa Steamship Company v. Federal Maritime Commission and United States of America, 121 U.S. App. D.C. 144, 348 F. 2d 753 (1965). Reference is made to the Court of Appeals' opinion and the notice of proposed rule making for a complete discussion of the background of the proceedings.

Briefly, however, this proceeding had its genesis when Alcoa Steamship Co., a common carrier by water engaged in the domestic offshore trades of the United States and subject to the regulatory jurisdiction of this Commission, filed with the Commission its annual financial report for the calendar year 1962. In order to verify the contents of the report, the Commission sought to audit the corporate records of Alcoa, but attempts to conduct an audit were unsuccessful. Thereafter, on April 7, 1964, the Commission issued an order pursuant to section 21 of the Shipping Act, 1916 (46 U.S.C. 820), requiring that Alcoa produce at the Commission's offices certain named books and records for the purpose of verifying the 1962 financial report. Alcoa promptly filed a petition to review the order with the U.S. Court of Appeals for the District of Columbia Circuit (No. 18,097).

Subsequent to the filing of the petition to review the order, the Commission issued final rules in its Docket No. 1152, Reports of Rate Base and Income Account of Domestic Offshore Carriers, which were published in the FEDERAL REGISTER on June 17, 1964 (29 F.R. 7721), as 46 CFR Part 512. These rules required the filing of reports covering rate base and income account for each regulated common carrier trade as distinguished from the corporate-wide financial reports required by the Commission under its General Order 5. The rules contained a provision requiring that all working papers used in support of reports submitted to the Commission pursuant to the rules would be made available to the Commission's auditors, and that the auditors could make copies of such working papers as they desired. Alcoa again filed a petition to review with the Court of Appeals, seeking review of the provision of the rules permitting audits (No. 18,097). The cases were briefed and argued separately, but the Court of Appeals consolidated them for decision.

The Court remanded both the order and the rule to the Commission for reconsideration in the light of its opinion. It found that section 21 did not contain authority for auditing original corporate records and documents, but that the relatively new section 43 of the Shipping Act, 1916 (46 U.S.C. 841a), enacted in 1961, authorized the Commission "to adopt procedural rules comparable to its sister agencies." 343 F. 2d at 761. Section 43, the Court held, authorized the adoption of rules which would permit inspection of original corporate records and documents, provided the Commission found that such rules were necessary to substantive regulation under the Act, and that an unequal burden was not imposed by the rules on American-flag carriers vis-a-vis their foreign-flag competitors. The Court then went on to state that the Commission had demonstrated that access by its auditors was necessary to substantive regulation under the Intercoastal Shipping Act, 1933.

Proceeding in conformity with the opinion and mandate of the Court of Appeals, the Commission instituted this rule making proceeding in order to allow complete consideration of the problems raised by the Court and those which might be raised by interested parties as regards audits by Commission personnel of original corporate records. The precise issue before the Commission had already been framed by the Court of Appeals; i.e., did access by Commission auditors result in the imposition of an unequal burden on American-flag carriers. We think the Court's language on this point bears repeating:

> The Commission's determination whether a burden is likely to occur may not lightly be disturbed on review since the Commission has close acquaintance with the problems involved and the likely effects of its actions. In the context of audit or other inspection of corporate records, the Commission's inquiry might include, inter alia, consideration whether: (1) Matters discovered are likely to be disclosed to competitors who need not supply like information; (2) audit or inspection can be limited to particular records, whose disclosure would not be prejudicial; (3) being audited or inspected itself imposes a substantial, unshared burden on American carriers. 348 F. 2d at 763.

The proposed rules were drafted bearing in mind the questions raised by the Court. Moreover, the Commission asked that interested parties specifically address themselves to these problems, although other arguments were of course not foreclosed. The Commission received comments from six steamship companies and the Governments of the States of Hawaii and Alaska and the Commonwealth of Puerto Rico. After the comments were filed, the Commission heard oral argument.

The Commission has carefully considered the comments and arguments submitted, and the final rules promulgated herein have been drafted with these comments and arguments in mind. Comments and arguments not discussed herein have been considered and found not relevant or justified.

Initially, the Commission's authority to promulgate rules concerning audits has been challenged because, it is argued, section 43 confers rule-making authority on the Commission only with respect to the Shipping Act, 1916, and not in Intercoastal Shipping Act, 1933. We think this argument is without merit. Section 7 of the Intercoastal Shipping Act states:

> The provisions of the Shipping Act, 1916, as amended, shall in all respects, except as amended by this Act, continue to be applicable to every carrier subject to the provisions of this Act. [46 U.S.C. 847]

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1. Inspect the davit installation at least weekly, operating the winch as necessary to ascertain that all safety devices are functioning properly.

2. During the weekly inspection particular attention should be paid the electrical components mounted in exposed locations. Leakage of water into the enclosures of those components is one of the major causes of casualties. All seals, gaskets and cover bolts should be in place and in good condition. In addition, all those limit and interlock switches not located in such a position as to be subjected to wash, should be provided with a 1/4-inch drain hole in the lowest part of the housing to prevent accumulation of moisture.

3. The inspection should include a determination that all contactors in the control panel are operating freely and that the contacts are in good condition. This is particularly important where the contral includes the "double break" feature since one contactor might stick and yet permit apporently normal operation without the expected protection.

4. The inspection should include a check of insulation resistance to ground, particularly through external switches.

5. The inspection should demonstrate that davit arms of the gravity type davits travel inboard together. Adjustment of the length of the boat falls may be required.

6. Regular lubrication of mechanical components as outlined in individual technical manuals should be accomplished.

7. The winch manual brake should be kept in proper adjustment and the braking surfaces kept free from rust and grease.

8. The wire rope falls should be replaced during each regular overhaul period and more frequently if indicated necessary by weekly inspection. Replacement is considered necessary when a broken strand appears, when any of the outer strands appear to be worn to two-thirds of their original diameters or when the falls have been subjected to excessive strain due to kinking or sharp bends. The falls should be kept properly greased at all times. For additional information concerning wire rope and sheaves, reference should be made to the Bureau of Ships Technical Manual chapter 9270, "Wire Rope."

9. Other points requiring more regular inspection include the centrifugal brake, strongback trunnion bearings and block latching mechanisms where used.

10. Welding repairs to the body or tumbler bearing surface of Raymond (disc-bearing) hooks shall not be undertaken by forces afloat except in extreme emergency. Hooks should be replaced when damaged and damaged hooks turned into Shipyard for repair.

9820.187. TESTS FOR GRAVITY DAVITS

Boat davits should be tested after each new installation, after major repairs and annually, as outlined below. The test should be selected on a basis of davit design capacity rather than on a basis of weight of boats being handled by the davit. Original label plates shall not be changed under any conditions. For testing purposes davits may be grouped as davits designed for handling landing craft and those designed for handling other than landing craft, such as motor whaleboats, lifeboats, and motor launches. Required design capacities for later landing craft handling davits have been increased so that that group may be further divided, for test purposes, into old design and new design davits. In general, the new design davits will be found on LSD28 class, LST1156 class, AKA112 conversion and subsequent ships of similar or later design, however, this should be confirmed by reference to applicable technical manuals. Accordingly, test loads (see table 2) have been designated as follows:

1. Test A—For old design davits for handling landing craft.
2. Test B—For new design davits for handling landing craft.
3. Test C—For davits for handling other than landing craft.

Reference should be made to individual technical manuals for rated line speeds, and to insure that the proper test (see table 2) is being applied.

9820.188. TESTS FOR MECHANICAL AND RADIAL DAVITS

Mechanical davits should be tested in accordance with Test D of Table 2. Radial davits should be tested in accordance with Test E of Table 2. Reference should be made to the individual technical manuals for rated line speeds.

9820.189. DESIGN LOADS FOR LIFTING GEAR

In designing booms or cranes for single point suspension, the design working loads should be based on the weights given in table 1 plus 10 percent.

9820.190. BLOCKS AND FALLS

1. Blocks and falls for handling boats at davits shall be in accordance with the requirements of the General Specification for Ships and Bureau of Ships Hull Type Plans.

2. Where boats are carried in davits having manila or nylon falls the upper block may be steel. The lower block shall have wood cheeks and shall be fitted with a standard disc-bearing Raymond release hook.

9820.191. GENERAL NOTES

Many davit installations did not originally include one or more of the features previously discussed. It is recommended, therefore, that a careful check be made to ascertain that all authorized modifications have been accomplished. The modifications may have been authorized by either a SHIPALT or Bureau of Ships letter.

9820.192. DESIGN OF BOAT STOWAGES

1. **General considerations.** The proper design of davit and deck stowages involves several basic details which must be thoroughly considered in order to prevent damage to the ship's boats and to facilitate their handling. Improper stowage results in hogging of the boats' keel, misalined shafts, and distortion of the hull to such a degree that early replacement of the craft is necessary. Ship's boats are often lowered and retrieved under adverse conditions and frequently while the ship is underway. The speed of the davit and crane winches, and the location of the stowages is of importance in this regard, if the damage which might occur due to the roll of the ship is to be prevented. Similarly, deck stowages should be designed in such a manner that the boat can be easily placed in its stowed position regardless of the ships' roll. All stowages

1. All trackway type davits, whether single or multiple bank, should have stripes of contrasting color, visible from the operating station, painted on the davit head and trackways. If these stripes are not evident they shall be painted on the head and trackway so that they coincide under the following conditions:

a. When the davit heads are at the stowed position—for those davits where the inboard positive stops, or the solidly compressed position of buffer springs, are more than eight inches from the inboard contact surface of the davit head when stowed.

b. At a minimum distance of eight inches from the inboard positive stops or solidly compressed position of the buffer springs—for those davits where the distance from these stops to the inboard contact surface of the davit head when stowed is eight inches or less.

c. For pivoted type davits the stripes should be painted to coincide at stowed position.

2. **Emergency disconnect switch.** A switch connected in the winch motor supply leads, between the motor and the motor controller. This switch is located at the winch operator's station and turns off the motor when actuated by the winch operator. The switch is intended for use in preventing two-blocking of the davit when some other control component fails to function properly. The most serious limitation of this device is that the emergency must be recognized by the winch operator in time to permit his actuating the switch prior to an actual casualty.

3. **Handcrank interlock switches.** Control interlock switches so mounted on the winch that in order to engage the handcrank the switch must be opened. The function of these switches is to prevent inadvertent energization of the winch motor when the winch is being cranked manually. Power operation at that time may be fatal to personnel operating the handcranks. The major limitation of this device is the fact that contractors in the control panel may be closed manually by uninformed maintenance personnel thus energizing the motor. In this connection, attention is invited to paragraph 9600.181 of the **Bureau of Ships Technical Manual**, chapter 9600, "Electric Plant—General." Some winches are equipped with clutching arrangements which require that the motor be declutched before the handcranks can be engaged. These winches may not include handcrank interlock switches.

4. **Trackway limit switches.** Control limit switches, located on each trackway of trackway type davits, so located as to turn off the winch motor and prevent the davit arms from being driven into the positive stops under power, in the event the arms are inadvertently allowed to be driven beyond safe power hoisting position. The primary limitation of this device is its relative inaccessibility which often leads to poor maintenance. It is to be emphasized that trackway limit switches are intended to function as over-travel switches, **not as stop switches.**

5. **Hoist limit switches.** Control limit switches, usually of the geared type, installed on drum type winches used for hoisting the boats with mechanical davits, with generally the same purpose and limitations as trackway limit switches.

6. **Safety type handcranks.** Handcranks including a mechanism which is overriding in the hoist direction of rotation and which functions in such a manner that, if the winch motor is energized while the winch is being manually cranked, no force is exerted on the crank handle from the winch side. This device is limited to use on nonreversing winches and may be used in lieu of handcrank interlock switches on that type of winch.

7. **Brake interlock switch.** Control interlock switch connected to the manual brake on reversing winches and functioning to prevent energizing the motor in the payout direction when the brake is not released. This switch is intended primarily for protection of the winch gearing and should not be used as a stop switch.

8. Other safety features not included as separate devices are the "double break" feature in winch control panels and alternating current contractors derated for jogging service. The double break feature is the inclusion in the control of sufficient contactors so arranged that when the motor power supply is interrupted by the controller, the supply leads are opened in two places by contactors which are independently turned on.

9820.185. SAFETY PRECAUTIONS

The most effective safety precaution is a vigorous program of preventive maintenance! Most casualties are properly attributable to improperly maintained equipment rather than to design deficiencies or personnel failure. Bureau of Ships Technical Manual chapter 9600, "Electric Plant—General," sections II and IV, list certain precautions to be observed in connection with electrical equipment. In addition to the above and any precautions contained in equipment technical manuals, the following should be observed:

1. See that all nonoperating personnel are clear of the area prior to any boat handling operation.
2. Ensure that qualified operators are present for every operation.
3. Do not turn on the winch electric motor when a boat is being lowered.
4. Keep the number of personnel riding in a boat to the minimum required for launching and stowing operations.
5. Ensure that personnel riding the boat use lifelines.
6. Ensure that lifting hooks are secure before a boat is raised or lowered.
7. Be alert for any possible malfunctioning and act quickly if it occurs.
8. In the event davit arms on Type I and Type II davits are returned to stowage position without a boat, care should be exercised to prevent tipping of the floating block and subsequent chafing of the boat falls.
9. Ascertain that stopper bars are removed from the trackway prior to hoisting a boat.
10. When paying out empty falls under power, do not stop the winch motor by means of the brake interlock switch. Use the master switch for this purpose.

9820.186. MAINTENANCE

Improperly maintained equipment is seldom safe equipment. Accordingly, the following maintenance items are listed, supplementing those contained in the technical manuals for individual equipment and those contained in the Bureau of Ships Technical Manual chapters 9600 and 9630:

the requirements of Specification MIL-W-530 for Type IIb webbing. This webbing shall be treated with a mildew-inhibitor of the type specified in paragraph (e) of this section.

(i) *Hardware.* All hardware shall be brass, bronze, or stainless steel, and of the approximate size indicated by the drawings. Steel hardware, protected against corrosion by plating, is not acceptable. Snap hook springs shall be phosphor bronze or other suitable corrosion-resistant material. Dee ring, o-ring, slide adjuster and snap hook ends shall be welded or brazed, or they may be a one-piece casting. The complete body strap assembly shall have a minimum breaking strength of 360 pounds.

(j) *Coating.* The coating for the plastic foam shall be a liquid elastomeric vinyl compound. The coating shall be International Orange in color (Color No. 12197 of Federal Standard 595) or Scarlet Munsel 7.5, Red 6/10 and shall meet the following requirements in Table 160.055–3(j):

TABLE 160.055-3(j)

Property	Test method	Requirement
Tensile strength	ASTM-D882, Method B, ½ in. dumbbell die.	1,200 p.s.i., minimum.
Ultimate elongation	ASTM-D882, Method B, ½ in. dumbbell die.	220 percent, minimum.
Tear resistance	ASTM-D1004, Constant Elongation Machine.	90 pounds per inch, minimum.
Abrasion resistance	FS CCC-T-191, Method 5304, No. 8 cotton duck, 6 lb. tension, 2 lb. pressure.	100,000 double rubs.
Blocking	FS CCC-T-191, Method 5872, 30 minutes at 180° F., ½ p.s.i.	No blocking.
Accelerated weathering	FS CCC-T-191, Method 5670, 120 hours	Color change—very slight. Cracking—None. Flexibility—No change.
Plasticizer heat loss	FS CCC-A-700, paragraph 4.4.4, 48 hours at 221° F.	6 percent, maximum.
Adhesion to foam—Tensile pull	ASTM-D413, machine method, 12 in. per minute, 1 in. strip.	
Film to foam skin		4 lb./in., minimum.
Film to foam (no skin)		2 lb./in., minimum.
Water absorption	ASTM-D570, 24 hours at 70° F.	0.5 percent, maximum.
Cold crack (unsupported film) 0° F.	Coast Guard, 164.015, paragraph 164.015-4(j).	No cracking.

§ 160.055–4 Materials—Nonstandard, Type II life preservers.

(a) *General.* All materials used in nonstandard Type II life preservers shall be at least equivalent to those specified in § 160.055–3 for standard Type IA or IB life preservers.

§ 160.055–5 Construction—Standard, Bib Types IA and IB life preservers.

(a) *General.* This specification covers life preservers which essentially consist of [illegible] foam buoyant material arranged and distributed so as to provide the flotation characteristics and buoyancy required to hold the wearer in an upright or slightly backward position with head and face clear of the water. The life preservers are also arranged so as to be reversible and are fitted with straps and hardware to provide proper adjustment and fit to the bodies of various size wearers.

(b) *Construction—Standard, Bib Type IA, vinyl dip coated life preservers.* This type is one piece of unicellular plastic foam, with neck hole and body slitted down the front, vinyl dip coated, and fitted with an adjustable body strap.

(1) *Buoyant material.* The buoyant material of the life preserver shall be a molded shape or made from one or two sheets of foam finished so as to have dimensions after coating in accordance with the pattern shown on Dwg. No. 160.055–1A, Sheet 1, for adult size and Sheet 2 for child size. The reinforcing fabric shall be cemented on the foam buoyant body before coating.

(2) *Coating.* After all cutting and shaping of the buoyant body and installation of the reinforcing fabric, the entire body of the life preserver shall be coated evenly and smoothly to a minimum thickness of 0.010" with a liquid vinyl coating material of the type described in § 160.055–3(j).

(3) *Body strap.* After the coating on the buoyant body of the life preserver is fully cured, a nylon webbing body strap shall be attached as shown on Dwg. No. 160.055–1A.

(4) *Stitching.* All stitching shall be a short lock stitch, conforming to Stitch Type 301 of Federal Standard 751, with nylon thread, and there shall be not less than 9 nor more than 11 stitches to the inch. Bar tacking with nylon thread is acceptable as noted on Dwg. No. 160.055–1A.

(c) *Construction—Standard, Bib Type IB, cloth covered life preservers.* This type is three sections of unicellular plastic foam contained in a cloth envelope which has a neck hole and is slitted down the front and fitted with an adjustable body strap.

(1) *Buoyant material.* The buoyant material of the life preserver shall be three sections of foam cut so as to have finished dimensions in accordance with the patterns shown on Dwg. No. 160.055–1B, Sheet 2, for adult size and Sheet 4, for child size. One or two layers of foam may be used to make up each section.

(2) *Envelope.* The envelope shall be cut to the pattern shown on Dwg. No. 160.055–1B, Sheet 1, for adult size, and Sheet 3, for child size, and joined by seams and stitching as shown on the drawing. Alternate finished envelopes are permitted as noted on Dwg. No. 160.055–1B.

(3) *Body strap.* The body strap may be cotton or nylon webbing and shall be attached by stitching as shown on the Dwg. No. 160.055–1B, Sheet 1, for adult size and Sheet 3, for child size.

(4) *Stitching.* All stitching shall be a short lock stitch conforming to Stitch Type 301 of Federal Standard No. 751, and there shall be not less than 7 nor more than 9 stitches to the inch if cotton thread is used, and not less than 9 nor more than 11 if nylon thread is used. Bar tacking is acceptable as noted on Dwg. No. 160.055–1B.

(d) *Workmanship.* Life preservers shall be of first-class workmanship and shall be free from any defects materially affecting their appearance or serviceability.

§ 160.055–6 Construction — Nonstandard Type II life preservers.

(a) *General.* Construction methods used in non-standard Type II life preservers shall be at least equivalent to those specified in § 160.055–5 for standard Type I life preservers. Nonstandard Type II life preservers also shall meet the additional requirements specified in this section.

(b) *Sizes.* Type II life preservers shall be constructed in sizes which correspond to those specified in § 160.055–2 for Type I life preservers, i.e., adult size and child size.

(c) *Volume of buoyant material.* Adult size Type II life preservers shall contain not less than 700 cubic inches of plastic foam buoyant material; and child size not less than 350 cubic inches.

(d) *Arrangement of buoyant material.* The buoyant material in Type II life preservers shall be located and arranged so as to turn and hold the wearer in an upright or backward position with head and face out of water. Type II life preservers shall show no tendency to turn a wearer face downward in the water, and at least 68 percent and no more than 73 percent of the total buoyant material in any Type II model shall be located in the front sections.

(e) *Adjustment, fit, and donning.* Type II life preservers shall be reversible and capable of being readily and easily adjusted to fit the range of wearers for which designed. Donning time shall compare favorably with that of standard Type I life preservers.

§ 160.055–7 Sampling, tests, and inspections—Types I and II life preservers.

(a) *General.* When production is to commence on life preservers, the manufacturer shall notify the Officer in Charge, Marine Inspection, U.S. Coast Guard, of the inspection zone in which the factory is located in sufficient time for him to assign a Coast Guard Marine Inspector to the plant to observe production methods and to conduct any inspections or tests which may be deemed advisable. Manufacturers of approved life preservers shall maintain quality control of the materials used, manufacturing operations, and the finished product so as to meet the requirements of this specification. When a lot of life preservers is presented for Coast Guard

inspection, it is expected that the manufacturer will previously have taken all ordinary precautions to assure himself that the life preservers are in full compliance with the requirements of this specification. The Coast Guard inspections and tests are not intended to replace, or be a substitute for, full inspections and tests by the manufacturer to maintain the quality of his product. The Marine Inspector shall be admitted to any place in the factory where work is done on the life preservers or on component materials or parts. Samples of materials entering into construction may be taken by the marine inspector and tests made for compliance with the applicable requirements.

(b) *Lot size and sampling.* (1) A lot shall consist of not more than 500 life preservers. A new lot shall be started with any change or modification in materials used or manufacturing methods employed. When a lot of life preservers is ready for inspection, the manufacturer shall notify the Officer in Charge, Marine Inspection, U.S. Coast Guard, of the inspection zone 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 life preservers the Marine Inspector shall select samples in accordance with Table 160.055-7(b)(1) to be tested for buoyancy in accordance with paragraph (d) of this section.

TABLE 160.055-7(b)(1)—SAMPLING FOR BUOYANT TESTS

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

(2) For a lot next succeeding one from which any life preservers failed the buoyancy test, the sample shall consist of not less than 10 specimen life preservers to be tested for buoyancy in accordance with paragraph (d) of this section.

(c) *Test facilities.* The manufacturer shall provide a suitable place and the necessary apparatus for the use of the marine inspector in conducting tests to determine compliance of life preservers with this specification. The apparatus shall include accurate spring scales of adequate capacity, weighted wire mesh baskets, and a test tank or tanks which can be locked or sealed in such manner as to preclude disturbance of life preservers undergoing test or change in water level.

(d) *Buoyancy test.* Securely attach the spring scale in a position directly over the test tank. Suspend the weighted wire basket from the scale in such a manner that the basket may be weighed while it is completely under water. In order to measure the actual buoyancy provided by the life preserver, the underwater weight of the empty basket should exceed the buoyancy of the life preserver. To obtain the buoyancy of the life preserver, proceed as follows:

(1) Weigh the empty wire basket under water.

(2) Place the life preserver inside the basket, and submerge it so that the top of the basket is at least 2 inches below the surface of the water. Allow the life preserver to remain submerged for 24 hours. The tank shall be locked or sealed during this 24-hour submergence period. It is important that after the life preserver has once been submerged it shall remain submerged for the duration of the test, and at no time during the course of the test shall it be removed from the tank or otherwise exposed to air.

(3) After the 24-hour submergence period, unlock or unseal the tank and weigh the wire basket with the life preserver inside while both are still under water.

(4) The buoyancy is computed as (1) minus (3).

(e) *Buoyancy required.* Adult size life preservers shall provide not less than 22 pounds buoyancy in fresh water, and child size life preservers shall provide not less than 11 pounds buoyancy.

(f) *Lot inspection.* If the sample life preserver or preservers meet the buoyancy requirement, the marine inspector shall carefully inspect individually each of the life preservers in the lot, making such examinations and tests as are necessary to satisfy himself that the life preservers have been manufactured according to the applicable requirements. Nonconforming units shall be eliminated. The manufacturer shall provide a well lighted place equipped with a suitable smooth top table for use by the marine inspector, and shall provide labor for all handling of life preservers requisite for lot inspection.

(g) *Lot acceptance.* When the marine inspector has satisfied himself that the life preservers in the lot are of a type officially approved in the name of the company, and that such life preservers meet the applicable requirements, they shall be plainly marked in waterproof ink with the words, "Inspected and Passed, (Date), (Port), (Inspector's Initials), USCG."

(h) *Lot rejection.* If any sample life preserver fails the buoyancy test, 10 additional specimen life preservers shall be selected from the lot and tested for buoyancy. If all the 10 additional specimen life preservers pass the buoyancy test, the lot shall be considered for lot inspection as set forth in paragraph (f) of this section. If any one of the 10 additional specimen life preservers fails the buoyancy test, the lot shall be rejected. If, in the lot inspection, three or more nonconforming units are eliminated for the same kind of defect, lot inspection shall be discontinued until such time as the manufacturer has inspected the remainder of the lot and eliminated or corrected any additional units having the same kind of defect. Nonconforming units which are eliminated in the lot inspection may be resubmitted for inspection, provided that all defects have been corrected to the satisfaction of the marine inspector. When permitted by the Commander of the Coast Guard District, rejected lots may be reworked by the manufacturer to correct the deficiency for which they were rejected and to eliminate all nonconforming units, following which the remainder of the lot may be resubmitted for official testing and inspection. Life preservers 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 or motorboats.

(i) *Additional tests for Type II life preservers.* For Type II life preservers additional tests such as tests to determine performance in the water, extended service test to determine suitability of materials, tests to determine comparative donning time and ease of adjustment, and such other tests as may be necessary to determine equivalence to the standard Type I life preservers, may be required prior to approval or during inspection of production lots.

§ 160.055-8 Marking—Types I and II life preservers.

(a) *General.* Each life preserver shall be plainly marked across the front in letters not less than ¾" in height with the word "ADULT" or "CHILD," as the case may be, and in letters ¼" to ⅜" in height with "Type (IA, IB, or II) Model No. _____, Unicellular Plastic Foam Life Preserver—Approved for Use on All Vessels and Motorboats (Manufacturer's Name and Address), U.S.C.G. Approval No. _____." The marking shall be plainly printed in waterproof ink.

§ 160.055-9 Procedure for approval—Types I and II life preservers.

(a) *General.* Life preservers for use on merchant vessels or motorboats are approved only by the Commandant, U.S. Coast Guard, Washington, D.C. 20226. Each model life preserver is considered separately. Application for approval and 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) *Approval of Type I life preservers.* Upon receipt of an application for approval of standard Type IA or IB life preservers, the Commander of the Coast Guard District will detail a marine inspector to the factory to observe the production facilities and manufacturing methods and to select from not less than 10 life preservers already manufactured not less than three of each model for examination and test for compliance with the requirements of this specification. A copy of the marine inspector's report, together with a fourth specimen life preserver selected from those already manufactured, and one copy of an affidavit for each material used will be forwarded to the Commandant, and if satisfactory, an official approval number will be assigned to the manufacturer for the Type I life preserver submitted.

(c) *Approval of Type II life preservers.* Upon receipt of an application for approval of non-standard Type II life preservers, the Commander of the Coast

Guard District will detail a marine inspector to the factory to observe the production facilities and manufacturing methods and to select three sample life preservers of each model for which approval is desired. The sample life preservers will be forwarded to the Commandant, together with a copy of the marine inspector's report. At the time the preapproval samples are selected, the manufacturer shall also submit to the marine inspector four prints each of fully dimensioned, full scale drawings showing all details of construction of the sample life preservers submitted, material affidavits, and four copies of a bill of materials showing all materials used in construction of the life preservers. After examination of the samples, drawings, and other materials submitted, the manufacturer will be advised of any changes or corrections considered necessary, and any additional samples or other material required. If the samples, drawings, and other material are found satisfactory, tests of the samples will be authorized. If the results of the tests are satisfactory, an official approval number will be assigned to the manufacturer for the Type II life preserver submitted.

(d) *Private brand labels.* Private brand labels are those bearing the name and address of a distributor in lieu of the manufacturer. In order for a manufacturer to apply for an approval number to be used on such a private brand label, he shall forward a letter of request to the Commander of the Coast Guard District in which the factory is located, setting forth the life preservers involved, together with a letter from his distributor also requesting that approval be issued. The manufacturer's request for approval, together with that of his distributor, will be forwarded to the Commandant, and when deemed advisable, an approval number or numbers will be issued in the name of the distributor. Approvals issued to a distributor under such an arrangement shall apply only to life preservers made by the manufacturer named on the certificate of approval, and this manufacturer shall be responsible for compliance of the life preservers with the requirements of this subpart.

Dated: March 30, 1967.

[SEAL] P. E. TRIMBLE,
Vice Admiral, U.S. Coast Guard,
Acting Commandant.

[F.R. Doc. 67-3661; Filed Mar. 31, 1967; 8:49 a.m.]

Chapter IV—Federal Maritime Commission

SUBCHAPTER B—REGULATIONS AFFECTING MARITIME CARRIERS AND RELATED ACTIVITIES

[Docket No. 66-19; General Order 21]

PART 513—AUDITS AND AUDITING PROCEDURES

This rule making proceeding was instituted by the Commission by notice published in the FEDERAL REGISTER on April 8, 1966 (31 F.R. 5575), following the remand of the U.S. Court of Appeals for the District of Columbia Circuit in Alcoa Steamship Company v. Federal Maritime Commission and United States of America, 121 U.S. App. D.C. 144, 348 F. 2d 756 (1965). Reference is made to the Court of Appeals' opinion and the notice of proposed rule making for a complete discussion of the background of the proceedings.

Briefly, however, this proceeding had its genesis when Alcoa Steamship Co., a common carrier by water engaged in the domestic offshore trades of the United States and subject to the regulatory jurisdiction of this Commission, filed with the Commission its annual financial report for the calendar year 1963. In order to verify the contents of the report, the Commission sought to audit the corporate records of Alcoa, but attempts to conduct an audit were unsuccessful. Thereafter, on April 7, 1964, the Commission issued an order pursuant to section 21 of the Shipping Act, 1916 (46 U.S.C. 820), requiring that Alcoa produce at the Commission's offices certain named books and records for the purpose of verifying the 1962 financial report. Alcoa promptly filed a petition to review the order with the U.S. Court of Appeals for the District of Columbia Circuit (No. 18,057).

Subsequent to the filing of the petition to review the order, the Commission issued final rules in its Docket No. 1152, Reports of Rate Base and Income Account of Domestic Offshore Carriers, which were published in the FEDERAL REGISTER on June 17, 1964 (29 F.R. 7721), as 46 CFR Part 512. These rules required the filing of reports covering rate base and income account for each regulated common carrier trade as distinguished from the corporate-wide financial reports required by the Commission under its General Order 5. The rules contained a provision requiring that all working papers used in support of reports submitted to the Commission pursuant to the rules would be made available to the Commission's auditors, and that the auditors could make copies of such working papers as they desired. Alcoa again filed a petition to review with the Court of Appeals, seeking review of the provision of the rules permitting audits (No. 19,007). The cases were briefed and argued separately, but the Court of Appeals consolidated them for decision.

The Court remanded both the order and the rule to the Commission for reconsideration in the light of its opinion. It found that section 21 did not contain authority for auditing original corporate records and documents, but that the relatively new section 43 of the Shipping Act, 1916 (46 U.S.C. 841a), enacted in 1961, authorized the Commission "to adopt procedural rules comparable to its sister agencies." 348 F. 2d at 761. Section 43, the Court held, authorized the adoption of rules which would permit inspection of original corporate records and documents, provided the Commission found that such rules were necessary to substantive regulation under the Act, and that an unequal burden was not imposed by the rules on American-flag carriers vis-a-vis their foreign-flag competitors. The Court then went on to state that the Commission had demonstrated that access by its auditors was necessary to substantive regulation under the Intercoastal Shipping Act, 1933.

Proceeding in conformity with the opinion and mandate of the Court of Appeals, the Commission instituted this rule making proceeding in order to allow complete consideration of the problems raised by the Court and those which might be raised by interested parties as regards audits by Commission personnel of original corporate records. The precise issue before the Commission had already been framed by the Court of Appeals; i.e., did access by Commission auditors result in the imposition of an unequal burden on American-flag carriers. We think the Court's language on this point bears repeating:

> The Commission's determination whether a burden is likely to occur may not lightly be disturbed on review since the Commission has close acquaintance with the problems involved and the likely effects of its actions. In the context of audit or other inspection of corporate records, the Commission's inquiry might include, inter alia, consideration whether: (1) Matters discovered are likely to be disclosed to competitors who need not supply like information; (2) audit or inspection can be limited to particular records, whose disclosure would not be prejudicial; (3) being audited or inspected itself imposes a substantial, unshared burden on American carriers. 348 F. 2d at 765.

The proposed rules were drafted bearing in mind the questions raised by the Court. Moreover, the Commission asked that interested parties specifically address themselves to these problems, although other arguments were of course not foreclosed. The Commission received comments from six steamship companies and the Governments of the States of Hawaii and Alaska and the Commonwealth of Puerto Rico. After the comments were filed, the Commission heard oral argument.

The Commission has carefully considered the comments and arguments submitted, and the final rules promulgated herein have been drafted with these comments and arguments in mind. Comments and arguments not discussed herein have been considered and found not relevant or justified.

Initially, the Commission's authority to promulgate rules concerning audits has been challenged because, it is argued, section 43 confers rule-making authority on the Commission only with respect to the Shipping Act, 1916, and not in Intercoastal Shipping Act, 1933. We think this argument is without merit. Section 7 of the Intercoastal Shipping Act states:

> The provisions of the Shipping Act, 1916, as amended, shall in all respects, except as amended by this Act, continue to be applicable to every carrier subject to the provisions of this Act. [46 U.S.C. 847]

USNS POPE T-AP110

Title 46—SHIPPING

Chapter I—Coast Guard, Department of the Treasury

[CGFR 66-72]

WATER LIGHTS OF OPEN FLAME TYPE

Prohibition on Vessels Attending Offshore Petroleum Operations

The areas surrounding drilling rigs engaged in offshore petroleum operations may be exposed to or have in the immediate vicinity thereof flammable or explosive vapor mixtures. Under all circumstances it is desirable to reduce to a minimum the possibilities of fire or explosion. One means is to prohibit the use of water lights of an open flame type, such as a calcium-carbide light, to be provided with ring life buoys intended for emergency use when people are overboard. The National Offshore Advisory Panel to the Merchant Marine Council at its meeting held August 18, 1966, noted that a potentially dangerous situation existed in connection with offshore petroleum operations. Some vessels now attending drilling rigs are not tank vessels and therefore not subject to the prohibition concerning calcium-carbide water lights on tank vessels. These vessels not subject to the tank vessel regulations may have on board ring life buoys with water lights of an open flame type attached. Their officers and crewmembers may not realize nor recognize the potential hazards involved if such lights are used in an emergency or actuated for any reason. If a person falls into the water, the normal reaction is to use the lifesaving equipment available and intended for such use. If the water light attached to the ring life buoy happens to be one of an open flame type, its use introduces a dangerous fire hazard and may create a very serious casualty.

The prohibitions regarding the use of water lights of an open flame type on vessels attending offshore petroleum operations are in amendments designated 46 CFR 75.43-5(b), 75.43-90(a)(2), 94.43-5(b), 94.43-90(a)(2), and 180.30-1(b), as set forth in this document. Because of the potentially dangerous conditions which may arise if vessels attending offshore petroleum operations use or actuate water lights of an open flame type in areas surrounding drilling rigs, it is found that compliance with the Administrative Procedure Act (respecting notice of proposed rule making, public rule making procedures thereon, and effective date requirements) is contrary to the public interest with respect to the regulations in this document, and therefore are exempt from such requirements under the provisions of section 4 of that Act (5 U.S.C. 553).

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

A. Vessels attending offshore petroleum operation equipped with water lights of an open flame type shall replace such lights with approved electrical water lights manufactured pursuant to specifications in 46 CFR Subpart 161.001 as soon as practicable, but in no event later than July 1, 1967. On and after July 1, 1967, no vessel attending offshore petroleum operations is permitted to carry water lights which produce an open flame when used or actuated, and such lights shall be removed from the vessel.

B. For vessels attending offshore petroleum operations, the owners, operators, or agents are requested to bring to the attention of masters and crewmembers information about potential hazardous conditions which may develop if a fire or spark occurs, including the use of a calcium-carbide water light or any water light of an open flame type, when the vessel is in the area of drilling rigs where there may be flammable or explosive vapor mixtures present.

C. The regulation amendments in this document shall be effective on date of publication of this document in the FEDERAL REGISTER and 46 CFR Chapter I shall be amended as indicated in this document.

SUBCHAPTER H—PASSENGER VESSELS

PART 75—LIFESAVING EQUIPMENT

Subpart 75.43—Ring Life Buoys and Water Lights

1. Section 75.43-5(b) is amended to read as follows:

§ 75.43-5 General.

* * * * *

(b) All water lights shall be of an approved type, constructed in accordance with Subparts 160.012 or 161.001 of Subchapter Q (Specifications) of this chapter: *Provided*, That water lights which produce an open flame are not permitted and shall be removed from vessels attending offshore petroleum operations.

* * * * *

2. Section 75.43-90(a) is amended by adding a subparagraph (2) reading as follows:

§ 75.43-90 Vessels contracted for prior to May 26, 1965.

(a) * * *

(2) Any vessel attending offshore petroleum operations is not permitted to carry water lights which produce an open flame when used or actuated, and such lights shall be removed from the vessel.

(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, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp. 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 I—CARGO AND MISCELLANEOUS VESSELS

PART 94—LIFESAVING EQUIPMENT

Subpart 94.43—Ring Life Buoys and Water Lights

3. Section 94.43-5(b) is amended to read as follows:

§ 94.43-5 General.

* * * * *

(b) All water lights shall be of an approved type, constructed in accordance with Subparts 160.013 or 161.001 of Subchapter Q (Specifications) of this chapter: *Provided*, That water lights which produce an open flame are not permitted and shall be removed from vessels attending offshore petroleum operations.

* * * * *

4. Section 94.43-90(a) is amended by adding a subparagraph (2) reading as follows:

§ 94.43-90 Vessels contracted for prior to May 26, 1965.

(a) * * *

(2) Any vessel attending offshore petroleum operations is not permitted to carry water lights which produce an open flame when used or actuated, and such lights shall be removed from the vessel.

(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, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp. 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. 8357)

SUBCHAPTER T—SMALL PASSENGER VESSELS (UNDER 100 GROSS TONS)

PART 180—LIFESAVING EQUIPMENT

Subpart 180.30—Ring Life Buoys and Water Lights

5. Section 180.30-1 is amended by adding a paragraph (b) reading as follows:

§ 180.30-1 General.

* * * * *

(b) Any vessel attending offshore petroleum operations is not permitted to carry water lights which produce an open flame when used or actuated, and such lights shall be removed from the vessel.

(R.S. 4405, as mended, 4462, as amended, sec. 3, 70 Stat. 152; 46 U.S.C. 375, 416, 390b. Interpret or apply R.S. 4488, as amended; 46 U.S.C. 481. Treasury Department Orders 120, July 31, 1950, 15 F.R. 6521; 167-20, June 18, 1956, 21 F.R. 4894; 167-38, Oct. 26, 1959, 24 F.R. 8857).

Dated: January 9, 1967.

[SEAL] W. J. SMITH,
Admiral U.S. Coast Guard,
Commandant.

[F.R. Doc. 67-391; Filed, Jan. 12, 1967; 8:46 a.m.]

Subpart 76.13—Steam Smothering System, Details

§ 76.13–90 [Amended]

2. Section 76.13–90 *Installations contracted for prior to January 1, 1962* is amended by changing the heading for the fourth column in Table 76.13–90(b)(4) from "pipe size in each branch, inches" to "pipe size of each branch, inches".

Subpart 76.15—Carbon Dioxide Extinguishing Systems, Details

3. Section 76.15–5 is amended by adding at end thereof a new paragraph (f) reading as follows:

§ 76.15–5 Quantity, pipe sizes, and discharge rate.

* * * * *

(f) *Spaces specially suitable for vehicles.* (1) The number of pounds of carbon dioxide required shall be equal to the gross volume of the largest "tight" space divided by 22. In no case, however, shall it be less than that required by paragraph (c) of this section.

(2) The arrangement of valves and piping shall be such that the required quantity of carbon dioxide may be discharged into any "tight" space. The discharge of the required quantity of carbon dioxide shall be completed within 2 minutes.

(3) Except as noted in subparagraphs (1) and (2) of this paragraph, the requirements of paragraph (e) of this section shall apply.

§ 76.15–10 [Amended]

4. Section 76.15–40 *Pressure relief* is amended by changing in the first sentence of paragraph (a) the phrase from "tight compartment" to "tight compartments".

Subpart 76.50—Hand Portable Fire Extinguishers and Semiportable Fire Extinguishing Systems, Arrangements, and Details

§ 76.50–10 [Amended]

5. Section 76.50–10 *Location* is amended by revising Table 76.50–10(a) by inserting a reference to footnote "6" in the third column after the phrase "1 outside the space in the vicinity of exit" opposite the machinery spaces designated "Auxiliary spaces, internal combustion or gas turbine" in column one.

(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, 4420, 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, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp.; Treasury Dept. 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 77—VESSEL CONTROL AND MISCELLANEOUS SYSTEMS AND EQUIPMENT

Subpart 77.05—Electrical Engineering and Interior Communication Systems

1. Section 77.05–1 is amended by adding a new paragraph (b) reading as follows:

§ 77.05–1 Installation and details.

* * * * *

(b) Electrical equipment installed in spaces "specially suitable for vehicles" shall be in accordance with § 111.65–10 of Subchapter J (Electrical Engineering) of this chapter.

Subpart 77.27—Sounding Equipment

2. Section 77.27–1(a) is amended to read as follows:

§ 77.27–1 When required.

(a) All mechanically propelled vessels of 500 gross tons and over in ocean or coastwise service, and all mechanically propelled vessels of 500 gross tons and over in Great Lakes service certificated for service on the River St. Lawrence eastward of the lower exit of the St. Lambert Lock at Montreal, Canada, shall be fitted with an efficient mechanical or electronic deep-sea sounding apparatus and a deep-sea hand lead. All other mechanically propelled vessels of 1,500 gross tons and over in Great Lakes service shall carry a deep-sea hand lead.

(R.S. 4465, 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, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp. Treasury Dept. 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 78—OPERATIONS

Subpart 78.05—Notice to Mariners and Aids to Navigation

1. Section 78.05–1 is amended to read as follows:

§ 78.05–1 Duty of officers.

(a) Licensed deck officers are required to acquaint themselves with the latest information published by the Coast Guard and the U.S. Navy regarding aids to navigation. Neglect to do so is evidence of neglect of duty. It is desirable that all vessels have available in the pilothouse for convenient reference at all times a file of the applicable Notice to Mariners.

(b) Weekly Notices to Mariners (Great Lakes Edition), published by the Commander, 9th Coast Guard District, contain announcements and information on changes in aids to navigation and other marine information affecting the safety of navigation on the Great Lakes. These notices may be obtained free of charge, by making application to Commander, 9th Coast Guard District.

(c) Weekly Notices to Mariners (Part I, Atlantic and Mediterranean) are prepared jointly by the U.S. Coast Guard, the U.S. Coast and Geodetic Survey and the U.S. Naval Oceanographic Office. They include changes in aids to navigation in assembled form for the 1st, 3d, 5th, 7th, and 8th Coast Guard Districts and the Greater Antilles Section. Foreign marine information in the Atlantic and Mediterranean area is also included in these notices. These notices are available without charge from the U.S. Naval Oceanographic Office, Branch Oceanographic Offices and U.S. Collector of Customs of the major seaports in the United States and are also on file in the U.S. Consulates where they may be inspected.

(d) Weekly Notices to Mariners (Part II, Pacific and Indian Oceans) are prepared jointly by the U.S. Coast Guard, the U.S. Coast and Geodetic Survey and the U.S. Naval Oceanographic Office. They include changes in aids to navigation in assembled form for the 11th, 12th, 13th, 14th, and 17th Coast Guard Districts. Foreign marine information in the Pacific and Indian Oceans area is also included in these notices. These notices are available without charge from the U.S. Naval Oceanographic Office, Branch Oceanographic Offices and U.S. Collector of Customs of the major seaports in the United States and are also on file in the U.S. Consulates where they may be inspected.

Subpart 78.45—Display of Plans

2. Section 78.45–1(a)(1) is amended by adding requirements regarding cargo compartments specially suitable for vehicles so that it reads as follows:

§ 78.45–1 When required.

(a) * * *

(1) General arrangement plans showing for each deck the fire control stations, the various sections enclosed by fire-resisting bulkheads, the sections enclosed by fire-retarding bulkheads, together with particulars of the fire alarms, detecting systems, the sprinkler installation (if any), the fire extinguishing appliances, means of access to different compartments, decks, etc., and the ventilating systems including particulars of the master fan controls, the positions of dampers, the location of the remote means of stopping the fans, and identification numbers of the ventilating fans serving each section. If cargo compartments are "specially suitable for vehicles," they shall be so indicated on the plan. Alternatively, at the discretion of the Commandant, the aforementioned details may be set out in a booklet, a copy of which shall be supplied to each officer, and one copy at all times shall be available on board in an accessible position.

* * * * *

Subpart 78.47—Markings for Fire and Emergency Equipment, Etc.

3. Subpart 78.47 is amended by inserting after § 78.47-70 a new section reading as follows:

§ 78.47-75 Ventilation alarm failure.

(a) The alarm required by § 72.15-15 (c)(4) of this subchapter, which indicates the loss of required ventilation in spaces specially suitable for vehicles, shall be marked with a conspicuous sign in at least ¼-inch letters "VENTILATION FAILURE IN VEHICULAR SPACE."

§ 78.47-90 [Amended]

4. Section 78.47-90 *Vessels contracted for prior to November 19, 1952*, is amended by changing in paragraph (a)(1) the reference from "§§ 78.47-5 through 78.47-70" to "§§ 78.47-5 through 78.47-75."

5. Part 78 is amended by inserting after § 78.80-35 a new Subpart 78.83, consisting of § 78.83-1, reading as follows:

Subpart 78.83—Operation of Vehicles in Enclosed Locations

§ 78.83-1 Special operating conditions.

(a) The operation of self-propelled vehicles in enclosed locations (other than power-operated industrial trucks when subject to Subpart 78.80 of this part) shall be permitted only when the other conditions in this section have been met.

(b) Spaces exposed to carbon monoxide or other hazardous vapors from the exhausts of self-propelled vehicles shall have adequate ventilation. The concentration of carbon monoxide shall be kept below 100 parts per million in the holds and intermediate decks where persons are working.

(c) When necessary, portable blowers of adequate size shall be utilized and so located as to prevent concentrations of carbon monoxide which may be harmful to personnel.

(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, July 31, 1965, 30 F.R. 9671, 3 CFR 1965 Supp.; Treasury Dept. 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)

SUBCHAPTER I—CARGO AND MISCELLANEOUS VESSELS

PART 90—GENERAL PROVISIONS

Subpart 90.10—Definition of Terms Used in This Subchapter

Subpart 90.10 is amended by inserting after § 90.10-37 a new section reading as follows:

§ 90.10-38 Specially suitable for vehicles.

A space which is "specially suitable for vehicles" is one designed for the carriage of automobiles or other self-propelled vehicles with batteries connected and fuel tanks containing gasoline on vessels on ocean or unlimited coastwise voyages. Requirements for the design and protection of spaces "specially suitable for vehicles" appear in Subparts 92.15, 95.05, 95.15, 96.05, 97.36, 97.37, and 97.60 of this subchapter. In addition, preparation of automobiles prior to carriage, with the exception of disconnecting battery cables, must be in accordance with the applicable provisions of § 146.27-30 of Subchapter N (Dangerous Cargoes) of this chapter.

(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, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp.; Treasury Dept. 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)

PART 91—INSPECTION AND CERTIFICATION

Subpart 91.55—Plan Approval

Section 91.55-15(a)(3) is amended by revising subdivisions (i) and (ii) to read as follows:

§ 91.55-15 Procedure for submittal of plans.

(a) • • •

(3) • • •

(i) Commander, 3d Coast Guard District (mmt), Governor's Island, New York, N.Y. 10004, for the geographical area covered by 1st, 3d, and 5th Coast Guard Districts.

(ii) Commander, 8th Coast Guard District (mmt), Room 308, Customhouse, 423 Canal Street, New Orleans, La. 70130, for geographical area covered by 2d, 7th, and 8th Coast Guard Districts.

• • • • •

(R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416; Treasury Dept. Order 120, July 31, 1950, 15 F.R. 6521)

PART 92—CONSTRUCTION AND ARRANGEMENT

Subpart 92.15—Ventilation

1. Section 92.15-10 is amended by adding at end thereof new paragraphs (d) and (e) reading as follows:

§ 92.15-10 Ventilation for closed spaces.

• • • • •

(d) The ventilation of spaces which are "specially suitable for vehicles" shall be in accordance with the provisions of this paragraph. In addition, if vehicles are operated inside of enclosed spaces, the ventilation shall be in accordance with Subpart 97.60 of this subchapter.

(1) Areas below the weather deck shall be provided with continuous pressure-positive ventilation at each level on which vehicles are transported.

(2) The quantity of ventilating air shall be not less than 1 cubic foot per minute per square foot of deck area.

(3) The ventilation system shall be such as to prevent air stratification as well as to prevent the accumulation of air pockets.

(4) An alarm system shall be provided which will indicate the loss of required ventilation. The alarm location shall be in a normally manned space acceptable to the Commandant.

(e) For requirements regarding controls of electrically powered ventilation systems, see Subchapter J (Electrical Engineering) of this chapter.

Subpart 92.20—Accommodations for Officers and Crew

2. Section 92.20-55(a) is amended to read as follows:

§ 92.20-55 Insect screens.

(a) Except in such areas as are considered to be insect free, provisions shall be made to protect the crew quarters against the admission of insects. This may be accomplished by the fitting of suitable screens to ventilating skylights, air ports, ventilators, and doors to unscreened spaces and the open deck or by other methods. Insect screens are not required in air conditioned crew quarters for windows, air ports, and doors that are normally kept closed.

(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, 4489, 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. 392, 404, 481, 482, 395, 363, 367, 50 U.S.C. 198; E.O. 11239, July 31, 1965, 30 F.R. 9671, 3 CFR 1965 Supp.; Treasury Dept. 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 94—LIFESAVING EQUIPMENT

Subpart 94.40—Life Preservers

1. Section 94.40-10 is amended by revising paragraphs (a) and (c) to read as follows:

§ 94.40-10 Number required.

(a) Except as specifically modified by paragraph (b) of this section, all vessels shall be provided with an approved life preserver for each person on board. An additional number of life preservers shall be provided for the personnel on watch in the engineroom and pilothouse, and at the bow lookout.

• • • • •

(c) When children are carried, a suitable number of children's life preservers shall be provided.

2. Section 94.40-15(a)(1) is amended to read as follows:

§ 94.40-15 Distribution and stowage.

(a) *Distribution.* (1) Life preservers shall be distributed throughout the cabins, staterooms, berths, and other places convenient for each person board. The stowage of the additio

number of life preservers required by § 91.50-70(a) shall be such that they are readily accessible to personnel on watch in the engineroom and pilothouse, and at the bow lookout.

* * * * *

(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, 63 Stat. 675; 46 U.S.C. 391, 392, 404, 481, 489, 395, 363, 367, 526p, 50 U.S.C. 198; E.O. 11239, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp.; Treasury Dept. 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 95—FIRE PROTECTION EQUIPMENT

Subpart 95.05—Fire Detecting and Extinguishing Equipment, Where Required

1. 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 not required except in special cases; but if installed, the 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.

(c) Enclosed spaces which are "specially suitable for vehicles" shall be fitted with an approved fire or smoke detecting system.

2. Section 95.05-10(b) is amended by adding at end thereof a new subparagraph (4) reading as follows:

§ 95.05-10 Fixed fire extinguishing systems.

* * * * *

(b) * * *

(4) Spaces "specially suitable for vehicles" shall be fitted with an approved carbon dioxide system. Alternately, the Commandant may permit the installation of an approved water sprinkler system or other suitable system.

* * * * *

Subpart 95.10—Fire Main System, Details

§ 95.10-5 [Amended]

3. Section 95.10-5 *Fire pumps* is amended in paragraph (b) by changing the reference from "paragraph (c) of this paragraph" to "paragraph (c) of this section."

Subpart 95.15—Carbon Dioxide Extinguishing Systems, Details

4. Section 95.15-5 is amended by adding at end thereof a new paragraph (f) reading as follows:

§ 95.15-5 Quantity, pipe sizes, and discharge rates.

* * * * *

(f) *Spaces specially suitable for vehicles.* (1) The number of pounds of carbon dioxide required shall be equal to the gross volume of the largest "tight" space divided by 22. In no case, however, shall the quantity be less than that required by paragraph (c)(2) of this section.

(2) The arrangement of valves and piping shall be such that the required quantity of carbon dioxide may be discharged into any "tight" space. The discharge of the required quantity of carbon dioxide shall be completed within 2 minutes.

(3) Except as noted in subparagraphs (1) and (2) of this paragraph, the requirements of paragraph (c) of this section shall apply.

(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, 63 Stat. 675; 46 U.S.C. 391, 392, 404, 481, 395, 363, 367, 526p, 50 U.S.C. 198; E.O. 11239, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp.; Treasury Dept. 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 96—VESSEL CONTROL AND MISCELLANEOUS SYSTEMS AND EQUIPMENT

Subpart 96.05—Electrical Engineering and Interior Communications Systems

1. Section 96.05-1 is amended by adding a new paragraph (b) reading as follows:

§ 96.05-1 Installation and details.

* * * * *

(b) Electrical equipment installed in spaces "specially suitable for vehicles" shall be in accordance with § 111.65-10 of Subchapter J (Electrical Engineering) of this chapter.

Subpart 96.17—Navigation Lights and Shapes [Canceled]

2. Subpart 96.17, consisting of § 96.17-1, is canceled.

§ 96.17-1 [Canceled]

3. Section 96.17-1 *When required* is canceled.

Subpart 96.20—Navigation Lights and Shapes, Whistles, Foghorns, Fog Bells, and Gongs

4. The heading for Subpart 96.20 is amended to read as set forth above.

5. Section 96.20-1 is amended to read as follows:

§ 96.20-1 Vessels operating on waters governed by the International Rules of the Road.

(a) All vessels (including motorboats) operating on waters governed by the International Rules of the Road (33 U.S.C. 1051-1093) shall be equipped with the navigation lights and shapes, whistles, foghorns, fog bells, and gongs, as required by those rules.

§ 96.20-5 [Amended]

6. Section 96.20-5 *Motorboats operating on the high seas* is canceled.

7. Section 96.20-10 is amended to read as follows:

§ 96.20-10 Vessels operating on waters governed by the Inland, Great Lakes or Western Rivers Rules of the Road.

(a) All vessels other than motorboats operating on waters governed by the Inland, Great Lakes or Western Rivers Rules of the Road (33 U.S.C. 154-232, 241-295, 301-355) shall be equipped with the navigation lights and shapes, whistles, foghorns, fog bells, and gongs as required by the Rules of the Road applicable to the waters on which the vessel is being navigated.

(b) All motorboats operating on waters governed by the Inland, Great Lakes or Western Rivers Rules of the Road shall be equipped with the following:

(1) Navigation lights as set forth in the Motorboat Act of April 25, 1940, as amended (46 U.S.C. 526-526u), or, in lieu thereof, the lights required by the International Rules of the Road.

(2) An efficient whistle or other sound producing mechanical device as set forth in Table 96.20-10(b)(2).

TABLE 96.20-10(b)(2)

Class of motorboat	Type of device
A (less than 16 feet in length)	None required by law.
1 (16 feet and over, and less than 26 feet in length)	Mouth, hand, or power operated, capable of producing a blast of 2 seconds or more duration, and audible for at least one-half mile.
2 (26 feet and over, and less than 40 feet in length)	Hand or power operated, capable of producing a blast of 2 seconds or more duration, and audible for a distance of at least 1 mile.
3 (40 feet and over, and not over 65 feet in length)	Power operated, capable of producing a blast of 2 seconds or more duration, and audible for a distance of at least 1 mile.

(3) An efficient fog bell, except that motorboats of less than 26 feet in length need not carry such a bell.

Subpart 96.23—Foghorns [Canceled]

8. Subpart 96.23, consisting of §§ 96.23-1 and 96.23-5, is canceled.

§ 96.23-1 [Canceled]

9. Section 96.23-1 *Vessels other than motorboats* is canceled.

§ 96.23-5 [Canceled]

10. Section 96.23-5 *Motorboats* is canceled.

Subpart 96.25—Fog Sound Signal Devices [Canceled]

11. Subpart 96.25, consisting of §§ 96.25-1 to 96.25-10, inclusive, is canceled.

§ 96.25-1 [Canceled]

12. Section 96.25-1 *Vessels other than motorboats* is canceled.

§ 96.25–5 [Canceled]

13. Section 96.25–5 *Motorboats operating on the high seas* is canceled.

§ 96.25–10 [Canceled]

14. Section 96.25–10 *Motorboats operating on the navigable waters of the United States* is canceled.

Subpart 96.27—Sounding Equipment

15. Section 96.27–1(a) is amended to read as follows:

§ 96.27–1 When required.

(a) All mechanically propelled vessels of 500 gross tons and over in ocean or coastwise service and all mechanically propelled vessels of 500 gross tons and over in Great Lakes service and certificated for service on the River St. Lawrence eastward of the lower exit of the St. Lambert Lock at Montreal, Canada, shall be fitted with an efficient mechanical or electronic deep-sea sounding apparatus and a deep-sea hand lead. All other mechanically propelled vessels of 1,500 gross tons and over in Great Lakes service shall carry a deep-sea hand lead.

(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, [illegible] as amended, sec. 10, 35 Stat. 428, as amended, 41 Stat. [illegible] as amended, secs. 1, 2, [illegible] 1544, 1545, as amended, sec. 3, 68 Stat. [illegible]; 46 U.S.C. [illegible], 392, 404, 481, 489, 395, [illegible]; 50 U.S.C. [illegible]; E.O. 11239, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp.; Treasury Dept. Orders 120, July 31, 1950, 15 F.R. 6521; 167–14, Nov. 26, 1954, 19 F.R. 8026; CGFR 56–[illegible], July 24, 1956, 21 F.R. 5659; 167–38, Oct. 26, 1959, 24 F.R. [illegible])

PART 97—OPERATIONS

Subpart 97.05—Notice to Mariners and Aids to Navigation

1. Section 97.05–1 is amended to read as follows:

§ 97.05–1 Duty of officers.

(a) Licensed deck officers are required to acquaint themselves with the latest information published by the Coast Guard and the U.S. Navy regarding aids to navigation. Neglect to do so is evidence of neglect of duty. It is desirable that vessels other than motorboats shall have available in the pilothouse for convenient reference at all times a file of the applicable Notice to Mariners.

(b) Weekly Notices to Mariners (Great Lakes Edition), published by the Commander, 9th Coast Guard District, contain announcements and information on changes in aids to navigation and other marine information affecting the safety of navigation on the Great Lakes. These notices may be obtained free of charge, by making application to Commander, 9th Coast Guard District.

(c) Weekly Notices to Mariners (Part I, Atlantic and Mediterranean) are prepared jointly by the U.S. Coast Guard, the U.S. Coast and Geodetic Survey and the U.S. Naval Oceanographic Office. They include changes in aids to navigation in assembled form for the 1st, 3d, 5th, 7th, and 8th Coast Guard Districts and the Greater Antilles Section. Foreign marine information in the Atlantic and Mediterranean area is also included in these notices. These notices are available without charge from the U.S. Naval Oceanographic Office, Branch Oceanographic Offices and U.S. Collector of Customs of the major seaports in the United States and are also on file in the United States Consulates where they may be inspected.

(d) Weekly Notices to Mariners (Part II, Pacific and Indian Oceans) are prepared jointly by the U.S. Coast Guard, the U.S. Coast and Geodetic Survey and the U.S. Naval Oceanographic Office. They include changes in aids to navigation in assembled form for the 11th, 12th, 13th, 14th, and 17th Coast Guard Districts. Foreign marine information in the Pacific and Indian Oceans area is also included in these notices. These notices are available without charge from the U.S. Naval Oceanographic Office, Branch Oceanographic Offices and U.S. Collector of Customs of the major seaports in the United States and are also on file in the U.S. Consulates where they may be inspected.

Subpart 97.12—Cargo Stowage

§ 97.12–5 [Amended]

[illegible] 97.12–5 *Manual* is amended [illegible] the date of the manual from [illegible], and by revising footnote [illegible] this date to read "Copies of the manual are on file at Coast Guard Headquarters and with the various Coast Guard District Commanders for reference [illegible]."

Subpart 97.36—Display of Plans

[illegible] 97.36–1(a) is amended to [illegible]:

§ 97.36–1 When required.

[illegible] with sleeping accommodations [illegible] than six persons and all [illegible] vessels shall have permanently exhibited for the guidance of the [illegible] in charge of the vessel, general arrangement plans showing for each [illegible] the various fire-retardant bulkheads, together with particulars of the [illegible], manual alarm and fire [illegible] systems, fire doors, means of access to the different compartments, [illegible] ventilating systems including [illegible] of the dampers, the location [illegible] means of stopping the fans, identification of the fans serving [illegible]. If cargo compartments [illegible] specially suitable for vehicles," they [illegible] indicated on the plan.

Subpart 97.37—Markings for Fire and Emergency Equipment, Etc.

§ 97.37–40 [Amended]

[illegible] Section 97.37–40 *Liferafts, lifefloats and buoyant apparatus* is amended in [illegible] (b) by changing the phrase [illegible] rigid type liferaft, lifefloat and [illegible] apparatus" to "rigid type liferaft, lifefloat, and buoyant apparatus".

[illegible] Subpart 97.37 is amended by inserting after § 97.37–47 a new section reading as follows:

§ 97.37–50 Ventilation alarm failure.

(a) The alarm required by § 92.15–10(d)(4) of this subchapter, which indicates the loss of required ventilation in spaces specially suitable for vehicles shall be marked with a conspicuous sign in at least ¼-inch letters "VENTILATION FAILURE IN VEHICULAR SPACE."

§ 97.37–90 [Amended]

6. Section 97.37–90 *Vessels contracted for prior to November 19, 1952,* is amended by revising in paragraph (a)(1) the reference from "§§ 97.37–5 through 97.37–47" to "§§ 97.37–5 through 97.37–50."

7. Part 97 is amended by adding after § 97.75–1 a new Subpart 97.80, consisting of § 97.80–1, reading as follows:

Subpart 97.80—Operation of Vehicles in Enclosed Locations

§ 97.80–1 Special operating conditions.

(a) The operation of [illegible] propelled vehicles in enclosed locations other than power-operated industrial trucks when subject to Subpart 97.70 of this part shall be permitted only when the other conditions in this section have been met.

(b) Spaces exposed to carbon monoxide or other hazardous [illegible] from the exhausts of [illegible] vehicles shall have adequate ventilation. The concentration of carbon monoxide shall be kept below 100 parts per million [illegible] the holds and intermediate decks where persons are working.

(c) When necessary portable blowers of adequate size shall be utilized and so located as to prevent concentrations of carbon monoxide which may be harmful to persons.

(R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4417, as amended, [illegible] as amended, 4426, as amended, [illegible] sec. 10, 35 Stat. 428, as amended, [illegible] 305, as amended, secs. 1, 2, 4, [illegible] 1544, 1545, as amended, sec. 3, [illegible] 46 U.S.C. 391, 392, 404, 435, 395, [illegible] 198; E.O. 11239, July 31, 1965, [illegible] 3 CFR, 1965 Supp.; Treasury [illegible] July 31, 1950, 15 F.R. [illegible] to F.R. 8026, CGFR [illegible] F.R. 5659,

PART 98—SPECIAL CONSTRUCTION, ARRANGEMENT, AND PROVISIONS FOR CERTAIN DANGEROUS CARGOES IN BULK

Subpart 98.01—Application

1. Section 98.01–5 is amended by adding a new paragraph (d) reading as follows:

§ 98.01–5 Effective date.

[illegible]

(d) The provisions of Subpart 98.18 of this part relating to phosphoric acid in bulk shall be effective on and after January 1, 1967.

2. Part 98 is amended by inserting [illegible] a new Subpart 98.18, consisting of §§ 98.18–1 to 98.18–50, inclusive, reading as follows:

Capacitance vs. Voltage, C Group

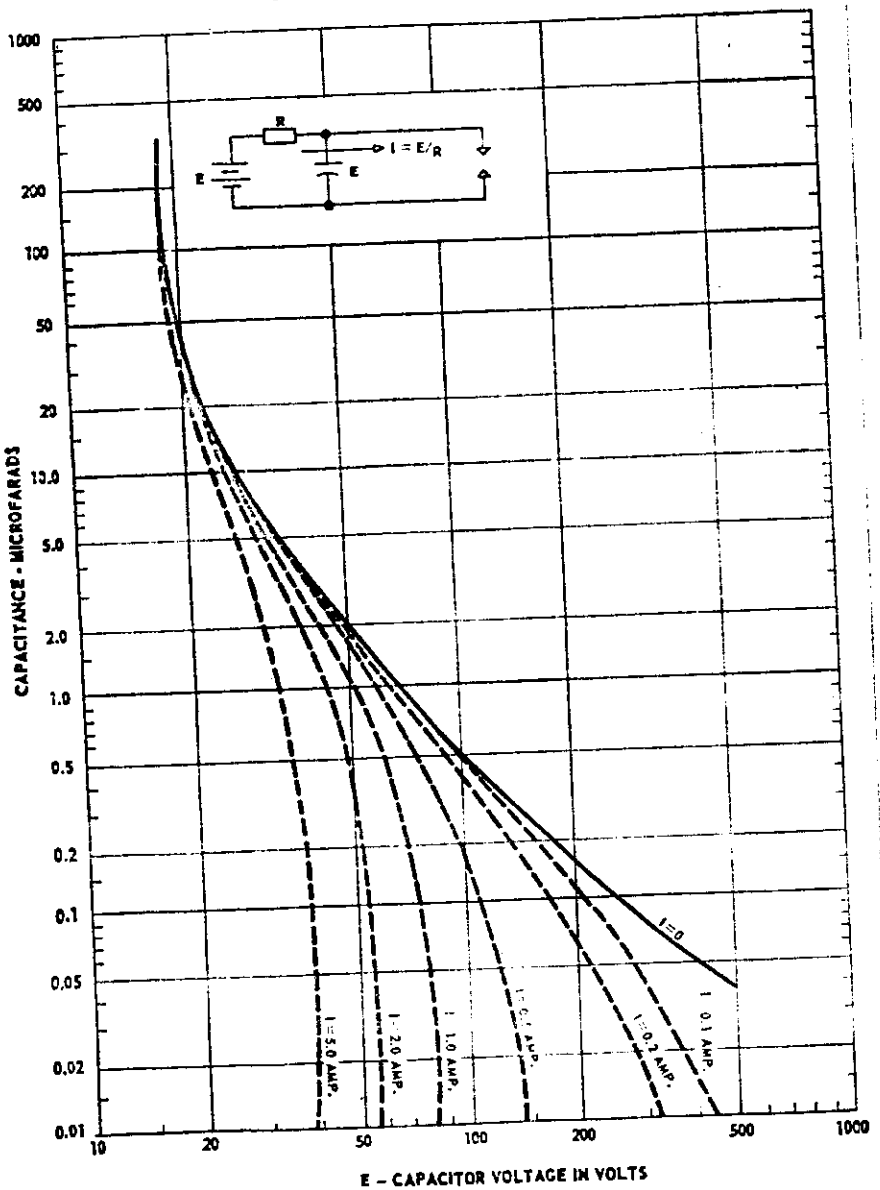

FIGURE 111.65–3(d)(3)(v)

Capacitance vs. Voltage, D Group

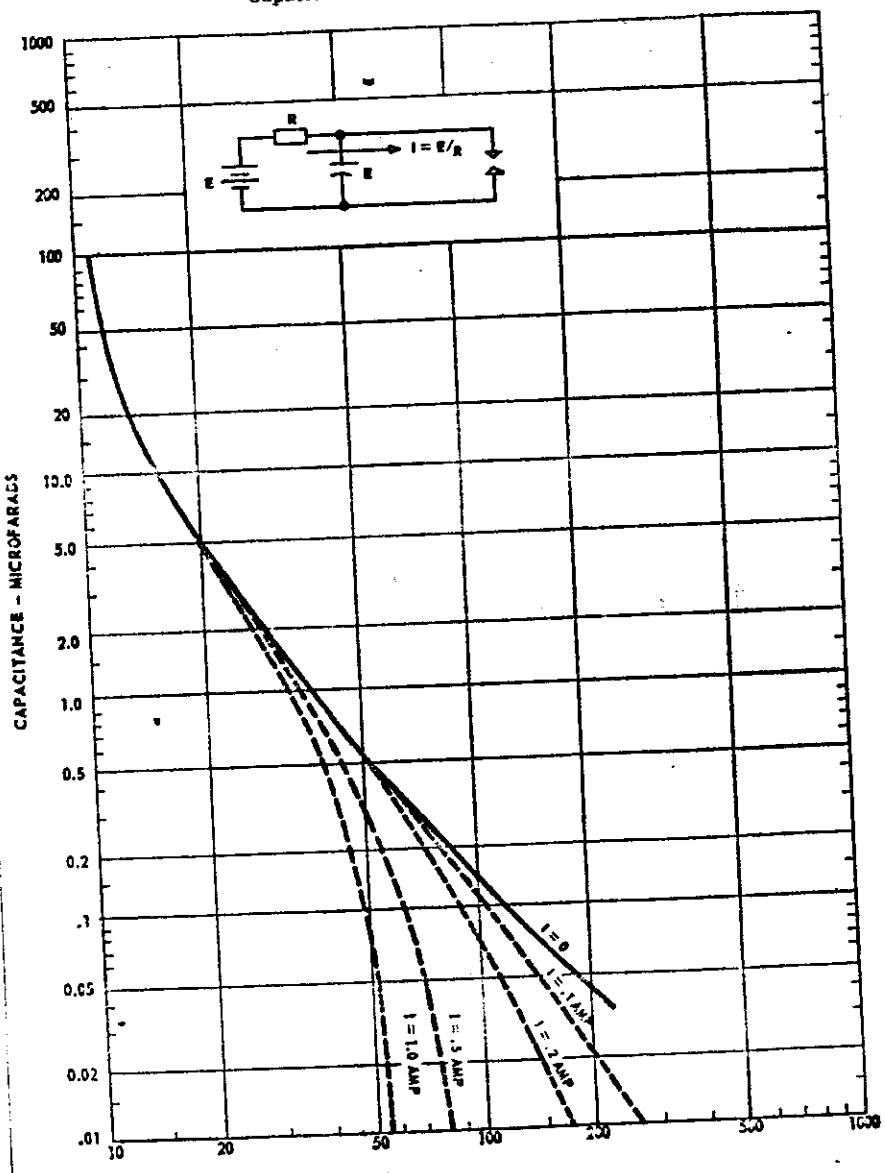

FIGURE 111.65–3(d)(3)(vi)

(e) *Testing requirements.* (1) Tests conducted for purposes of compliance with subparagraph (d)(1) of this section shall experimentally determine whether or not the most ignitible gas involved can be ignited as a result of any possible function, malfunction, or failure of the component concerned.

(2) Independent laboratories that are acceptable to the Commandant shall perform the required tests in accordance with a testing procedure approved by the Commandant. The original and 3 copies of the laboratory test report shall be submitted to the Commandant (without cost to the Coast Guard) directly by the laboratory, and one copy will be forwarded to the manufacturer when he is advised of the Commandant's actions taken under this section. The independent laboratory shall inform the Commandant in advance when designated tests will be performed so that a marine inspector may be present.

(f) *Wiring installation.* The wiring installation for the intrinsically safe section of each approved installation shall comply with Subpart 111.60 of this part except where exempted by this subpart and:

(1) The cable insulation shall be compatible with the liquid or vapor to which it may be exposed; and,

(2) The intrinsically safe conductors shall be separated from all other conductors to insure that the intrinsically safe circuit is not compromised by becoming energized by other conductors through damage or failure of insulation or by induction from other sources.

14. Section 111.65–10 is amended to read as follows:

§ 111.65–10 Special requirements for locations where gasoline or other highly volatile motor fuel is carried in vehicles.

(a) *Application.* The provisions of this section are applicable to spaces which are "specially suitable for vehicles" as defined in § 70.10–44 in Subchapter H (Passenger Vessels) and § 90.10–38 in Subchapter I (Cargo and Miscellaneous Vessels) of this chapter. Electrical requirements for spaces other than those "specially suitable for vehicles" are contained in § 146.27–30 of Subchapter N (Dangerous Cargoes) of this chapter.

(b) *General requirements.* Electrical equipment which tends to produce arcs or sparks, such as cutouts, switches, receptacles, lampholders, generators, motors, or other equipment having make-or-break or sliding contacts, when installed within 18 inches of the deck, shall be of a type approved for Class I, Group D locations, in accordance with § 111.60–40(b). Electrical equipment installed at or over 18 inches above the deck shall be of the totally enclosed type or drip-proof protected equipment provided with suitable guards or screens to prevent escape of sparks or hot metal particles.

Subpart 111.70—Special Requirements for Tank Vessels

15. Section 111.70–5(h) is amended to read as follows:

§ 111.70–5 Definitions.

* * * * *

(h) *Liquefied flammable gas—TB/ALL.* The term "liquefied flammable gas" means any flammable gas having a Reid[1] vapor pressure exceeding 40 pounds, which has been liquefied.

* * * * *

16. Section 111.70–10 is amended by revising subparagraphs (3) and (4) in paragraph (c) to read as follows:

§ 111.70–10 Special requirements for tank vessels contracted for on or after November 19, 1955—TB/ALL.

* * * * *

(c) *Installation requirements on tank vessels handling Grade A, B, C or D liquid cargo.* * * *

(3) *Cable.* Through runs of electric cable, regardless of how they may be protected, are prohibited in cargo pumprooms, except where permitted by § 111.65–3. In any enclosed space immediately above or adjacent to cargo tanks other than cargo pumprooms, through runs of electric cable are permitted.

(4) *Weather decks.* Motors, their control equipment, and other electrical equipment and installations located on or above the weather decks within 10 feet of the cargo tank openings, cargo pumproom doors or ventilation outlets, or cargo tank vent terminations shall be explosionproof. Explosionproof equipment installed in locations exposed to the weather shall be waterproof or shall be enclosed in watertight housings, or protected against the entrance of water by other approved means.

(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, 70 Stat. 152, sec. 3, 63 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, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp.; Treasury Dept. 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 113—COMMUNICATION AND ALARM SYSTEMS AND EQUIPMENT

Subpart 113.25—General Alarm Systems

1. Section 113.25–10 is amended by revising subdivision (ii) in subparagraph (3) and subparagraph (5) in paragraph (a) to read as follows:

§ 113.25–10 General requirements.

(a) *Power supply.* * * *

(3) * * *

(ii) Duplicate storage batteries so connected, in combination with a manual two-position transfer switch (having no OFF position), that one battery will be charged while the other battery is available for furnishing power to the system. Control, indicator, and alarm loads may be supplied from these batteries. Each of the two storage batteries shall have sufficient capacity to supply the general alarm system continuously for a period of at least 4 hours and to supply all other connected loads at maximum expected demand for a period of at least 8 hours without being recharged;

* * * * *

(5) When the general alarm system is supplied from an emergency or interior communication switchboard, or when the duplicate general alarm batteries supply other loads as permitted by subdivision (3)(ii) of this paragraph, the fused switch or circuit breaker supplying the general alarm system shall have provisions for locking to prevent unauthorized operation of the switch or circuit breaker and unauthorized tampering with the fuses.

* * * * *

(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, 70 Stat. 152, sec. 3, 63 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, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp.; Treasury Dept. 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 P—MANNING OF VESSELS

PART 157—MANNING REQUIREMENTS

Subpart 157.30—Special Provisions

1. Section 157.30–10 is amended to read as follows:

§ 157.30–10 Officers for uninspected vessels.

(a) For the purpose of this section and R.S. 4438a, as amended (46 U.S.C. 224a), the definitions of the following expressions, which are the same as those set forth in Article 2 of the Officers' Competency Certificates Convention, 1936, are:

(1) "Master" means any person having command or charge of a vessel.

(2) "Navigating officer in charge of the watch" means any person, other than a pilot, who is for the time being actually in charge of the navigation or manoeuvering of a vessel.

[1] American Society for Testing Materials Standard D–323 (most recent revision), Method of Test for Vapor Pressure of Petroleum Products (Reid Method).

(3) "Chief engineer" means any person permanently responsible for the mechanical propulsion of a vessel.

(4) "Engineer officer in charge of the watch" means any person who is for the time being actually in charge of the running of a vessel's engines.

(b) Every vessel, however propelled, 200 gross tons or over and navigating the high seas and subject to the provisions of R.S. 4438a, as amended (46 U.S.C. 224a), shall have officers licensed by the Coast Guard. No person shall be engaged to perform or shall perform on board any such vessel the duties of master, chief engineer, navigating officer in charge of the watch, or engineer officer in charge of the watch unless he holds a valid license issued by the Coast Guard attesting to his qualifications to perform such duties.

(c) The phrase "* * * no person shall be engaged to perform, or shall perform on board any vessel to which this section applies, the duties of master, mate, chief engineer, or assistant engineer, unless he holds a license to perform such duties * * *" in subsection (4) of R.S. 4438a, as amended (46 U.S.C. 224a), shall be construed to mean that an uninspected vessel shall be manned as provided in this paragraph.

(1) If an uninspected vessel engages on a voyage of 12 hours or less, such vessel shall have a master and chief engineer in charge of the watch continuously. If desired, a mate may serve as navigating officer in charge of the watch as a relief for the master. If desired, an assistant engineer may serve as the engineer officer in charge of the watch as a relief for the chief engineer.

(2) If an uninspected vessel engages on a voyage of over 12 hours duration, such vessel shall have a master, mate, chief engineer, and assistant engineer and such officers shall be in charge of their respective watches continuously, except as permitted otherwise by this subparagraph. An uninspected vessel which is equipped with full pilothouse control of the propulsion machinery, thus eliminating the necessity for a continuous engineroom watch, will not be deemed to be in violation of R.S. 4438a, as amended (46 U.S.C. 224a), when manned with an appropriately licensed master and mate who shall be in charge of their respective watches continuously, and an appropriately licensed chief engineer.

(R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. Interpret or apply R.S. 4438a, as amended; 46 U.S.C. 224a; Treasury Dept. Order 120, July 31, 1950, 15 F.R. 6521)

SUBCHAPTER Q—SPECIFICATIONS

PART 160—LIFESAVING EQUIPMENT

Subpart 160.001—Life Preservers, General

1. Section 160.001–2 is amended to read as follows:

§ 160.001–2 General characteristics of life preservers.

(a) A life preserver shall be of such construction, material and workmanship that it can perform its intended function in all weathers and at all temperatures which may be expected in the normal usage of such life preserver. No more metal or other such nonbuoyant materials shall be used than is reasonably necessary in the construction of a life preserver.

(b) A life preserver shall be capable of supporting in fresh water for 48 hours a minimum of 16.5 pounds.

(c) Life preservers the buoyancy of which depends upon air compartments, inflation, or loose granulated material are prohibited.

(d) A life preserver shall be simple in design, reversible, and capable of being quickly adjusted for secure fit to the body of a wearer of the size for which it is intended.

(e) A life preserver shall support the wearer in the water in an upright or slightly backward position, and shall provide support to the head so that the face of an unconscious or exhausted person is held above the water.

(f) A life preserver shall be capable of turning the wearer, upon entering the water, to a safe flotation position as described in paragraph (e) of this section.

(g) A life preserver shall not be appreciably deteriorated or rendered unable to perform its intended function by common oils or oil products.

(h) A life preserver shall be of a highly visible color, such as Indian Orange, International Orange, or Scarlet Munsell Red.

(i) A life preserver shall be of such construction, materials, and workmanship as to be at least equivalent to a standard type life preserver described in detail by other subparts in this part.

(R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. 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, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp.; Treasury Dept. 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

2. Section 160.012–5(a) is amended to read as follows:

§ 160.012–5 Marking.

(a) The cylinder shall be legibly marked by embossing at its top end the words "TOP—ATTACH THIS END TO SHIP" and the year of manufacture. The cylinder shall be legibly marked by embossing the cylindrical shell with the brand name of the light, the words "SELF-IGNITING WATER LIGHT", the name and address of the manufacturer, and the Coast Guard approval number assigned to the device. The bottom of the water light shall be marked "BOTTOM—ATTACH THIS END TO RING LIFE BUOY".

* * * * *

3. Section 160.012–6 is amended by adding a paragraph (b) reading as follows:

§ 160.012–6 Packing.

* * * * *

(b) Instructions for securing the water light to the vessel and to the ring life buoy shall be included in the shipping container. This instruction shall show how to attach the device so that its weight is not supported by the top ring, and still allow its proper operation.

4. Section 160.012–7(b) is amended to read as follows:

§ 160.012–7 Procedure for approval.

* * * * *

(b) *Manufacturer's plans and specifications.* In order to obtain approval of self-igniting water lights, submit detailed plans and specifications including a complete bill of material, assembly drawing, parts drawings descriptive of the arrangement and construction of the device, and instructions for installation, 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 device; and the general arrangement or assembly drawing shall include a list of all drawings applicable, together with drawing numbers and alteration numbers. At the time of selection of the preapproval sample, the manufacturer shall furnish to the inspector four copies of all plans and specifications, corrected as may be required, for forwarding to the Commandant.

* * * * *

(R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416. 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, section 3, 68 Stat. 675; 46 U.S.C. 404, 481, 489, 367, 1333, 50 U.S.C. 198; E.O. 11239, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp.; Treasury Dept. 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 160.051—Inflatable Liferafts

§ 160.051–8 [Amended]

5. Section 160.051–8 is amended by changing the phrase in the first sentence of paragraph (a) from "inflatable liferaft container" to "inflatable liferaft and container".

§ 160.051–9 [Amended]

6. Section 160.051–9 *Procedure for approval* is amended by revising the reference in the last sentence of paragraph (b) from "§ 160.051–5(e) (1) through (11)" to "§ 160.051–5(e) (1) through (12)".

(R.S. 4405, as amended, 4462, as amended; 46 U.S.C. 375, 416; Treasury Dept. Order 120, July 31, 1950, 15 F.R. 6521)

SUBCHAPTER R—NAUTICAL SCHOOLS

PART 167—PUBLIC NAUTICAL SCHOOL SHIPS

Subpart 167.15—Inspections

1. Subpart 167.15 is amended by inserting after § 167.15–25 a new § 167.15–30 reading as follows:

§ 167.15–30 Drydocking.

(a) Except for extensions as authorized by the Commandant, all vessels shall be drydocked or hauled out and made available for examination, and shall be examined by a marine inspector within the periods set forth in this paragraph, depending upon the service.

(1) Each vessel shall be drydocked or hauled out at intervals not to exceed 24 months if it is in salt water a total of more than 12 months in the 24-month period since it was last drydocked or hauled out.

(2) Each vessel shall be drydocked or hauled out at intervals not to exceed 36 months if it is in salt water less than 12 months in the first 24-month period since it was last drydocked or hauled out.

(3) Each vessel shall be drydocked or hauled out at intervals not to exceed 60 months if it operates exclusively in fresh water.

(b) The master, owner, or agent shall notify the Officer in Charge, Marine Inspection, at any time a vessel is to be placed on drydock or hauled out in order that an examination of the underwater portion of the vessel may be made if deemed necessary.

2. Section 167.15–50 is amended to read as follows:

§ 167.15–50 Tail shaft examination.

The outboard shaft or shafts on every nautical school ship shall be drawn for examination once at least in every 4 years: *Provided*, That, if the circumstances warrant it, the Coast Guard District Commander may extend this time to the next regular drydocking period, not to exceed 4 months.

Subpart 167.65—Special Operating Requirements

3. Section 167.65–45 is amended to read as follows:

§ 167.65–45 Notice to mariners; aids to navigation.

(a) Officers are required to acquaint themselves with the latest information published by the Coast Guard and the U.S. Navy regarding aids to navigation, and neglect to do so is evidence of neglect of duty. It is desirable that nautical school ships navigating oceans and coastwise and Great Lakes waters shall have available in the pilothouse for convenient reference at all times a file of the applicable Notice to Mariners.

(b) Weekly Notices to Mariners (Great Lakes Edition), published by the Commander, 9th Coast Guard District, contain announcements and information on changes in aids to navigation and other marine information affecting the safety of navigation on the Great Lakes. These notices may be obtained free of charge, by making application to Commander, 9th Coast Guard District.

(c) Weekly Notices to Mariners (Part I, Atlantic and Mediterranean) are prepared jointly by the U.S. Coast Guard, the U.S. Coast and Geodetic Survey and the U.S. Naval Oceanographic Office. They include changes in aids to navigation in assembled form for the 1st, 3d, 5th, 7th, and 8th Coast Guard Districts and the Greater Antilles Section. Foreign marine information in the Atlantic and Mediterranean area is also included in these notices. These notices are available without charge from the U.S. Naval Oceanographic Office, Branch Oceanographic Offices and U.S. Collector of Customs of the major seaports in the United States and are also on file in the U.S. Consulates where they may be inspected.

(d) Weekly Notices to Mariners (Part II, Pacific and Indian Oceans) are prepared jointly by the U.S. Coast Guard, the U.S. Coast and Geodetic Survey and the U.S. Naval Oceanographic Office. They include changes in aids to navigation in assembled form for the 11th, 12th, 13th, 14th, and 17th Coast Guard Districts. Foreign marine information in the Pacific and Indian Oceans area is also included in these notices. These notices are available without charge from the U.S. Naval Oceanographic Office, Branch Oceanographic Offices and U.S. Collector of Customs of the major seaports in the United States and are also on file in the U.S. Consulates where they may be inspected.

(e) All nautical school ships shall have charts of the waters on which they operate available for convenient reference at all times.

(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, 40 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, 363, 367, 390b, 50 U.S.C. 198, 33 U.S.C. 1007; E.O. 11239, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp.; Treasury Dept. 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. 5650; 167–38, Oct. 26, 1959, 24 F.R. 8857; 167–46, Nov. 6, 1961, 26 F.R. 10609)

SUBCHAPTER T—SMALL PASSENGER VESSELS (UNDER 100 GROSS TONS)

PART 176—INSPECTION AND CERTIFICATION

Subpart 176.25—Materiel Inspections

1. Table 176.25–25(a)(2) in § 176.25–25(a)(2) is amended by canceling obsolete material regarding "vaporizing liquid" so this table reads as follows:

§ 176.25–25 Fire extinguishing equipment—S.

(a) • • •

(2) • • •

TABLE 176.25–25(a)(2)

Type unit	Test
Soda acid	Discharge. Clean hose and inside of extinguisher thoroughly. Recharge.
Foam	Discharge. Clean hose and inside of extinguisher thoroughly. Recharge.
Pump tank (water or antifreeze).	Discharge. Clean hose and inside of extinguisher thoroughly. Recharge with clean water or antifreeze.
Cartridge operated (water, antifreeze or loaded stream).	Examine pressure cartridge and replace if end is punctured or if cartridge is otherwise determined to have leaked or to be in unsuitable condition. Remove liquid, clean hose and inside of extinguisher thoroughly. Recharge with clean water, solution, or antifreeze. Insert charged cartridge.
Carbon dioxide	Weigh cylinders. Recharge if weight loss exceeds 10 percent of weight of charge. Inspect hose and nozzle to be sure they are clear.
Dry chemical (cartridge-operated type).	Examine pressure cartridge and replace if end is punctured or if cartridge is otherwise determined to have leaked or to be in unsuitable condition. Inspect hose and nozzle to see if they are clear. Insert charged cartridge. Be sure dry chemical is free-flowing (not caked) and chamber contains full charge.
Dry chemical (stored pressure type).	See that pressure gage is in operating range. If not, or if seal is broken, weigh or otherwise determine that full charge of dry chemical is in extinguisher. Recharge if pressure is low or if dry chemical is needed.

• • • • •

(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, 4464, as amended, 4472, as amended, 4488, as amended, 4491, as amended; 46 U.S.C. 391, 392, 399, 404, 435, 451, 170, 481, 489; Treasury Dept. 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, Oct. 26, 1959, 24 F.R. 8857)

PART 181—FIRE PROTECTION EQUIPMENT

Subpart 181.01—Application and Intent

1. Section 181.01–5(a) is amended to read as follows:

§ 181.01–5 Intent.

(a) The intent of this part is to insure that each vessel is provided with safe, readily available and sufficient fire-fighting equipment of the type necessary to extinguish any fires which are likely to be encountered in normal operation. Due consideration will be given to hazards caused by the vessel's type of fuel, construction material, equipment, cargo, etc.

Subpart 181.30—Portable Fire Extinguishers

2. Section 181.30–1 is amended by revising Table 181.30–1(a) in paragraph (a) and by revising paragraph (c) to read as follows:

§ 181.30–1 Required number, type and location.

(a) • • •

Title 46—SHIPPING

Chapter I—Coast Guard, Department of Transportation

SUBCHAPTER N—DANGEROUS CARGOES

[CGFR 67-23]

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

PART 147—REGULATIONS GOVERNING USE OF DANGEROUS ARTICLES AS SHIPS' STORES AND SUPPLIES ON BOARD VESSELS

Miscellaneous Amendments

Pursuant to the notice of proposed rule making published in the FEDERAL REGISTER of January 24, 1967 (32 F.R. 795–807), and the Merchant Marine Council Public Hearing Agenda dated March 20, 1967 (CG–249), the Merchant Marine Council held a public hearing on March 20, 1967, for the purpose of receiving comments, views, and data. The proposals considered were identified as Items PH 1–67 to PH 13–67, inclusive. Item PH 1–67 contained proposals regarding dangerous cargoes (CG–249, Item PH 1–67, pages 1 to 64, inclusive), and these proposals, as revised, are adopted and set forth in this document.

The oral and written comments received were considered and changes based thereon were made in certain proposals designated 46 CFR 146.03–4, definition of "carfloat"; 146.23–100 (corrosive liquids) hydrogen peroxide; 146.29–14(a), dangerous cargo manifests, lists, or stowage plans; 146.29–90(f), permitting certain persons other than the master to accept required "documents" when using cargo transporters (Conex box); 146.29–99 Chart A, is brought up to date to show compatability of various classes of military explosives and hazardous munitions; and 146.29–100, under Class XC, the stowage requirements were clarified. The Merchant Marine Council's actions with respect to comments received are approved.

The Merchant Marine Council's recommendation to reject the proposal to amend 46 CFR 146.29–45(c) regarding the working of two holds simultaneously in the same hatch in loading or unloading military explosives and other cargo is adopted. The text of 46 CFR 146.29–45(c) is continued in effect without change in present practices and procedures.

The provisions of R.S. 4472, as amended (46 U.S.C. 170), require that the land and water regulations governing the transportation of dangerous articles or substances shall be as nearly parallel as practicable. The provisions in 46 CFR 146.02–18 and 146.02–19 make the Dangerous Cargo Regulations applicable to all shipments of dangerous cargoes by vessels. The Interstate Commerce Commission by Change Order No. 74 has made changes in regulations with respect to definitions, descriptive names, specifications of containers, packing, marking, and labeling for radioactive materials which are now in effect for land transportation. Various amendments to the Dangerous Cargo Regulations in 46 CFR Part 146 have been included in this document in order that these regulations governing water transportation of certain dangerous cargoes will be as nearly parallel as practicable with the regulations which govern the land transportation of the same commodities.

The amendments to 46 CFR Part 146 which were not described in the FEDERAL REGISTER of January 24, 1967 (32 F.R. 795–798) are considered to be interpretations of law, or revised requirements to agree with existing regulations, or editorial in nature, and it is hereby found that compliance with the Administrative Procedure Act (respecting notice of proposed rule making, public rule making procedure thereon, and effective date requirements thereof) is unnecessary with respect to such changes.

By virtue of the authority vested in me as Commandant, U.S. Coast Guard, by section 632 of Title 14, U.S. Code and Department of Transportation Order 1100.1, dated March 31, 1967 (49 CFR 1.4(a)(2), 32 F.R. 5606), to promulgate regulations in accordance with the laws cited with the regulations below, the following amendments are prescribed and shall be effective July 1, 1967; however, the regulations in this document may be complied with in lieu of existing requirements prior to that date.

1. The authority note 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, July 31, 1965, 30 F.R. 9671; Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606; except as otherwise noted.

Subpart 146.02—General Regulations

1. In § 146.02–10, paragraph (a) is revised and the first sentence of paragraph (b) is revised. As amended, § 146.02–10 reads as follows:

§ 146.02–10 Export shipments.

(a) Export shipments of commercial Class A explosives and radioactive materials, Groups I, II, III, or IV, regardless of whether in interstate transportation prior to delivery to the vessel, shall be packed, marked, labeled, or otherwise in conformity with the Interstate Commerce Commission requirements for the transportation of explosives or other dangerous articles in effect at the time of shipment.

(b) Export shipments of explosives or other dangerous articles or combustible liquids (except commercial Class A explosives and radioactive materials, Groups I, II, III, and IV) may be accepted for transportation when packed, marked, labeled, and described in accordance with the regulations of the country of destination. The bill of lading or other shipping paper shall identify such shipments by the shipping name shown in the regulations in this part for the particular substance, and also shall certify that the packing, marking, and labeling is in accordance with the foreign regulations and identify by title or otherwise such foreign regulations. Markings on export packages may be in the language of the country of destination. Labels shall be affixed or printed or stamped upon such export packages when offered for transportation in lots of one hundred (100) or less packages. Stowage on board a vessel shall be in accordance with the regulations in this part as applicable to the particular character of vessel.

2. In § 146.02–11, paragraph (a) is revised and the first sentences of paragraphs (b), (c), and (d) are revised. As amended, § 146.02–11 reads as follows:

§ 146.02–11 Import shipments.

(a) Import shipments of commercial Class A explosives and radioactive materials, Groups I, II, III, and IV, regardless of whether destined upon arrival at domestic ports for further transportation or not shall be packed, marked, labeled, or otherwise in conformity with the Interstate Commerce Commission requirements for the transportation of explosives or other dangerous articles in effect at the time of shipment.

(b) Import shipments of explosives or other dangerous articles (except commercial Class A explosives and radioactive materials, Groups I, II, III, and IV) destined upon arrival at domestic ports for further transportation outside the port area in original containers, by common contract, or private carrier, must comply with the Interstate Commerce Commission regulations for the transportation of explosives or other dangerous articles in effect at the time of shipment. The importer shall furnish with the order to the foreign shipper, and also to the forwarding agent at the port of entry, full and complete information as to packing, marking, labeling, and other requirements as prescribed by the Interstate Commerce Commission regulations (see § 146.05–14).

(c) Import shipments of explosives or other dangerous articles or combustible liquids (except commercial Class A explosives and radioactive materials, Groups I, II, III, and IV) accepted for transportation in a foreign port in outside metal or wooden barrels or drums not exceeding 110 gallons capacity, wooden boxes not exceeding 300 pounds weight of box and contents, or fiberboard boxes not exceeding 65 pounds weight of box and contents, which upon arrival at domestic ports are not destined for transportation outside the port area in these original import containers by common contract or private carrier may be carried on board vessels provided the shipper certified upon the bill of lading or other shipping paper that the packing, marking, and labeling are in conformity with the regulations of the country of origin. If the country of origin has no regulations governing the transportation by vessel of the explosives and dangerous substances involved, containers of the type described above in

this paragraph may be carried on board vessels: *Provided*, That the shipper shall certify that the container is so constructed as to maintain its complete integrity under all conditions likely to be encountered in transportation. The master of the vessel, before accepting such import shipments, shall satisfy himself that the containers are sufficiently strong to stand, without rupture or leakage of contents, all risks ordinarily incident to transportation. Stowage of import shipments on board vessels shall be in accordance with the provisions of the regulations in this part.

(d) Shipments of explosives or other dangerous articles or combustible liquids (except commercial Class A explosives and radioactive materials, Groups I, II, III, and IV) accepted for transportation in a foreign port which upon arrival at domestic ports are destined for transshipment on vessels subject to the regulations of this part, may be accepted on such vessels provided the bill of lading or other shipping paper identifies the shipment by the shipping name shown in the regulations in this part for the particular substance and provided further that the dangerous cargo is certified to be described as above and to be packaged, marked, and labeled in accordance with the regulations in this part or the regulations of the country of origin of the cargo (provided such regulations are compatible with minimum safety requirements of the regulations in this part). The connecting carrier, before accepting such transshipments, shall satisfy himself that the provisions of this paragraph are complied with. The master of the vessel shall satisfy himself that the containers are sufficiently strong to withstand, without rupture or leakage of contents, all risks incident to transportation. Stowage on board vessels shall be in accordance with the provisions of the regulations in this part.

Subpart 146.03—Definitions of Words and Terms Contained Within the Regulations in This Subchapter

3. Subpart 146.03 is amended by adding a new § 146.03–4, reading as follows:

§ 146.03–4 Carfloat.

A carfloat is a vessel that serves as an extension of a rail line or highway over water. It includes those vessels in other than ocean, coastwise, or ferry services having provisions only for "On deck" stowage of vehicles, operates on a short run, and differs from a ferry service in that it operates on an irregular basis and may serve several points in a port area.

Subpart 146.04—List of Explosives or Other Dangerous Articles Containing the Shipping Name or Description of Articles Subject to the Regulations in This Subchapter

§ 146.04–5 [Amended]

4. Section 146.04–5 is amended by adding or changing certain items as follows:

Article	Classed as	Label required [1]
Items Added		
* * *	* * *	* * *
Fissile radioactive materials, N.O.S.	Pois. D	Radioactive materials, red.
* * *	* * *	* * *
Radioactive devices	Pois. D	
Radioactive materials, low specific activity	Pois. D	Radioactive materials, red or blue.
* * *	* * *	* * *
Items Canceled		
* * *	* * *	* * *
Cesium-137 (see: "Radioactive Materials, Groups I and II")	Pois. D	Poison radioactive materials (red).
* * *	* * *	* * *
Cobalt-60 (see: "Radioactive Materials, Groups I and II")	Pois. D	Poison radioactive materials (red).
* * *	* * *	* * *
Gold-198 (see: "Radioactive Materials, Groups I and II")	Pois. D	Poison radioactive materials (red)
* * *	* * *	* * *
Iridium-192 (see: "Radioactive Materials, Groups I and II")	Pois. D	Poison radioactive materials (red).
* * *	* * *	* * *
Radioactive material—low activity	Pois. D	
* * *	* * *	* * *
Items Changed		
Magnesium-thorium alloys in formed shapes (not powdered, and which shall contain not more than 4 percent nominal thorium-232) (see: § 146.25–25(e)).	Pois. D	Radioactive materials, red special.
* * *	* * *	* * *
Radioactive materials Groups I, II and IV	Pois. D	Radioactive materials, red.
Radioactive materials, Group III	Pois. D	Radioactive materials, blue.
Radioactive materials, N.O.S. (see: "Radioactive materials, Groups I, II and IV," or "Group III").	Pois. D	Radioactive materials, red.
* * *	* * *	* * *
Uranium, normal or depleted, in solid metal form (not borings, chips, or pieces) (see: § 146.25–35 (f)).	Pois. D	Radioactive materials, red special.
* * *	* * *	* * *

[1] Unless otherwise exempt by the provisions of the detailed regulations.

Subpart 146.05—Shipper's Requirements Re: Packing, Marking, Labeling, and Shipping Papers

5. In § 146.05–17, the heading for paragraph (q) is revised and Notes 1 and 2 are added to read as follows:

§ 146.05–17 Labels.

* * * * *

(q) Radioactive materials, Group I, II, or IV.

* * * * *

NOTE 1: Labels, when used for the shipment of Group IV fissile radioactive materials, must be overstamped or otherwise marked "GROUP IV" in a contrasting color.

NOTE 2: The term "Radiation unit" is defined in § 146.25–35(h) of this part.

* * * * *

Subpart 146.06—Vessel's Requirements, Re: Acceptance, Handling, Stowage, etc.

6. In § 146.06–14, paragraph (c) is revised. As amended, § 146.06–14 reads as follows:

§ 146.06–14 Source of information shown on manifest, list, or stowage plan.

(a) The information required to appear on a dangerous cargo manifest, list, or stowage plan by the provisions of § 146.06–15(b) shall be the information actually furnished to the vessel by the shipper of the dangerous substances upon his bill of lading or other shipping paper; and the owner, charterer, agent, master, or person under whose supervision the actual preparation of the manifest, list, or stowage plan is made, shall cause the information required to be correctly transcribed.

(b) Every entry made upon the dangerous cargo manifest, list, or stowage plan shall be a true statement to the best knowledge and belief of the master of the vessel. The provisions of this paragraph shall not apply to barges.

(c) The master, or a licensed deck officer designated by the master and attached to the vessel shall, by his signature, acknowledge the correctness of the dangerous cargo manifest, list, or stowage plan. The provisions of this paragraph shall not apply to barges.

Subpart 146.09—Cargo Handling and Stowage Devices, U.S. Coast Guard Container Specifications

7. In § 146.09–15, the introductory text of paragraph (b) is revised and the introductory text of paragraph (d) is revised to read as follows:

§ 146.09–15 Power-operated industrial trucks.

* * * * *

(b) *Approved power-operated industrial trucks.* Where approved, power-operated industrial trucks are required by the regulations in this part, such approved trucks shall have the specific designation of a recognized testing laboratory, or a certification by the owner that the trucks meet the safety standards of a recognized testing laboratory for the specific designation. The certification shall be filed with the Captain of the Port, and shall identify each piece of equipment by make, type, serial number,

Title 46—SHIPPING

Chapter I—Coast Guard, Department of Transportation

SUBCHAPTER D—TANK VESSELS

SUBCHAPTER I—CARGO AND MISCELLANEOUS VESSELS

[CGFR 67-86]

PART 39—FLAMMABLE OR COMBUSTIBLE LIQUIDS HAVING LETHAL CHARACTERISTICS

PART 98—SPECIAL CONSTRUCTION, ARRANGEMENT, AND PROVISIONS FOR CERTAIN DANGEROUS CARGOES IN BULK

Miscellaneous Amendments

1. Pursuant to the notice of proposed rule making published in the FEDERAL REGISTER of January 24, 1967 (32 F.R. 795–807), and the Merchant Marine Council Public Hearing Agenda dated March 20, 1967 (CG–249), the Merchant Marine Council held a public hearing on March 20, 1967, for the purpose of receiving comments, views, and data. The proposals considered were identified as Items PH 1–67 to PH 13–67, inclusive. Item PH 2–67 contained proposals regarding bulk dangerous cargoes (CG–249, pages 65 to 75, inclusive), and these proposals, as revised, are adopted and set forth in this document.

2. The oral and written comments received were considered and certain changes were made in the proposals in Item PH 2–67. The proposal regarding shipping papers for cargo barges carrying certain dangerous cargoes in Item PH 2a–67 (CG–249, page 65) was revised. The proposals regarding draft marks to be placed on cargo barges carrying certain dangerous cargoes in Item PH 2b–67 (CG–249, pages 66 and 67) are withdrawn. The proposals regarding barges carrying liquid chlorine in bulk in Item PH 2c–67 (CG–249, pages 68 to 71, inclusive) are accepted. The proposal regarding barges carrying anhydrous ammonia in bulk in Item PH 2d (CG–249, page 72) is accepted with editorial changes. The proposals regarding venting of tank barges carrying liquids having lethal characteristics in Item PH 2e–67 (CG–249, pages 73 to 75, inclusive) are accepted. The Merchant Marine Council's actions with respect to comments on proposals in Item PH 2–67 are approved.

3. By virtue of the authority vested in me as Commandant, U.S. Coast Guard, by section 632 of Title 14, United States Code and Department of Transportation Order 1100.1, dated March 31, 1967 (49 CFR 1.4(a)(2), 32 F.R. 5606), to promulgate regulations in accordance with the laws cited with the regulations below, the following amendments are prescribed and shall be effective January 1, 1968, for both new and existing vessels; however, the regulations in this document may be complied with in lieu of existing requirements prior to that date.

4. The authority note 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 R.S. 4472, as amended, 4488, as amended, sec. 3, 68 Stat. 675, sec. 6(b)(1), 80 Stat. 938; 46 U.S.C. 170, 481, 50 U.S.C. 198, 49 U.S.C. 1655(b); E.O. 11239, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp. Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2), 32 F.R. 5606; except as otherwise noted.

Subpart 39.20—Venting and Ventilation

§ 39.20–1 [Amended]

5. Section 39.20–1 is amended by changing the heading from "Venting—TB/ALL" to "Venting—T/ALL."

6. Subpart 39.20 is amended by inserting after § 39.20–1 a new section reading as follows:

§ 39.20–2 Venting—B/ALL.

(a) Manned barges shall meet the requirements of § 39.20–1.

(b) For unmanned barges, the following requirements shall apply:

(1) The discharge fittings from each safety relief or pressure vacuum relief valve shall be directed in such a manner as to not impinge on another tank, piping or any other equipment which would increase the fire hazard should burning products be discharged from the safety or pressure vacuum relief valve as a result of a fire or other casualty. In addition, the discharges shall be directed away from areas where it is likely that persons might be working and as remote as practicable from ventilation inlets and ignition sources. A common discharge header may be employed if desired. The area near the discharge fittings shall be clearly marked as a hazardous area.

(2) A means shall be provided for either the reclamation or safe venting of vapors during the loading and unloading operations. For this purpose the safety relief or pressure vacuum relief valve shall be provided with a valved bypass to a vapor return line shore connection which shall be used whenever vapor return shore facilities are available. In the event vapors must be vented to the atmosphere, a vent riser shall be connected to the vapor return line and extend at least 12 feet above the highest level accessible to personnel. The vent riser may be collapsible for ease of stowage when not in use. The vent riser shall not be connected to a safety relief or pressure vacuum valve. Vapor return lines or vent risers for tanks carrying the same class product may be connected to a common header system if desired.

(3) Tanks carrying Class "B" or "C" poisons shall be vented independent of tanks carrying other products.

7. The authority note 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, sec. 6(b)(1), 80 Stat. 938; 46 U.S.C. 170, 481, 50 U.S.C. 198, 49 U.S.C. 1655(b); E.O. 11239, July 31, 1965, 30 F.R. 9671, 3 CFR, 1965 Supp. Department of Transportation Order 1100.1, Mar. 31, 1967, 49 CFR 1.4(a)(2) 32 F.R. 5606; except as otherwise noted.

Subpart 98.03—Barges Carrying Dangerous Cargoes

8. Section 98.03–35 is amended by adding a new paragraph (h) at the end thereof reading as follows:

§ 98.03–35 Special operating requirements for barges carrying certain dangerous cargoes in bulk.

* * * * *

(h) (1) Each barge carrying dangerous cargoes shall have on board a bill of lading, manifest, or shipping document giving the following:

(i) Name of the shipper.

(ii) Location of the loading point.

(iii) Kind, grade, and approximate quantity by compartment of each kind and grade of cargo in the barge.

(2) Such bill of lading, manifest, or shipping document may be made out by the person in charge of the barge, the master of the towing vessel, or the owner of the barge or his agent: *Provided*, That in the case of any unmanned barge, the master of the towing vessel shall either have a copy of the shipping papers for such barge when in his tow or he shall make an entry in the towing vessel's logbook giving the information required by subparagraph (1) of this paragraph. A barge should not be delayed in order to secure exact quantities of cargo.

Subpart 98.05—Elemental Phosphorus In Water In Bulk

§ 98.05–50 [Amended]

9. Section 98.05–50 *General requirements* is amended by changing in paragraph (f) the title from "Commandant (MMT)" to "Commandant (MHM)."

Subpart 98.10—Sulfuric Acid in Bulk

§ 98.10–45 [Amended]

10. Section 98.10–45 *General requirements* is amended by changing in

agraph (f) the title from "Commandant (MMT)" to "Commandant (MHM)."

Subpart 98.15—Hydrochloric Acid in Bulk

§ 98.15–45 [Amended]

11. Section 98.15–45 *General requirements* is amended by changing in paragraphs (f) and (g) the title from "Commandant (MMT)" to "Commandant (MHM)."

Subpart 98.18—Phosphoric Acid in Bulk

§ 98.18–45 [Amended]

12. Section 98.18–45 *General requirements* is amended by changing in paragraphs (f) and (g) the title from "Commandant (MMT)" to "Commandant (MHM)."

Subpart 98.20—Liquid Chlorine In Bulk

13. Section 98.20–40(c) is amended to read as follows:

§ 98.20–40 Cargo piping.

* * * * *

(c) In multiple tank installations the tanks shall not be interconnected by piping or manifolds which may contain liquid chlorine. Manifolding of vapor lines of individual tanks into a common ader for connection to shore is per- ted. More than one cargo tank may be filled or discharged at a time, provided each tank is filled from or discharged to shore tanks through separate lines.

14. Section 98.20–55 is amended to read as follows:

§ 98.20–55 Venting.

(a) Each cargo tank shall have the safety relief valve outlets connected to separate risers which shall extend to a reasonable height above the deck; or, the safety relief valves may discharge into the protective housing surrounding the valves. Suitable provisions shall be made to vent the housing. Other installations acceptable to the Commandant may be used. The arrangement shall be such as to minimize the hazard of escaping vapors.

(b) When vent risers are installed, they shall be designed so as to prevent stresses on safety relief valve mountings and to provide protection against physical damage. Return bends and restrictive pipe fittings shall not be used. Risers shall be fitted with loose rain caps and suitable provision shall be made for draining the vent piping if liquid can collect therein.

15. Section 98.20–60 is amended by deleting the second sentence in paragraph (b), by inserting the phrase "by volume" after the phrase "80 percent chlorine" (twice) in second sentence of paragraph), and by changing the phrase from percent" to "75 percent" in the last sentence of paragraph (f), and these paragraphs as revised read as follows:

§ 98.20–60 Filing and discharge operation.

* * * * *

(b) Prior to the start of filling operations, care shall be exercised to insure that the cargo tank(s) is empty and free from foreign matter.

* * * * *

(d) After the filling operation is completed the vapor above the liquid chlorine in the cargo tank shall be analyzed to determine the percentage of gaseous chlorine in the vapor space. If it should contain less than 80 percent chlorine, by volume, vapors shall be withdrawn through the vent or vapor line until the vapor content in the cargo tanks shows at least 80 percent chlorine, by volume.

* * * * *

(f) The chlorine in the cargo tanks shall be discharged by the pressure differential method. Where the vapor pressure of the chlorine is not sufficient to force the liquid out of the tank, compressed air may be used to secure the desired rate of discharge, provided the air is oil-free and thoroughly dried by passing it over activated aluminum oxide, silica gel, or other acceptable drying agent. The compressed air systems shall contain a relief valve arranged and set so that the air pressure in the cargo tank cannot exceed 75 percent of the allowable pressure of the tank.

* * * * *

§ 98.20–70 [Amended]

16. Section 98.20–70 *Special operating requirements* is amended by changing in paragraphs (e) and (f) the title from "Commandant (MMT)" to "Commandant (MHM)."

Subpart 98.25—Anhydrous Ammonia in Bulk

§ 98.25–90 [Amended]

17. Section 98.25–90 *Special operating requirements* is amended by changing in paragraph (d) the title from "Commandant (MMT)" to "Commandant (MHM)."

18. Section 98.25–95(a) is amended to read as follows:

§ 98.25–95 Tests and inspections.

(a) Each cargo tank shall be subjected to an internal examination at least once in each 8 calendar years. To the extent and if deemed necessary by the marine inspector, sufficient insulation shall be removed from insulated tanks at least once in each 8 calendar years to permit spot external examination of the tanks and insulation. The marine inspector may require that the thickness of the tanks be gaged by an acceptable nondestructive means without removal of insulation. An external examination of unlagged tanks and the visible parts of lagged tanks shall be made at each biennial inspection.

* * * * *

Subpart 98.35—Portable Tanks For Combustible Liquids

§ 98.35–7 [Amended]

19. Section 98.35–7 *Plan approval* is amended by changing in paragraph (a) the title from "Commandant (MMT)" to "Commandant (MHM)" and by changing the Zip number from "20226" to "20691."

Dated: December 5, 1967.

W. J. SMITH,
Admiral, U.S. Coast Guard,
Commandant.

[F.R. Doc. 67-14365; Filed, Dec. 8, 1967; 8:46 a.m.]

and owner's identification number. Such certification shall be accompanied by an inspection report of a cargo gear inspection service or a qualified inspector acceptable to the Captain of the Port, which shall attest that the equipment complies with the safety standards required by this section. The following laboratories are recognized for the specific type designations listed:

* * * * *

(d) *Minimum safety features.* In addition to the construction and design safety features required for approved power-operated industrial trucks, they shall have at least the following minimum safety features where applicable:

* * * * *

Subpart 146.20—Detailed Regulations Governing Explosives

8. In § 146.20–35, paragraph (e) (1) and (2) is revised. As amended, § 146.20–35(e) reads as follows:

§ 146.20–35 Handling explosives.

* * * * *

(e) Except as otherwise provided in this paragraph, power-operated industrial trucks shall not be used in a space in which Class A, Class B, or Class C explosives are stowed.

(1) The Commandant may grant authority for the use of approved power-operated industrial trucks of approved type "EX" (see § 146.09–15(b)) in spaces in which Class A, Class B, or Class C explosives are stowed when it can be shown that such trucks can be used with safety.

(2) In a space in which packaged small arms ammunition without explosive bullets is stowed when it can be shown power-operated industrial trucks of approved type "EX," "EE," "LPS," "GS," and "DS" (see § 146.09–15(b)) may be used with safety for handling cargo including the handling of such packaged small arms ammunition.

8a. In § 146.20–85, paragraph (a) is revised to read as follows:

§ 146.20–85 Authorization to load or discharge explosives.

(a) Unless exempt under paragraph (b) of this section, shipments of Class A explosives shall not be laden on, handled or restowed on, nor discharged from any vessel at any point or place in the United States, its territories or possessions (not including the Panama Canal Zone) until authorization for such loading, handling, restowing, or discharging has been obtained by the owner, agent, charterer, master, or person in charge of the vessel from the Coast Guard District Commander, or his authorized representative.

* * * * *

8b. Section 146.20–87 is amended by revising the introductory text and paragraph (a) to read as follows:

§ 146.20–87 Permit for Class A explosives.

Before a permit is issued authorizing the loading, handling, restowing, or discharging of Class A explosives in accordance with § 146.20–85, the requirements of this section shall be met:

(a) The permittee shall file a written application for a permit authorizing the loading, handling, restowing, or discharging of explosives. When filed, the application for a permit to load, handle, or restow shall be accompanied by a preliminary manifest of all explosives or other dangerous articles comprising the cargo of the vessel together with a preliminary cargo stowage plan showing the proposed stowage of all such cargo. Changes in the final stowage from that shown in the preliminary cargo stowage plan may be made upon approval of the issuing officer.

* * * * *

Subpart 146.21—Detailed Regulations Governing Inflammable Liquids

9. Section 146.21–15 is amended by adding a new paragraph (c). As amended, § 146.21–15 reads as follows:

§ 146.21–15 Stowage on board vessels.

(a) All inflammable liquids permitted for transportation on board vessels shall, when taken on board a vessel, be stowed in accordance with the provisions applying to the particular character of vessel as shown in the tables, § 146.21–100, and with the detailed regulations of stowage shown in this subpart.

(b) ICC specification portable tanks, not over 20,000 pounds gross weight and ICC specification tank cars and motor vehicle tank trucks approved for the commodity carried and permitted transportation on board vessels by § 146.21–100 shall be stowed in the specific location provided by § 146.21–100. The conversion table 46 CFR 146.07–40(c) does not apply.

(c) Containers of inflammable liquids which are equipped with vents or safety relief devices shall be stowed "On deck" only.

10. Section 146.21–57 is revised to read as follows:

§ 146.21–57 Use of power-operated industrial trucks in spaces containing flammable liquids.

(a) In a space in which packaged flammable liquids are stowed, only approved power-operated industrial trucks of approved types EX, EE, GS, LPS, and DS (see § 146.09–15(b)) may be used for handling cargo including the handling of such packaged flammable liquids.

Subpart 146.22—Detailed Regulations Governing Inflammable Solids and Oxidizing Materials

11. In § 146.22–7, paragraphs (a) and (c) are revised. As amended, § 146.22–7 reads as follows:

§ 146.22–7 Use of power-operated industrial trucks in spaces containing flammable solids and oxidizing materials.

(a) In a space in which packaged flammable solids or oxidizing materials are stowed, only approved power-operated industrial trucks of approved types EX, EE, GS, LPS, and DS (see § 146.09–15(b)) may be used for handling cargo including the handling of such packaged flammable solids or oxidizing materials.

(b) When flammable solids or oxidizing materials are contained in closed cargo vans or closed containers and no other dangerous cargo is stowed in the hold or compartment, any standard commercial type power-operated industrial truck in safe operating condition and having minimum safety features (see § 146.09–15) may be used in the space.

(c) When oxidizing materials in bulk are stowed in a hold or compartment, any approved commercial type power-operated industrial truck may be used in the space (see § 146.09–15(b)).

§ 146.22–100 [Amended]

12. Section 146.22–100 *Table E—Classification: Inflammable solids* is amended as follows:

A. Amend "Coal facings, etc." as follows:

(1) In columns 4 and 7, delete "Airtight metal containers, etc." and insert in lieu thereof:

Airtight metal containers, not over 350 lb. gr. wt.	

Subpart 146.23—Detailed Regulations Governing Corrosive Liquids

13. Section 146.23–13 is revised to read as follows:

§ 146.23–13 Use of power-operated industrial trucks in spaces containing corrosive liquids.

(a) Any approved power-operated industrial truck (see § 146.09–15(b)) may be used in spaces in which corrosive liquids are stowed, including the handling thereof, unless otherwise restricted by regulations in this part.

§ 146.23–100 [Amended]

14. Section 146.23–100 *Table F—Classification: Corrosive liquids* is amended as follows:

A. Amend the following items as follows:

(1) Ethyl chloroformate.

(2) Methyl chloroformate.

In column 4, under "Stowage" add the following:

"Tween decks readily accessible."
"Under deck away from heat."

B. Amend "Hexamethylene diamine solutions" as follows:

(1) In columns 4 and 5, under "Stowage" add the following:

"Tween decks."
"Under deck."

C. Amend "Hydrogen peroxide, etc.," as follows:

(1) In columns 4, 6, and 7, delete "Highway vehicle cargo tanks." and insert in lieu thereof:

Motor vehicle tank trucks complying with ICC regulations for bydrogen peroxide over 52% strength (trailerships and trainships only).	

(2) In column 5, delete "Highway vehicle cargo tanks".

Subpart 146.24—Detailed Regulations Governing Compressed Gases

15. Section 146.24–27 is revised to read as follows:

§ 146.24–27 Use of power-operated industrial trucks in spaces containing compressed gases.

(a) Power-operated industrial trucks of approved types EX, EE, GS, LPS, and DS (see § 146.09–15(b)) may be used in spaces in which flammable compressed gases are stowed including handling thereof.

(b) Any approved power-operated industrial truck (see § 146.09–15(b)) may be used in spaces in which noninflammable compressed gases are stowed, including the handling thereof, unless otherwise restricted by regulations in this part.

Subpart 146.25—Detailed Regulations Governing Poisonous Articles

16. Section 146.25–20 is revised to read as follows:

§ 146.25–20 Radioactive materials, Class D poison.

(a) "Radioactive material" means any material, or combination of materials, that spontaneously emits ionizing radiation, and having a specific activity of greater than 0.002 microcuries per gram. Radioactive materials are divided into four groups as follows:

(1) *Group I.* Radioactive materials that emit either gamma rays only, or gamma rays plus alpha and/or beta particles.

(2) *Group II.* Radioactive materials that emit neutrons and either or both types of radiation characteristic of Group I materials.

(3) *Group III.* (i) Radioactive materials that emit alpha and/or beta particles only, or

(ii) Radioactive materials so shielded that the radiation at the external surface of the outside container does not exceed 0.5 milliroentgens per hour or equivalent.

(4) *Group IV.* Fissile radioactive materials, including uranium-233, uranium-235, plutonium-238, plutonium-239, and plutonium-241.

17. Section 146.25–21 is revised to read as follows:

§ 146.25–21 Fissile materials.

(a) Group IV fissile radioactive materials are classified according to the controls needed to provide nuclear criticality safety during transport as follows:

(1) *Fissile Class I.* Packages which may be transported in unlimited numbers and in any arrangements which require no nuclear criticality safety controls during transport.

(2) *Fissile Class II.* Packages which may be transported together in any arrangement but in numbers which do not exceed an aggregate of 40 radiation units. Such shipments require no nuclear criticality safety control by the shipper during transport.

(3) *Fissile Class III.* Shipments of packages which do not meet the requirements of Fissile Classes I or II and which are controlled in transport by special arrangements by the shipper.

(b) The following shall not be classified as Group IV fissile radioactive materials, but shall instead be classified as Group I, II, or III radioactive materials in accordance with the provisions of § 146.25–20(a):

(1) Not more than 15 grams of fissile radioactive materials.

(2) Any quantity of natural or depleted uranium.

(3) Solutions or homogeneous compounds of uranium where the uranium-235 content does not exceed 1 percent by weight of the total uranium content, and the uranium-233 and plutonium content does not exceed 1 percent by weight of the total uranium-235 content.

(4) Solutions or homogeneous compounds containing not more than:

(i) 500 grams of any fissile material, and the atomic ratio of hydrogen to fissile material is greater than 7,600;

(ii) 800 grams of uranium-235, the atomic ratio of hydrogen to fissile material is greater than 5,200, and the total uranium-233 and plutonium content is not more than 1 percent by weight of the total uranium-235 content; or

(iii) 500 grams of uranium-233, the atomic ratio of hydrogen to fissile material is greater than 5,200, and the total uranium-235 and plutonium content is not more than 1 percent by weight of the total uranium-233 content.

(c) Materials classified as Group IV fissile radioactive materials shall not, in addition, be classified as Group I, II, or III radioactive materials.

(d) Uranium-235 exists only in combination with various percentages of uranium-234 and uranium-238. The term "fissile radioactive material" as applied to uranium-235 refers to the amount of uranium-235 actually contained in the total quantity of uranium being transported.

18. A new § 146.25–23 is added, to read as follows:

§ 146.25–23 Low specific activity material.

"Low specific activity material" means any of the following:

(a) Uranium or thorium ores, physical or chemical concentrates and residues of those ores;

(b) Unirradiated natural or depleted uranium or unirradiated natural thorium;

(c) Tritium oxide in aqueous solutions provided the concentration does not exceed 5.0 millicuries per milliliter.

(d) Material in which the activity is uniformly distributed and in which the estimated concentration per gram does not exceed:

(1) 0.0001 millicuries of radium, plutonium, or polonium; or

(2) 0.005 millicuries of strontium-90 or mixed fission products; or

(3) 0.3 millicuries of other radioactive materials.

19. Section 146.25–25 is revised to read as follows:

§ 146.25–25 Exemptions for radioactive materials.

(a) Radioactive materials are exempt from prescribed packaging, marking, and labeling requirements, provided they fulfill all of the conditions in subparagraphs (1), (2), and (3) of this paragraph, except that the proper shipping name of the contents is required on the outside of the package.

(1) The package must be such that there can be no leakage of radioactive materials under conditions normally incident to transportation.

(2) The package must not contain more than any of the following quantities of radioactive materials:

(i) 0.1 millicurie of radium, polonium, or plutonium; or

(ii) 0.135 millicurie of strontium-90; or

(iii) 15 grams of uranium-235; or

(iv) 1.35 millicuries of other radioactive materials.

(3) The package must be such that the radiation at the external surface of the package does not exceed 0.5 milliroentgen per hour of gamma radiation or equivalent.

(b) Manufactured articles such as instruments, clocks, electronic tubes, or apparatus, or other similar devices, having radioactive materials (other than liquids) in a nondispersible form as a component part, are exempt from specification packaging, marking (other than the proper shipping name of the contents) and labeling, provided that all of the conditions in subparagraphs (1) to (6) of this paragraph are met. (For radioactive gases, the requirement for the radioactive material to be in a nondispersible form does not apply.)

(1) Radioactive materials are securely contained within the items, or are securely packaged in strong, tight outside containers;

(2) The radiation dose rate at 10 centimeters (4 inches) from any such article does not exceed 10 milliroentgens per hour of gamma radiation or equivalent;

(3) The radiation dose rate at the external surface of the package or item, as shipped, does not exceed 0.5 milliroentgen per hour of gamma radiation or equivalent.

(4) There is no significant removable surface contamination on the exterior of the package or item.

(5) The total radioactivity content of each package does not exceed the following:

(i) 1 millicurie of radium, polonium, or any isotope with an atomic number of 93 or greater; or

(ii) 50 millicuries of strontium-90 or mixed fission products;

(iii) 200 curies of tritium as a gas; as a luminous paint or as adsorbed on a solid carrier;

(iv) 2.7 curies of any other radionuclide, except that up to 20 curies of any radionuclide in special form is permitted and further provided that no package may contain more than 15 grams of fissile material.

NOTE 1: "Special form" is defined in the regulations of the U.S. Atomic Energy Commission, Title 10, Code of Federal Regulations, Part 71.

(6) The total radioactivity content of each individual item does not exceed 10 percent of the total package limits specified in subparagraph (5) of this paragraph.

(c) Radioactive materials of low specific activity, packed in strong, tight containers, are exempt from specification packaging, marking other than name of contents, and labeling requirements for transportation on board vessels only if the gamma radiation or equivalent in any area of habitual occupancy is such that a person continually present in such an area would not be likely to receive a whole body dose of more than 500 milliroentgens a year. The consignor or consignee shall advise the person in charge of loading or discharging of the hazards of the cargo and the regulations pertaining thereto.

(d) Detonating fuzes with radioactive components as described in § 146.20–7(g)(3) are exempt from the labeling requirement.

(e) Magnesium-thorium alloys containing not more than 4 percent nominal thorium-232, in formed shapes, must be in bundles, boxes, barrels, or crates and as such are exempt from specification packaging. Each bundle or package shall bear the radioactive materials label as prescribed in § 146.05–17(w) unless exempted under paragraph (a) or (b) of this section.

(f) Uranium, normal or depleted, in solid form (not borings, chips or finely divided pieces) must be packaged in strong, tight fibreboard, wooden, or plywood boxes, or metal containers, and as such are exempt from specification packaging except for conformance with § 146.25–30 (d) and (e). Packages weighing more than 500 pounds must be mounted on skids. Packages shall bear the radioactive materials label as described in § 146.05–17(w) unless exempt under paragraph (a) or (b) of this section. Radiation dose rates for each package shall be in accordance with § 146.25–30(g).

20. Section 146.25–30 is amended by revising paragraphs (a) and (b), by revoking paragraphs (c) and (f) and by revising paragraphs (g), (h), and (j). As amended, § 146.25–30 reads as follows:

§ 146.25–30 Packing and shielding of radioactive materials.

(a) Except for low specific activity materials, not more than the following amounts of radioactive materials may be packed in one outside container for shipment by water except as specifically approved by the Commandant of the U.S. Coast Guard:

(1) 2 curies of polonium or radium;

(2) 300 curies of any radionuclide meeting the definition of "special form" as described in the regulations of the U.S. Atomic Energy Commission, Title 10, Code of Federal Regulations, Part 71;

(3) 2.7 curies of any other radioactive material.

(b) Radioactive materials that present special hazards due to their tendency to remain fixed in the human body for long periods of time (e.g., radium, plutonium, and radioactive strontium, etc.) must, in addition to the packing prescribed in §146.25–400, Table H, be packed in inside metal containers Specification 2R or in other containers approved by the Interstate Commerce Commission and authorized by the Commandant of the Coast Guard. Radioactive materials meeting the definition of "special form" as described in the Regulations of the U.S. Atomic Energy Commission, Title 10, Code of Federal Regulations, Part 71, are approved as equivalent to a specification 2R container.

(c) [Reserved]

(d) The design and preparation of the package must be such that there will be no significant radioactive surface contamination of any part of the container.

(e) The smallest dimension of any outside shipping container for radioactive materials must be not less than 4 inches.

(f) [Reserved]

(g) All radioactive materials, liquid, solid, and gaseous, must be packed in suitable inside containers (shielded, if necessary) so that at any time during transport the radiation dose rate does not exceed any of the limits specified in subparagraphs (1), (2), and (3) of this paragraph. The container must be designed to maintain its shielding efficiency and leak-tightness under conditions normally incident to transport.

(1) 200 millroentgens per hour of gamma radiation or equivalent at the external surface of the package.

(2) 10 millroentgens per hour of gamma radiation or equivalent at one meter from the external surface of the package.

(3) 0.5 millroentgens per hour of gamma radiation or equivalent at 5 meters (or 15 feet) from the external surface of the package.

(h) All liquid radioactive materials must, in addition, be packed in tight glass, earthenware, metal, or other suitable inside containers. The inside container must be surrounded on all sides by an absorbent material sufficient to absorb the entire liquid contents and of such a nature that its efficiency will not be impaired by chemical reaction with the contents. Where the use of shielding is necessary to reduce radiation dose rates to limits prescribed by this section, the absorbent materials should be placed within the shield. If the contents are packed in a metal container, ICC specification 2R or equivalent, the absorbent material is not required.

(i) [Reserved]

(j) Fissile radioactive materials, Group IV, are subject to the following additional provisions:

(1) The shipment shall be made in containers authorized by the Commandant, U.S. Coast Guard, and each shipment shall be made in accordance with procedures approved by the U.S. Atomic Energy Commission.

(2) For each shipment of fissile materials, the shipper shall supply the vessel with a certificate issued and signed by the shipper or his duly authorized representative as follows:

This is to certify that this package contains fissile (special nuclear) material and has been prepared for shipment in accordance with the packaging requirements and limitations established by the U.S. Atomic Energy Commission as conditions of AEC License SNM No. _____ (or the terms of Contract No. _____). This type of packaging and the contents thereof have been approved as (*insert the appropriate class according to § 146.25–21*) and is safe for transport subject to the following conditions:

(List all conditions. If none, insert "None.")

(3) No package of fissile radioactive material for which the calculated radiation unit number is greater than 10 may be offered to a carrier for transport as Fissile Class II, nor may it be transported as Fissile Class II. Mixing of packages of other types of radioactive materials, including Fissile Class I, with Fissile Class II is permissible provided that the limitations of § 146.25–35 (f) and (g) are not exceeded.

(4) For Fissile Class III shipments, special authority must be obtained from the Commandant, U.S. Coast Guard.

Requests for authorizations shall include:

(i) The name and quantity of fissile contents.

(ii) A description of the special arrangements which assure nuclear criticality safety.

(5) Each outside container, unless exempt, must be labeled with a properly executed label as described in § 146.05–17(q). The number of radiation units to be entered on the label shall be determined in accordance with § 146.25–35(h)(2).

21. Section 146.25–35 is amended by revising paragraphs (e) and (f) and by adding new paragraphs (g) and (h) to read as follows:

§ 146.25–35 Stowage and handling of radioactive materials on board vessels.

* * * * *

(e) No radioactive materials, Groups I, II, III, or IV, shall be stowed on board a vessel in any hold, compartment, or deck space so that the total gamma radiation or equivalent in any space or area continuously occupied by passengers, crew, or shipments of animals will exceed 0.5 milliroentgens per hour at any time during transportation. Any hold, compartment, or enclosed deck space containing radioactive materials shall be so ventilated that there will be no accumulation of radioactive gases in that hold, compartment, or enclosed deck space.

(f) Not more than 40 units of radioactive materials Groups I, II, and IV shall be stowed together in any one area or place. If the shipment exceeds 40 units, a distance of at least 60 feet must separate increments of not more than 40 units each.

(g) For Fissile Class II shipments, not more than 40 radiation units may be stowed in any one hold. Not more than two Fissile Class II shipments may be

carried at any one time unless authorized by the Commandant, U.S. Coast Guard.

(h) A "radiation unit" is the number placed on a package label to designate the degree of control to be exercised by the carrier during transportation. Radiation units in excess of the number required must not be assigned for the purpose of effecting a higher degree of control during transportation, or for any other purpose. For the purposes of this Part 146, the radiation unit number to be assigned to a package shall be either of the following:

(1) One (1) radiation unit equals one (1) milliroentgen per hour of gamma radiation or equivalent at 1 meter from any accessible external surface of the package. One (1) millirad of beta radiation or 0.1 millirad of thermal neutron radiation is considered equivalent to 1 milliroentgen of gamma radiation.

(2) For Group IV fissile radioactive materials only, the number of radiation units to be marked on any package shall be the larger of the following:

(i) The number of radiation units as defined in subparagraph (1) of this paragraph; or

(ii) The number of calculated radiation units obtained by dividing the number "40" by the number of similar packages which may be transported together.

NOTE 1: The method of determination of the calculated number of radiation units for Group IV fissile radioactive materials is given in the regulations of the Atomic Energy Commission, Title 10, Code of Federal Regulations, Part 71.

22. Section 146.25-43 is revised to read as follows:

§ 146.25-43 Use of power-operated industrial trucks in spaces containing poisonous articles.

(a) Any approved power-operated industrial truck (see § 146.09-15(b)) may be used in spaces in which poisonous articles are stowed, including the handling thereof, unless otherwise restricted by regulations in this part.

23. In § 146.25-50, paragraph (b) is revised to read as follows:

§ 146.25-50 Care following leakage or sifting of poisonous articles.

* * * * *

(b) In case of fire, collision, or breakage involving shipments of radioactive materials, other than the materials of low specific activity, the package or material shall be segregated from contact with personnel. In case of obvious leakage, or if the inside container appears to have been damaged, the section (hold, deck area, or compartment) containing this cargo must be isolated as much as possible, and care should be taken to prevent radioactive material from entering the body through contact, inhalation, or ingestion. No person shall be allowed to handle the material or to remain in the vicinity until qualified personnel are present to supervise. In any incident in which radioactive materials are involved in fires or are damaged, the shipper and the District Commander of the U.S. Coast Guard, or his authorized representative, having supervision over the port or place where the vessel is located or bound shall be notified immediately.

* * * * *

§ 146.25-400 [Amended]

24. Section 146.25-400 *Table H—Classification: Class D; radioactive materials* is amended as follows:

A. A new entry "Radioactive devices" is added as follows:

(1) In column 1 insert:

Radioactive devices.

(2) In column 2 insert:

Manufactured articles having radioactive material (other than liquids) as a component part as described by § 146.25-25(b).
Do not stow with explosives, flammable liquids, compressed flammable gases, corrosive liquids, or poisonous gases or liquids in cylinders, projectiles, or bombs.
Do not stow with undeveloped photographic or radiographic film. Observe instructions and safety precautions as set forth in this subpart.

(3) In column 3 insert:

No label required.

(4) In columns 4 and 5 insert:

Stowage:
"On deck protected."
"On deck under cover."
"Tween decks readily accessible."
"Under deck."
Outside containers: Strong outside containers with or without inside containers, meeting the applicable requirements of § 146.25-25(b).

(5) In column 6 insert:

Ferry stowage (AA).
Outside containers: Strong outside containers with or without inside containers, meeting the applicable requirements of § 146.25-25(b).

(6) In column 7 insert:

Ferry stowage (BB).
Outside containers: Strong outside containers with or without inside containers, meeting the applicable requirements of § 146.25-25(b).

B. A new entry "Radioactive materials, low specific activity" is added as follows:

(1) In column 1 insert:

Radioactive materials, low specific activity.

(2) In column 2 insert:

Uranium or thorium ores, physical or chemical concentrates and residues of those ores; unirradiated natural or depleted uranium or unirradiated natural thorium; tritium oxide in aqueous solutions (including "heavy water") not exceeding 5.0 millicuries per milliliter concentration; and other materials containing dilute radionuclides as defined in § 146.25-23.
See § 146.25-25(c) for exemptions.
Do not stow with explosives, flammable liquids, compressed flammable gases, corrosive liquids, or poisonous gases or liquids in cylinders, projectiles, or bombs, or with undeveloped photographic and radiographic film.
Observe instructions and safety precautions as set forth in this subpart.

(3) In column 3 insert:

Radioactive materials, red or blue.

(4) In column 4 insert:

Stowage:
"On deck protected."
"On deck under cover."
"Tween decks readily accessible."
"Under deck."
Outside containers:
Wooden boxes (ICC-15A, 15B, 19A, 19B) WIC.
Fiberboard boxes (ICC-12B) WIC.
Fiber drums:
(ICC-21C) not over 225 lb. net wt.
(ICC-21P) WIC ICC-2S, 2SL, 2T.
Metal barrels or drums:
(ICC-6A, 6B, 6C).
(ICC-6D) WIC ICC-2S, 2SL, 2T.
(ICC-17C, 17H) STC.
(ICC-37M) WIC ICC-2S, 2SL, 2T.

(5) In colums 5, 6, and 7 insert:

Not permitted.

C. The entry "Radioactive materials Groups I and II, etc." is amended as follows:

(1) Column 1 is revised to read as follows:

Radioactive materials, Groups I and II.
Radioactive materials, N.O.S.

(2) Column 2 is revised to read as follows:

Group I: Radioactive materials that emit gamma rays only or gamma rays plus alpha and/or beta particles.
Group II: Radioactive materials that emit neutrons and any of the following: Gamma rays, alpha particles, or beta particles.
Do not stow with explosives, flammable liquids, compressed flammable gases, corrosive liquids, or poisonous gases or liquids in cylinders, projectiles, or bombs. Do not stow with undeveloped photographic and radiographic films. Observe instructions and safety precautions as set forth in this subpart.

D. The entry "Radioactive materials Group III, etc." is amended as follows:

(1) Column 1 is revised to read as follows:

Radioactive materials, Group III.
Radioactive materials, N.O.S.

(2) Column 2 is revised to read as follows:

Group III: Radioactive materials that emit alpha and/or beta rays only or any other radioactive material that is so shielded that the gamma radiation at the surface of the package does not exceed 0.5 milliroentgens per hour or equivalent at any time during transportation.
Do not stow with explosives, flammable liquids, compressed flammable gases, corrosive liquids, or poisonous gases or liquids in cylinders, projectiles, or bombs. Do not stow with undeveloped photographic and radiographic films. Observe instructions and safety precautions as set forth in this subpart.

E. A new entry is added after "Radioactive Materials, Group III, etc." as follows:

(1) In column 1, insert:

Radioactive materials, Group IV.
Fissile radioactive materials, N.O.S.

(2) In column 2, insert:

Group IV: Radioactive materials that require controls to provide nuclear criticality safety as described in § 146.25-21.

Do not stow with explosives, flammable liquids, compressed flammable gases, corrosive liquids, or poisonous gases or liquids in cylinders, projectiles, or bombs.
Do not stow with undeveloped photographic and radiographic films. Observe instructions and safety precautions as set forth in this subpart.

(3) In column 3, insert:

Radioactive materials, Group IV: Red.

(4) In column 4, insert:

Stowage:
"On deck protected."
"On deck under cover."
"Tween decks readily accessible."
Outside containers:
Authorized for not more than 14 kilograms of uranium-235:
Metal barrels or drums (ICC 6L).
Other approved containers.
Packaging and shielding requirements of this subpart must be complied with.

(5) In column 5, insert:

Stowage:
"On deck protected."
"On deck under cover."
"Tween decks readily accessible."
Outside containers:
Authorized for not more than 14 kilograms of uranium-235:
Metal barrels or drums (ICC 6L).
Other approved containers.
Packaging and shielding requirements of this subpart must be complied with.

(6) In column 6, insert:

Ferry stowage (AA).
Outside containers:
Authorized for not more than 14 kilograms of uranium-235:
Metal barrels or drums (ICC 6L).
Other approved containers.
Packaging and shielding requirements of this subpart must be complied with.

(7) In column 7, insert:

Ferry stowage (BB).
Outside containers:
Authorized for not more than 14 kilograms of uranium-235
Metal barrels or drums (ICC 6L).
Other approved containers.
Packaging and shielding requirements of this subpart must be complied with.

F. The entry "Radioactive materials as described under § 146.25 (a) and (b)" is amended by revising column 1 to read as follows:

Radioactive materials as described under § 146.25–25(a).

G. The entry "Radioactive materials as described under § 146.25–25(c)" is revoked.

Subpart 146.26—Detailed Regulations Governing Combustible Liquids

25. Section 146.26–35 is revised to read as follows:

§ 146.26–35 Use of power-operated industrial trucks in spaces containing combustible liquids.

(a) Any approved power-operated industrial truck (see § 146.09–15(b)) may be used in spaces in which combustible liquids are stowed, including the handling thereof, unless otherwise restricted by regulations in this part.

Subpart 146.27—Detailed Regulations Governing Hazardous Articles

26. In § 146.27–35, paragraphs (a) and (c) are revised. As amended, § 146.27–35 reads as follows:

§ 146.27–35 Use of power-operated industrial trucks in spaces containing hazardous articles.

(a) *Articles of a fibrous nature or bulk sulfur.* In a space in which packaged or baled hazardous articles of a fibrous nature or bulk sulfur are stowed, only approved power-operated industrial trucks of approved types EX, EE, GS, LPS, and DS (see § 146.09–15(b)) may be used for handling cargo including the handling of such packaged or baled hazardous articles of a fibrous nature or bulk sulfur.

(b) *Articles of a fibrous nature in closed vans or portable containers.* When hazardous articles of a fibrous nature are contained in closed cargo vans or closed portable containers and no other dangerous cargo is stowed in the hold or compartment, any standard commercial type power-operated industrial truck in safe operating condition and having minimum safety features (see § 146.09–15) may be used in the spaces.

(c) *Articles other than those of a fibrous nature.* In a space in which hazardous articles other than of a fibrous nature are stowed, any approved power-operated industrial truck (see § 146.09–15(b)) may be used to handle cargo, including the handling of such hazardous articles other than of a fibrous nature.

Subpart 146.29—Detailed Regulations Governing the Transportation of Military Explosives and Hazardous Munitions on Board Vessels

27. Section 146.29–5 is revised to read as follows:

§ 146.29–5 Regulations not applicable.

Sections 146.02–11, 146.02–21, 146.03–3, 146.06–9, 146.06–12 to 146.06–15, inclusive, 146.09–1 to 146.09–6, inclusive, 146.10–6 (b), 146.20–15 to 146.20–51, inclusive, 146.20–85, 146.20–87, 146.20–90, 146.20–100 to 146.20–300, inclusive, 146.23–25 (a), (b), 146.24–55, the entries "Chemical ammunition containing Class 'A' poisons, liquids or gases," "Chemical ammunition containing Class 'B' poisons, liquids or gases," and "chemical ammunition containing Class 'C' liquids, gases, or solids" appearing in §§ 146.25–100, 146.25–200, and 146.25–300; 146.27–5 to 146.27–20, inclusive, 146.27–30 and 146.27–100 are hereby declared inapplicable to the transportation of military explosives.

28. In § 146.29–11, paragraph (c) is revised to read as follows (subparagraphs (11), (25), (42), (43), (44), and (54) are new):

§ 146.29–11 Definitions and abbreviations.

For the purpose of the regulations in this subpart, certain words, phrases, and abbreviations are defined as follows:

* * * * *

(c) *Related terms*—(1) *Adjacent hold; hold adjacent.* Any hold which has as one of its boundaries a permanent steel bulkhead that is common, either partially or in its entirety, to another hold shall be termed "adjacent hold" or "hold adjacent" to the focal hold. This shall not be construed as meaning a hold above or a hold below said hold nor shall it include a hold that is situated diagonally from said hold and has only a corner as a common boundary.

(2) *Any hold above.* "Any hold above" shall mean any hold that is partially or entirely in the same vertical plane over another hold even though there may be a hold or holds intervening.

(3) *Any hold below.* "Any hold below" shall mean any hold that is partially or entirely in the same vertical plane under another hold even though there may be a hold or holds intervening.

(4) *Ammunition for cannon.* Ammunition for cannon is fixed, semifixed, or separate loading ammunition which is fired from a cannon, mortar, gun, howitzer, or recoilless rifle.

(5) *Ammunition for cannon with empty projectiles, inert-loaded projectiles, solid projectiles or without projectiles, and catapult charges exceeding 2 inches in diameter.* Ammunition for cannon with empty projectiles, inert-loaded projectiles, solid projectiles, or without projectiles, and catapult charges exceeding 2 inches in diameter, is fixed ammunition assembled in a unit consisting of the cartridge case containing the propelling charge and primer with empty, inert-loaded, or solid projectiles, or without projectiles, which is fired from a cannon, mortar, gun, howitzer, or recoilless rifle.

(6) *Ammunition for cannon with projectiles.* Ammunition for cannon with explosive projectiles, gas projectiles, smoke projectiles, incendiary projectiles, or illuminating projectiles is fixed ammunition assembled in a unit consisting of the cartridge case containing the propelling charge and primer, and the projectiles, fuzed or unfuzed.

(7) *Ammunition for small arms with explosive bullets or explosive projectiles.* Ammunition for small arms with explosive bullets or ammunition for small arms with explosive projectiles is fixed ammunition to be used in machine guns or similar fire arms and consists of a metallic cartridge case, the primer and the propelling charge, with explosive bullet or explosive projectile with or without detonating fuze, the component parts necessary for one firing being all in one assembly.

(8) *Boosters, bursters, and supplementary charges.* Boosters and supplementary charges consist of a casing containing a high explosive and are used to increase the intensity of explosion of the detonator of a detonating fuze. Bursters consist of a casing containing a high explosive and are used to rupture a projectile or bomb to permit release of its contents.

(9) *Cargo hold.* A cargo hold is a space allotted entirely to the carriage of cargo and is bounded by permanent steel bulkheads, decks and the shell of the vessel;

the deck openings being provided with means of effectively closing the hold against the weather, and in the case of superimposed holds, effectively closing off each hold.

(10) *Cargo net.* A cargo net is a net made of fiber or wire rope and used as a means of handling loose or package cargo to and from the hold of a vessel.

(11) *Cargo transporter.* This term covers a noncollapsible reusable, steel shipping box of not over 135 cubic feet capacity, used for shipping separate items of cargo as a unit, and handled aboard ship by "lift-on/lift-off" methods. Such container must conform to Military Specification MIL-B-21560. It is commonly referred to as "Conex Box."

(12) *Chemical ammunition.* Chemical ammunition used in warfare is all kinds of explosive chemical projectiles, bombs, grenades, mines, etc., loaded with toxic, tear, or other gas, smoke or incendiary agent, also such miscellaneous apparatus as cloud-gas cylinders, smoke generators, etc., that may be utilized to project chemicals.

(13) *Compartment.* A compartment is any space formed by permanent steel bulkheads and the ship's side and decks. The limits of a compartment are determined by the integrity of the bulkheads, shell, or decks forming its boundaries. Access openings fitted with doors, hatch covers (steel or wood) or bolted plates are accepted as preserving the integrity of deck, bulkhead, or shell.

(14) *Complete round.* A complete round of "cannon ammunition," "artillery ammunition," or "gun ammunition" includes ammunitions used in cannon or gun of caliber 0.75 in. and above. It includes complete round with components. The complete round comprises all of the components necessary to fire the cannon or gun once. These components are, in general, the projectile, fuze, propelling charge, and primer. Depending upon both the type of propelling charge and method of loading the required components into the weapon, complete rounds of "cannon ammunition," "artillery ammunition," or "gun ammunition" are described as fixed, semifixed, separated, or separate loading ammunition.

(15) *Definitions of other dangerous articles.* For definitions of:

(i) Inflammable liquids, see § 146.21-1.

(ii) Inflammable solids and oxidizing materials, see § 146.22-1.

(iii) Corrosive liquids, see § 146.23-1.

(iv) Compressed gases, see § 146.24-1.

(v) Poisons, Class A, see § 146.25-5; Class B, see § 146.25-10; Class C, see § 146.25-15; Class D, see § 146.25-20.

(vi) Combustible liquids, see § 146.26-1.

(vii) Hazardous articles, see § 146.-27-1.

(16) *Detonating fuzes.* (i) Detonating fuzes, Class A are used in the military service to detonate the high explosive bursting charges of projectiles, mines, bombs, torpedoes, and grenades. In addition to a powerful detonator, they may contain several ounces of a high explosive, such as tetryl or dry nitrocellulose, all assembled in a heavy steel envelope. They may also contain a small amount of radioactive component.

(ii) Detonating fuzes, Class C are those that are so made and packed that they will not cause functioning of other fuzes, explosives, or explosive devices in the same or adjacent containers.

(17) *Division bulkhead.* (i) When part of a compartment or hold is utilized for the stowage of military explosives, the remaining portion of such compartment or hold may be utilized for the stowage of general cargo provided a temporary wooden bulkhead is constructed in the compartment or hold to completely divide and protect the stowage of military explosives from the general cargo. The scantlings and construction of such bulkheads shall be as follows: For tween deck compartments or holds construction shall be of commercial 2-inch boarding, secured on 4" x 6" uprights spaced not to exceed 30 inches center to center. For lower holds construction shall be of commercial 2-inch boarding secured on 6" x 6" uprights, spaced not more than 24 inches center to center. Random widths of boarding may be used. The boarding shall be close fitted edge to edge and butt to butt to form a smooth surface facing the explosive stowage. Nails shall not protrude beyond the surface of the boarding.

(18) *Dunnage.* Lumber of not less than 1-inch commercial thickness laid over tank tops, decks, or against bulkheads, frames, plating, ladders, etc., or used for filling up voids, or fitted around the cargo for the purpose of preventing damage during transportation.

(19) *Explosive bombs.* Explosive bombs are metal or other containers filled with explosives. They are used in warfare and include aeroplane bombs and depth bombs.

(20) *Explosive mines.* Explosive mines are metal or other containers filled with a high explosive.

(21) *Explosive projectiles.* Explosive projectiles are projectiles, guided missiles with warheads, warheads, or rocket heads, loaded with explosives or bursting charges, with or without other materials, for use in cannons, guns, tubes, mortars, or other firing or launching devices.

(22) *Explosive torpedoes.* Explosive torpedoes, such as are used in warfare, are metal devices containing a means of propulsion and a quantity of high explosives.

(23) *Fixed ammunition.* Fixed ammunition describes "cannon ammunition," "artillery ammunition," or "gun ammunition" of the type comprising a cartridge case with primer, a propellant charge and a projectile (fuzed or unfuzed) all of these components being assembled as a unit for one firing.

(24) *Grenades.* Grenades, hand or rifle, are small metal or other containers designed to be thrown by hand or projected from a rifle. They are filled with an explosive or a liquid, gas or solid material such as a toxic or tear gas or an incendiary or smoke producing material and a bursting charge.

(25) *Guided missile ammunition.* Includes missile or rocket bodies and related components; warheads (explosives, chemical practice, etc.); propellants (liquid or solid); fuzes and arming devices with associated components; fins, stabilizers, or control surfaces; either or all of which may be in complete round configuration or as separately packaged items, as issued to assemble complete rounds as fired.

(26) *Hatch.* An opening in the weather deck and all decks below in the same vertical plane through which cargo, etc., is passed. This term is also used in the regulations in this subpart to designate the entire series of holds served through one weather deck hatch.

(27) *Igniters.* Igniters consist of fiberboard, plastic, paper, or metal tubes containing a small quantity of igniting compound which is ignited by the action of a primer, pull wire, or scratch composition.

(28) *Jet thrust units (jato), explosive (Class A), or igniters jet thrust (jato), explosive (Class A).* Jet thrust units (jato), explosive (Class A), are metal cylinders containing a mixture of chemicals capable of burning rapidly and producing considerable pressure. Under certain conditions the chemical fuel with which the unit is loaded may explode. Jet thrust units are designed to be ignited by an electric igniter. They are used to assist airplanes to take off. Igniters jet thrust (jato), explosive (Class A), and igniters, rocket motor, Class A explosives, are devices consisting of an electrically operated or remotely controlled ignition element and a charge of fast burning composition meeting the definition prescribed for Type I Class A explosives assembled in a unit for use in igniting the propelling charge of jet thrust units or rocket motors. Under certain conditions the burning composition may explode.

(29) *Jet thrust units (jato), Class B explosives.* Jet thrust units (jato), Class B explosives are metal cylinders containing a mixture of chemicals capable of burning rapidly and producing considerable pressure. Jet thrust units are designed to be ignited by an electric igniter They are used to assist airplanes to take off.

(i) Igniters, jet thrust (jato), Class B explosives, and igniters, rocket motor, Class B explosives are devices consisting of an electrically operated or remotely controlled ignition element and a fast-burning composition which functions by rapid burning rather than detonation, assembled in a unit for use in igniting the propelling charge of jet trust units, rocket motors, or rocket engines.

(ii) Starter cartridges, jet engine, Class B explosives, consist of plastic and/or rubber cases, each containing a pressed cylindrical block of propellant explosive and having in the top of the case a small compartment that encloses an electric squib, small amounts of black powder and smokeless powder, which constitute an igniter. The starter cartridge is used to activate a mechanical starter for jet engines.

(30) *On deck.* "On deck" means that that article may be stowed on the open weather deck of the vessel.

(31) *Overstow.* The term "overstow" as used in these regulations shall mean to stow directly over.

(32) *Pallet.* A pallet is a tray so designed as to be picked up by a fork truck or similar cargo handling equipment. Pallets are not usually equipped with sideboards.

(33) *Palletized unit.* Individual packages or unpackaged items stowed in a compact mass upon a pallet or skids and banded together and to the pallet or skids by metal straps to form a unit consisting of pallet and packages.

(34) *Partition bulkhead.* A partition bulkhead is a temporary bulkhead constructed of commercial 1-inch lumber of widths not less than 4 inches, secured alternately on both sides of the uprights and spaced not more than 6 inches apart. The uprights are at least 3" x 4" size, spaced not more than 30 inches apart.

(35) *Percussion fuzes, combination fuzes, and time fuzes.* Percussion fuzes, combination fuzes, and time fuzes are devices designed to ignite powder charges of ammunition or to initiate an intermediate charge (booster) in projectiles, bombs, etc. When such fuzes are assembled with booster charges they are properly described as "detonating fuzes."

(36) *Permitted explosives.* Permitted explosives as used in § 146.29–100 shall mean explosives that have compatibility in accordance with the admixture charts in § 146.29–99.

(37) *Pieplate.* A pieplate is the term generally applied to a round, oval, or hexagonal tray without sideboards.

(38) *Primers.* Primers are devices used to ignite the powder charges of ammunition. For small-arms ammunition, the primers are "small-arms primers" or "percussion caps."

(39) *Propellant explosives, solid, Class A.* Propellant explosives, Class A, are solid chemicals or solid chemical mixtures which are designed to function by rapid combustion of successive layers, generally with little or no smoke. The combustion is controlled by composition, size, and form of grain. Propellant explosives, Class A, include some types of smokeless powder for small arms and some types of solid propellant explosives for jet thrust units, rockets, or other devices. Any propellant explosive is Class A which detonates in any one out of five trials when tested in the packages in which it is offered for transportation. In conducting the test, one propellant container shall be surrounded by inert loaded containers of the same weight, including one inert container placed on top of the propellant container. The propellant shall be ignited by means of a commercial electric squib placed within 4 inches of the bottom of the container. The presence of a crater and absence of flame shall be considered as evidences of detonation.

(40) *Propellant explosives, solid Class B.* Propellant explosives, Class B, are solid chemicals or solid chemical mixtures which function by rapid combustion of successive layers, generally with little or no smoke. The combustion is controlled by composition, size, and form of grain. Any propellant explosive is Class B which fails to detonate in five trials when tested in the packages in which it is offered for shipment. (See subparagraph (39) of this paragraph for test.) Propellant explosives, Class B, includes smokeless powder for cannon, smokeless powder or solid propellant explosives for rockets, jet thrust units, or other devices. Black powder is not included in this classification.

(41) *Rocket ammunition.* Rocket ammunition is fixed ammunition which is fired from a tube, launcher, rails, trough, or other device as distinguished from cannon ammunition which is fired from a cannon, gun, or mortar.

(42) *Rocket motor, Class A explosives.* Rocket motor, Class A explosives, is a device containing a propelling charge and consisting of one or more continuous type combustion unit(s) closed at one end (closure may be an igniter with a thrust plate) and with a nozzle(s) at the other end. (The rocket motor carries its own solid oxidizer-fuel combination.) The propelling charge consists of a mixture of chemicals and/or chemical compounds which when ignited is capable of burning rapidly and producing considerable pressure and which will sustain a detonation. Rocket motors, Class A explosives, should be nonpropulsive in shipment (see subdivision (i) of this subparagraph). Rocket motors, Class A explosives, are designed to be ignited by an electrically actuated device which may be an igniter, or by other means. They are used to propel and/or provide thrust for guided missiles, rockets, or spacecraft.

(i) A rocket motor to be considered "nonpropulsive" must be capable of unrestrained burning and will not move appreciably in any direction when ignited by any means. Blast deflectors, thrust neutralizers, or other similar devices must be proven adequate by test prior to authorization for use.

(43) *Rocket motor, Class B explosives.* Rocket motor, Class B explosives, is a device containing a propelling charge and consisting of one or more continuous type combustion unit(s), closed at one end (closure may be an igniter with a thrust plate) and with a nozzle(s) at the other end. The propelling charge consists of a mixture of chemicals and/or chemical compounds which when ignited is capable of burning rapidly and producing considerable pressure and which will not sustain a detonation. (The rocket motor carries its own solid oxidizer-fuel combination.) Rocket motors, Class B explosives, should be nonpropulsive in shipment (see subdivision (i) of this subparagraph). Rocket motors, Class B explosives, are designed to be ignited by an electrically actuated device which may be an igniter, or by other means. They are used to propel and/or provide thrust for guided missiles, rockets, or spacecraft.

(i) A rocket motor to be considered "nonpropulsive" must be capable of unrestrained burning and will not move appreciably in any direction when ignited by any means. Blast deflectors, thrust neutralizers or other similar devices must be proven by test prior to authorization for use.

(44) *Rocket engine (liquid), Class B explosives.* Rocket engine (liquid), Class B explosives is a complete, self-contained rocket propulsion unit which contains an oxidizer and a fuel, each separated by an alumium or stainless steel wall of not less than 0.250 inch thickness. Double walls are permitted. Pressurization of the propellant tanks is by use of a gas generator. The ignition source must be in an unarmed position for shipment. Rocket engines (liquid) are used to propel or provide thrust for rockets, missiles or spacecraft.

(45) *Semifixed ammunition (Army).* Complete rounds composed of a projectile (fuzed) and a cartridge case with a primer and propellant charged which is in a cloth bag or bags of small size. The base of the projectile fits free in the neck of the cartridge case and may be readily detached from the cartridge case. The round is loaded into the cannon with the projectile assembled to the cartridge case and is handled similarly to fixed ammunition in loading. It may be packed with the projectile disassembled from the cartridge case containing the propellant. The projectile is usually assembled loosely in the cartridge case and is packed in the same individual container.

(46) *Semifixed ammunition (Navy).* Semifixed ammunition is ammunition in which the primer and the propellant charge are firmly secured in the cartridge case with the projectile separate from the cartridge case. The propellant charge is loaded loosely in the cartridge case, differing in this respect from that of the Army which is loaded in a bag. The end of the cartridge case is sealed with a prepared plug or disc which is fired with the powder and is usually shipped stowed in a metal tank. The projectile is shipped separate. The U.S. Army may refer to this ammunition as separate loading ammunition.

(47) *Separate loading ammunition.* Complete rounds in which the separate components—projectile, propellant charge, and primer—are loaded into the cannon or gun separately are known as "separate loading ammunition." Although the propellant charge may be in one section, it is usually divided into parts with each part assembled in a bag packed in outside shipping containers which may be of wood, fiber, or metal.

(48) *Separated ammunition.* In this type of ammunition, the propellant is sealed in a metal cartridge case into which a primer is fitted and this assembly is called a propelling charge. It is separate from the projectile with which it is used but the projectile and the propelling charge are loaded into the weapon in one operation. Separated ammunition is generally used in medium caliber antiaircraft and antitank guns.

(49) *Shelter deck space.* A shelter deck space is a space available for cargo situated above the uppermost complete continuous deck (main deck) and the deck next above. Normally this space contains no permanent watertight trans-

verse bulkheads except at its forward and aft extremities.

(50) *Shoring.* Shoring is a method of securing cargo against movement sidewise or downward. In this subpart it describes the use of timbers fitted vertically or at an angle to the side of the stowage. It may also describe the use of timber to support a stowage from moving downward.

(51) *Skipboard.* A skipboard is the term generally applied to a rectangular or square tray without sideboards.

(52) *Small arms ammunition.* Small arms ammunition is fixed ammunition consisting of a metallic, plastic composition, or paper cartridge case, a primer, and a propelling charge, with or without bullet, projectile, shot, tear gas material, tracer components, or incendiary compositions, or mixtures, and is further limited to the following:

(i) Ammunition designed to be fired from a pistol, revolver, rifle, or shotgun held by the hand or to the shoulder.

(ii) Ammunition of caliber less than 20 millimeters with incendiary, solid, inert or empty projectiles (with or without tracers), designed to be fired from machine guns or cannons.

(iii) Blank cartridges including canopy remover cartridges, starter cartridges, and seat ejector cartridges, containing not more than 500 grains of propellant powder, provided that such cartridges shall be incapable of functioning en masse as a result of the functioning of any single cartridge in the container or as a result of exposure to external flame.

(iv) Twenty millimeter ammunition without explosive projectiles or incendiary projectiles.

(53) *Special fireworks.* Special fireworks are manufactured articles designed primarily for the purpose of producing visible or audible pyrotechnic effects by combustion or explosion. Examples are toy torpedoes, railway torpedoes, some firecrackers and salutes, exhibition display pieces, aeroplane flares, illuminating projectiles, incendiary projectiles, or incendiary bombs and smoke projectiles or smoke bombs fuzed or unfuzed and containing expelling charges but without bursting charges, hand or rifle grenades with ignition elements but not containing bursting charges, flash powders in inner units not exceeding 2 ounces each, flash sheets in interior packages, flash powder or spreader cartridges containing not over 72 grains of flash powder each and flash cartridges consisting of a paper cartridge shell, small-arms primer, and flash composition, not exceeding 180 grains all assembled in one piece. Fireworks must be in a finished state, exclusive of mere ornamentation, as supplied to the retail trade and must be so constructed and packed that loose pyrotechnic composition will not be present in packages in transportation.

(54) *Superstructure.* Superstructure is a structure of a vessel located on the weather deck integral with the deck and of substantial weight and size to provide physical separation of cargoes, e.g., deck house, mast house, bridge structure, etc.

(55) *The hold above.* "The hold above" shall be a hold immediately above another hold having its deck, either partially or in its entirety, common to the overhead of the hold below.

(56) *The hold below.* "The hold below" shall be a hold immediately below another hold having its overhead, either partially or in its entirety, common to the deck of the hold above.

(57) *Tomming.* Tomming is a method of securing cargo against displacement of movement upwardly.

(58) *Tray.* A tray is any flat group of boards securely fastened to bearers in order to provide a level surface for the loading of cargo. Trays are given various names, those applied in some ports differing from those in other ports, according to (i) shape, (ii) method of securing to cargo handling gear, or (iii) use or lack of sideboards in conjunction with the tray.

(59) *Tracer fuzes and tracers.* Tracer fuzes and tracers are devices which are attached to projectiles and contain a slow-burning composition to show the flight of projectiles at night.

(60) *Tween deck height.* (i) For the purpose of load calculations the height of a tween deck is ascertained by measuring the distance from the heel of the overhead deck beam to the heel of the underdeck beam. (The thickness of the plating forming the deck is not deducted from the height.)

(ii) For height of a tween deck affected by the sheer of a deck measure as above at both the forward and after ends of the hold and divide the sum of these heights by two.

(61) *Tween deck hold.* A tween deck hold is a space located between the weather deck and the lower hold.

(62) *Type "A" dunnage floor.* A type "A" dunnage floor shall be constructed of two layers of commercial 1-inch dunnage of widths not less than 4 inches fitted as close as possible, edge to edge, and butt to butt, the top course being laid crosswise to the lower course, or of a single layer of 2-inch lumber of widths not less than that 6 inches fitted as close as possible edge to edge, and butt to butt. When using 2-inch lumber over hatch boards the lumber shall be laid fore and aft.

(63) *Type "B" dunnage floor.* A type "B" dunnage floor shall be constructed of one layer of commercial 1-inch thick dunnage of widths not less than 4 inches fitted as close as possible, edge to edge, and butt to butt.

(64) *Van.* A van is a cargo-carrying body other than a tank container which may be designed and constructed to be removed from a chassis or wheels for water transportation. Military explosives, permitted to be transported in vans, are limited to permitted explosives of Coast Guard Classes I and II, with the exception of Class II–J.

* * * * *

29. Section 146.29–13 is revised to read as follows:

§ 146.29–13 Permit for handling military explosives.

(a) Shipments of military explosives and military lethal chemicals except material covered in § 146.29–100 as Coast Guard Class I shall not be laden on, handled nor discharged from any vessel at any port or place in the United States, its territories or possessions (not including the Panama Canal Zone) until authorization has been obtained by the owner, agent, charterer, master, or person in charge of the vessel from the District Commander of the U.S. Coast Guard, Captain of the Port, or other officer designated by the District Commander.

(b) Before a permit is issued authorizing the loading, handling or discharging of military explosives or military lethal chemicals in accordance with paragraph (a) of this section, the permittee shall file a written application for a permit authorizing the loading or handling or discharging. When filed, the application for loading or handling shall be accompanied by a preliminary manifest of all explosives or other dangerous articles comprising the cargo of the vessel together with a preliminary cargo stowage plan showing the proposed stowage of all such cargo. Changes in final stowage from that shown in the preliminary cargo stowage plan may be made upon approval of the issuing officer.

30. A new § 146.29–14 is added, to read as follows:

§ 146.29–14 Dangerous cargo manifest, list or stowage plan.

(a) Any vessel transporting or storing military explosives or hazardous munitions shall, when in navigable waters of the United States, have on board a dangerous cargo manifest, list, or stowage plan.

(b) The information required to appear on the dangerous cargo manifest, list, or stowage plan by the provisions of paragraph (c) of this section shall be the information actually furnished to the vessel by the shipper of the military explosives or hazardous munitions upon his bill of lading or other shipping paper. This shipping order shall comply with the provisions of § 146.05–12.

(c) This manifest, list, or stowage plan shall show thereon the following information:

(1) Name of vessel and official number.

(2) Nationality of vessel.

(3) True shipping name of the substance as given in the commodity list of the regulations in this part (see § 146.04–5). Noun descriptions must be used.

(4) Tonnage in bulk shipment or the number and description of the outside containers and their gross weight.

(5) Classifications of the substances in accordance with §§ 146.04–5 and 146.29–100.

(6) ICC label applied to the package if any required.

(7) The stowage provided for the substances on board the vessel.

(8) Signature of the Master or other officer of the vessel authorized by the Master to sign for him.

(d) Vessels carrying other dangerous cargoes may incorporate this manifest, list, or stowage plan with the dangerous cargo manifest, list, or stowage plan required by the provisions of § 146.06–12.

(e) The manifest, list, or stowage plan aboard the vessel shall be produced upon demand of the Commandant of the Coast Guard or his authorized representative.

(f) Owners, charterers, or agents of vessels transporting or storing military explosives or hazardous munitions shall retain ashore for 1 year a copy of the manifest, list, or stowage plan and shall produce said manifest or list in accordance with the provisions of § 146.02–22.

(g) Manifests for storage vessels shall be prepared according to the provisions of § 146.06–20.

31. In § 146.29–29, paragraph (c) is revised to read as follows:

§ 146.29–29 Smoking.

* * * * *

(c) The Captain of the Port may approve a room aboard ship to be a designated "Smoking room for the ship's personnel only," while at a pier or anchorage; provided the necessary approved firefighting equipment is at hand and portholes, vents, and doors are effectively screened with approved screening and electric cigarette lighting devices without open flame are provided.

32. In § 146.29–35, paragraph (b) is revised to read as follows:

§ 146.29–35 Lights, tools, and portable equipment.

* * * * *

(b) Portable lights shall be so installed as to prevent any part of the light or its cable from coming in contact with the deck or the cargo. A hanging portable light shall not be suspended from its cord but shall be fitted with a gantline so installed that no strain is carried by the light cable. No portable light shall be taken into a hold or compartment in which the stowage of ammunition or explosives has been completed without prior approval by the Captain of the Port or his representative. A portable light and light cord that is permitted in a hold shall: be installed in a manner which will prevent the light cord from coming into contact with the ship's metal surfaces; be guarded and protected from damage that may be caused by the ship's working gear or stevedore handling equipment; and shall not be permitted to be in bearing with any of the ammunition, explosives or hazardous munitions or containers thereof.

* * * * *

33. In § 146.29–39, paragraphs (c) and (m) are revised to read as follows:

§ 146.29–39 Handling and slinging of explosives.

* * * * *

(c) Classes III, VI, VIII, and IXC shall be lowered carefully onto a mattress or other shock absorbing material.

* * * * *

(m) Bombs shall not be handled by the lifting lug or suspension lugs.

* * * * *

34. In § 146.29–51, paragraph (b) is revised to read as follows:

§ 146.29–51 Stowage on board vessels.

* * * * *

(b) Mixed stowage of ammunition or explosives in bulk with other ammunition or explosives, or other dangerous articles or substances, or combustible liquids or hazardous articles shall be in conformity with the provisions of the explosives and hazardous munitions admixture charts, § 146.29–99, the classification, handling, and stowage chart § 146.29–100 and other applicable specific provisions of this subpart. A military explosive or hazardous munition shall not be stowed in the same van or cargo transporter with any other explosive or dangerous article with which it is incompatible according to the regulations in this part. Stowage of vans containing military explosives and hazardous munitions shall follow the compatibility requirements of §§ 146.29–99 and 146.29–100.

* * * * *

35. In § 146.29–57, paragraph (e) is revised to read as follows:

§ 146.29–57 "On deck" stowage.

* * * * *

(e) Deck boxes, portable magazines, cargo transporters, or vans containing military explosives shall meet the requirements of this section when stowed "On deck." Compatibility of the explosives within the deck box, portable magazine, cargo transporters or van shall be in accordance with §§ 146.29–99 and 146.29–100. A deck box, portable magazine, cargo transporters, or van containing permitted military explosives shall be separated from other deck boxes, portable magazines, cargo transporters or vans containing permitted explosives of incompatible classes by the superstructure or if the height of the container does not exceed that of the hatch coaming, by the weather deck hatch. Fire plugs and sounding pipes and access ways shall be maintained free and clear.

36. In § 146.29–59, the introductory sentence in paragraph (d) and subparagraph (5) are revised to read as follows:

§ 146.29–59 Stowage adjacent to other dangerous articles.

* * * * *

(d) *Military vehicles and privately owned vehicles shipped by, for, or to the U.S. Department of Defense with electrolyte.* Notwithstanding the provisions of §§ 146.23–1 to 146.23–100, electrolyte of not over 47 percent strength (39° Baume) may be accepted for transportation and be stowed on board vessels carrying military explosives under the following conditions of packing:

* * * * *

(5) Military vehicles and privately owned vehicles shipped by, for, or to the U.S. Department of Defense (crated or uncrated) containing an electrolyte storage battery shall not be stowed in the same hold over military explosives stowed therein. Such vehicles may be stowed in the same hold under or alongside of military explosives stowed therein: *Provided*, That all the applicable provisions of this section and § 146.29–61 are observed: *And provided further*, That the vehicles are processed, the fuel tank drained dry, the battery terminal leads disconnected, taped, and protected against short circuit.

* * * * *

37. In § 146.29–61, paragraph (a) is revised to read as follows:

§ 146.29–61 Stowage with nondangerous cargo in the same hold.

(a) Military explosives that are stowed in the same hold with nondangerous cargo shall be protected from damage likely to be caused by heavy nondangerous cargo. Shafting, steel bar, steel shapes, pipe, heavy machinery, vehicles (uncrated), and similar types of cargo shall, when stowed in the same hold with military explosives be so isolated or dunnaged or secured as to prevent damage to military explosives or magazines containing said substances, or temporary bulkheads protecting explosive stowages, under any conditions likely to be encountered during the voyage.

* * * * *

38. In § 146.29–73, paragraph (c) is revised to read as follows:

§ 146.29–73 Preparation of magazines, decks, hatches and holds for handling military explosives.

* * * * *

(c) The hatches or cargo ports opening into a compartment in which military explosives are stowed shall be kept closed at all times except during the operation of loading or unloading of the compartments or during periods of short duration (of 2 hours or less) for such as lunchbreaks and railcar and truck switching or between shifts on a two- or three-shift daily operation. During the period of such stoppages the hold shall be protected as prescribed by the Captain of the Port. Hatches covered with wooden covers shall be securely closed with tarpaulins.

* * * * *

39. In § 146.29–75, the introductory sentence in paragraph (b) is revised to read as follows:

§ 146.29–75 Location of magazines and ammunition stowage.

* * * * *

(b) When it is necessary to construct a magazine or to stow ammunition adjacent to the engine room, boiler room or coal bunker bulkheads, or the engine or boiler room uptakes or casings, the following provisions shall be complied with except in the stowage of small arms ammunition without explosive bullets:

* * * * *

40. In § 146.29–81, paragraphs (b) and (e) are revised to read as follows:

§ 146.29–81 Magazine Stowage A.

* * * * *

(b) Magazines constructed of steel shall have the whole of the interior thoroughly protected by wood dunnage of a minimum thickness of ¾ inch. This lining may be installed during the progress of the stowage. Metal stanchions within the magazines shall be boxed with wood of a thickness of not less than ¾ inch. Boxing of portable nonferrous dunnage system stanchions is not required. Bulkhead stiffeners or other structural members extending into the stowage spaces shall not be protected by dunnaging but shall be completely boarded over. When bare steel decks or tank tops are utilized to form the floor of a magazine, a wooden floor consisting of at least two layers of commercial 1-inch thick dunnaging shall be laid, the top course being laid crosswise to the lower course. When steel decks or tank tops are originally fitted with a wood flooring or are celled, it shall be necessary to fit one course of dunnage. All flooring formed by these methods shall be laid with commercial 1-inch lumber of widths not less than 4 inches, fitted as close as possible, edge to edge and butt to butt.

* * * * *

(e) When a Class A magazine measures more than 40 feet in any direction, a partition bulkhead shall be fitted within the magazine as near half length as practicable, extending from the deck to at least the top of the stowage. Such partition bulkhead shall be constructed to the same scantlings as the sides of the magazine, except the boardings may be spaced not more than 6 inches apart alternately on both sides of the uprights. This bulkhead shall be constructed before loading commences and care shall be excerised that nail points do not protude beyond the surface of the boarding. Such partition bulkheads are not required in magazines using the U.S. Navy nonferrous metal dunnage system.

* * * * *

41. In § 146.29–85, paragraph (h) is revised to read as follows:

§ 146.29–85 Chemical ammunition stowage.

* * * * *

(h) Before entering a deep tank, lower hold or other compartment containing chemical ammunition the air inside the compartment must be tested by competent personnel to ascertain if leakage has taken place. If leakage has occurred, the operation of removing the ammunition or chemical agent shall be conducted by skilled personnel, preferably representatives of the appropriate Department of Defense technical service.

42. A new § 146.29–90 is added, to read as follows:

§ 146.29–90 Use of cargo transporters (Conex Box) specification MIL–B–21560.

Cargo transporters, complying with the specification MIL–B–21560, may be used for the transportation of military explosives and hazardous munitions subject to the following conditions:

(a) Only Type I transporters (capacity 135 cu. ft.) shall be used. Type II may only be used under special authority of the Commandant of the Coast Guard.

(b) The load content shall not exceed 7,800 pounds, equally distributed.

(c) Prior to filling, each transporter is required to be thoroughly inspected by an authorized representative of the shipping activity. Special attention shall be given to the inspection of the corner posts, floor system, the lower 8 inches of the side and end panels, doors, and door latches. A record of this inspection shall be maintained by the shipping installation for a period of 1 year after the shipment leaves the installation or activity.

(d) Lifting shall be accomplished in a manner which will support the floor system. When slings or wire ropes are used, they shall be placed under the container to support the floor system.

(e) The cargo handling gear must be of a design capable of handling a working load at least 50 percent greater than the actual weight of the unit comprising the draft.

(f) The master, owner, charterer, agent, or other person in charge of the vessel shall require the shipper or his agent, or the delivering carrier to furnish a copy of the shipper's shipping order, shipping paper, bill of lading, manifest, or other memorandum, or a waybill prepared from information furnished in the shipper's shipping order bearing the required certification before accepting cargo transporters containing military explosives or hazardous munitions. This shipping paper shall have entered upon it the proper and definite name and class of the commodity or commodities contained therein according to §§ 146.04–5 and 146.29–100, the total quantity by weight; the label applied, if required; and the identification number of the transporter.

(g) Cargo transporters shall carry the legend "Explosives—Keep Lights and Fire Away", or if hazardous munitions are being shipped "Hazardous Munitions—Keep Lights and Fire Away" as well as the Coast Guard class or classes of military explosives or hazardous munitions stowed therein, e.g., "Coast Guard Class II–H." Letters shall be at least 3 inches high in contrasting color with the background.

(h) The master or other person in charge of the vessel shall assign an officer of the vessel to supervise the acceptance and stowage of the transporters containing military explosives or hazardous munitions. This officer shall examine the transporters for signs of leaking, damage to the container, or sifting of contents. Any transporter found to be damaged, leaking, or sifting shall not be accepted for transportation.

(i) Cargo transporters containing any military explosives or hazardous munitions may be opened by a duly authorized representative of the Coast Guard for inspection to determine compliance with the regulations applicable to such shipments.

43. In § 146.29–93, paragraph (a)(1) is revised. As amended, § 146.29–93(a) reads as follows:

§ 146.29–93 Stowage of blasting caps, detonators, primer detonators, etc.

Stowage of Classes III, VI, and VIII type ammunition shall conform to the provisions of §§ 146.29–99 and 146.29–100, and to the following requirements:

(a) Class VIII ammunition, when stowed on board the same vessel with Classes II, IV, V, or VII military explosives, shall be separated as follows:

(1) With a permanent steel deck or bulkhead intervening, the separation shall not be less than 10 feet in any direction except where there exist additional intervening permanent steel decks or bulkheads in which case the distance requirement may be reduced by 50 percent.

(2) Without a permanent steel deck or bulkhead intervening, the separation shall not be less than 25 feet in any direction.

* * * * *

§ 146.29–99 [Amended]

44. Section 146.29–99 is amended as follows:

A. A new Note H is added to paragraph (c) to read as follows:

NOTE H: May be stowed together if the two classes are separated by a partition bulkhead or a type "A" dunnage floor.

B. Chart A—*Compatibility Chart for Various Classes of Military Explosives and Hazardous Munitions* is revised to read as follows:

CHART A—COMPATIBILITY CHART FOR VARIOUS CLASSES OF MILITARY EXPLOSIVES AND HAZARDOUS MUNITIONS

Legend: *Refers to different ICC classes: F.L., F.G., Cor. L., Oxy. M., etc. ● Shall NOT be stowed together. □ May be stowed together. A, B, C, D, E, F, G, and H—Check notes in § 146.29-99 for proper stowage.

I.C.C. class		Class	I	II-A	II-B	II-C	II-D	II-E	II-F	II-G	II-H	II-J	III	IV	V	VI	VII	VIII	IX-A	IX-B	IX-C	X-A	X-B	X-C	X-D	X-E	XI-A	XI-B	XI-C	XI-D	Class
C	Small-arms ammunition w/o explosive bullets, mechanical time fuze and like items	I	□	□	□	□	□	□	□	□	□	D	□	□	□	□	□	□	□	□	H	●	●	●	□	□	●	●	I
B	Bulk propellants, such as ballistite, cordite, FNH, NH, and NC powder, "Made-up bag charges" in outside shipping containers	II-A	□	□	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	□	□	□	⊕	□	⊕	⊕	⊕	⊕	⊕	⊕	●	C	C	⊕	⊕	II-A
B	Fixed ammunition w/o explosive projectiles and like items	II-B	□	□	●	□	●	□	B	●	●	D	□	□	□	□	□	⊕	⊕	⊕	⊕	⊕	⊕	●	H	●	●	●	II-B
B or C	Pyrotechnics (fireworks)	II-C	□	⊕	□	●	□	●	A	⊕	⊕	D	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	●	⊕	⊕	⊕	⊕	II-C
*Var.	Chemical ammunition—WP or PWP filled (solid)	II-D	□	⊕	⊕	⊕	●	□	B	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	●	⊕	⊕	⊕	⊕	II-D
*Var.	Chemical ammunition—HC filled (solid)	II-E	□	⊕	□	□	□	●	A	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	●	⊕	⊕	⊕	⊕	II-E
*Var.	Chemical ammunition—FS or FM filled smoke (liquid)	II-F	□	⊕	B	A	⊕	A	□	A	⊕	⊕	B	B	B	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	●	□	□	⊕	⊕	II-F
*Var.	Chemical ammunition—IM, NP, or PT filled, incendiary composition (oil gel)	II-G	□	●	●	●	●	□	A	□	●	D	●	●	●	●	●	●	●	●	●	●	●	●	□	□	●	●	II-G
None	Chemical ammunition—water activated	II-H	●	●	●	●	●	●	●	●	□	●	●	●	●	●	●	●	●	●	●	●	●	●	●	□	●	●	II-H
*Var.	Chemical ammunition—TH filled incendiary composition (solid)	II-J	D	●	D	D	●	●	●	D	●	□	●	D	⊕	⊕	●	⊕	⊕	⊕	⊕	⊕	⊕	●	⊕	⊕	⊕	⊕	II-J
B or C	Fuzes, PD w/o booster; fuzes AT mine (nonchemical) w/o booster; fuzes, bomb tail w/o booster; fuzes, tracer; primers; primer detonators, etc.	III	□	●	□	⊕	⊕	□	A	⊕	⊕	⊕	□	□	□	□	⊕	□	⊕	⊕	⊕	⊕	⊕	●	⊕	⊕	⊕	⊕	III
A	Fixed and semifixed ammunition with explosive loaded projectile	IV	□	□	□	⊕	●	⊕	B	⊕	⊕	D	□	□	□	□	⊕	⊕	⊕	⊕	H	⊕	⊕	●	⊕	□	⊕	⊕	IV
A	Separate loading projectiles filled with explosive "D"	V	□	□	□	⊕	●	●	B	⊕	●	●	□	□	□	□	⊕	⊕	⊕	E	⊕	⊕	●	●	●	□	⊕	●	V
A	BD fuzes; PD fuzes with booster; bomb fuzes with booster; rocket fuzes with booster; and like items	VI	□	⊕	□	⊕	⊕	⊕	⊕	⊕	⊕	⊕	□	□	□	□	⊕	□	⊕	⊕	⊕	⊕	⊕	●	⊕	⊕	⊕	⊕	VI
A	Separate loading proj. filled with HE other than explosive "D"	VII	□	□	□	⊕	⊕	⊕	B	⊕	⊕	⊕	□	□	□	□	⊕	□	⊕	⊕	H	⊕	⊕	●	⊕	□	⊕	⊕	VII
A or C	Blasting caps; detonators; AT mine fuzes (chemical); etc	VIII	□	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	□	⊕	⊕	□	⊕	□	⊕	⊕	⊕	⊕	⊕	●	⊕	⊕	⊕	⊕	VIII
A or B	Explosives in bulk, such as black powder, propellant explosives for small arms, etc.	IX-A	□	□	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	□	⊕	⊕	⊕	⊕	●	⊕	⊕	⊕	⊕	IX-A
A	High explosives, such as dynamite, TNT, demolition blocks, etc.	IX-B	□	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	□	⊕	⊕	⊕	●	⊕	⊕	⊕	⊕	IX-B
A	Initiating and priming explosives in bulk	IX-C	□	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	□	⊕	⊕	●	⊕	⊕	⊕	⊕	IX-C
A	Explosive bombs, mines, torpedoes, etc	X-A	□	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	E	⊕	E	⊕	⊕	⊕	□	□	⊕	●	⊕	⊕	⊕	⊕	X-A
A	Explosive bombs, mines, etc. packed with fuze in integral package	X-B	H	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕	□	□	⊕	●	⊕	⊕	⊕	⊕	X-B
A	Guided missiles with solid propellant motors, w, w/o HE warhead	X-C	⊕	●	H	⊕	⊕	⊕	⊕	⊕	⊕	⊕	H	⊕	⊕	H	⊕	⊕	⊕	⊕	⊕	⊕	⊕	●	⊕	⊕	⊕	⊕	X-C
A	Guided missiles with liquid petroleum fueled propellant motors, HE warhead	X-D	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	□	●	●	●	●	X-D
A	Rocket engines liquid	X-E	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	□	●	●	●	X-E
A or Pois. A	Chemical ammunition—lethal	XI-A	□	C	●	●	●	●	□	□	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	□	⊕	●	XI-A
A or Pois. C	Chemical ammunition—nonlethal	XI-B	□	C	□	●	●	●	□	□	●	●	●	□	□	●	□	●	●	●	●	●	●	●	●	□	□	⊕	⊕	XI-B
*Var.	Fuels in containers for missile and rocket engines	XI-C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	F	●	XI-C
*Var.	Oxidizers in containers for missile and rocket engines	XI-D	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	F	●	XI-D

§ 146.29–100 [Amended]

45. Section 146.29–100 *Classification, handling, and stowage chart* is amended as follows:

A. Amend "IIB Fixed ammunition without explosive projectiles and like items" as follows:

(1) In column 2 delete "Grenade, hand, practice".

B. Amend "IID Chemical ammunition, etc." as follows:

(1) In columns 2 and 6 delete "Chemical Corps" and insert in lieu thereof:

Army Materiel Command.

C. Amend "IIE Chemical ammunition, etc." as follows:

(1) In columns 2 and 6 delete "Chemical Corps" and insert in lieu thereof:

Army Materiel Command.

D. Amend "IIF Chemical ammunition etc." as follows:

(1) In columns 2 and 6 delete "Chemical Corps" and insert in lieu thereof:

Army Materiel Command.

E. Amend "IIG Chemical ammunition etc." as follows:

(1) In column 2 delete in third paragraph and in "Note" the words "Chemical Corps" and insert in lieu thereof:

Army Materiel Command.

(2) In column 2 after third paragraph add:

Napalm B in containers identified as DOD BLU–27/B, BLU–29/B, and BLU–32/B Anti-Pam bombs overpacked in outside shipping crate may be shipped as "Flammable Liquid, N.O.S."

F. Amend "IIJ Chemical ammunition etc." as follows:

(1) In column 2 in the "Note" delete "Chemical Corps" and insert in lieu thereof:

Army Materiel Command.

G. Amend "III Fuzes, etc." as follows:

(1) In column 2 insert in order after "Fuze, TSQ w/o booster":

Grenade, hand, practice.

H. Amend "V Separate loading projectiles filled with Explosive 'D' " as follows:

(1) In column 6 revise the second paragraph to read as follows:

AMMUNITION STOWAGE OR PORTABLE MAGAZINE

* * * * *

May be stowed in the same deep tank, lower hold, or tween deck hold with Class II–F ammunition provided the Class II–F is bottom stowed and provided further that no other class of military explosives is stowed in the hold below or in the tank below.

* * * * *

I. Amend "X–B Explosive bombs, etc." as follows:

(1) In column 6 add a new first paragraph to read as follows:

AMMUNITION STOWAGE OR PORTABLE MAGAZINE

Class XB items shall not be stowed in the same hold or compartment with Class I items unless the two classes are separated by a partition bulkhead or a type "A" dunnage floor.

* * * * *

J. Amend "X–C Guided missiles, etc." as follows:

(1) In column 6 revise the first paragraph to read as follows:

AMMUNITION STOWAGE OR PORTABLE MAGAZINE

Class XC items shall not be stowed in the same hold or compartment with Classes II–B, IV, and VII items unless the two classes are separated by a partition bulkhead or a type "A" dunnage floor.

* * * * *

K. Add a new entry "X–E Rocket engines, liquid" after "X–D Guided missiles, etc." to read as follows:

(1) In column 1, insert:

X–E.

Rocket engines, liquid.

(2) In column 2, insert:

Rocket engines containing a liquid propellant, a hypergolic fuel-oxidizer combination which is shipped separately packaged within the rocket engine. The igniter booster is also shipped as an integral part of the rocket engine. Includes but is not limited to: Bullpup rocket engine.

(3) In column 3, insert:

Rocket engines (liquid), Class B explosives.

(4) In column 4, insert:

B.

(5) In column 5, insert:

Fire can cause the engines to liberate dangerous toxic gases. Such gases (or smoke) are dangerous if allowed to become airborne contaminators, or to be ingested or inhaled into the body.

Use copious amounts of water to combat fires or leakers. Fire extinguishers containing carbon dioxide, carbon tetrachloride, or dry powder should not be used.

Normal fire-fighting equipment is less useful, since the blanketing or smothering is less effective because the oxidizers supply their own oxygen.

In case of fire, or if leaky containers are discovered, personnel should use protective clothing.

(6) In column 6, insert:

"On deck protected."

Ammunition stowage in a lower hold or deep tank if the space is equipped with a sprinkler system.

Shipments stowed on deck shall be last-on/first-off shipments on board the vessel.

Adequate fire hose, adjacent to the stowage area, shall be readily accessible to ship's personnel.

The on deck stowage shall be isolated from other deck cargo. It shall be separated from other military explosives, hazardous munitions or dangerous cargoes on deck by the bridge structure. Stowage on deck shall not be over the square of the hatch.

(7) In column 7, insert:

1. Observe containers for evidence of leakage and reject any showing such signs.

2. Handle by hand or mechanical means using extreme care against damage to the container.

3. Do not drop, drag, tumble, walk, or otherwise subject packages to shock.

4. Packages shall be stowed in the position indicated by their markings.

5. Do not use chute in loading or unloading.

6. In the event of damage to a container resulting in leakage or spillage, stop operations, clear area of all personnel, render first aid to personnel affected and spray copious amount of water on area affected. Decontamination must be handled by personnel trained in this procedure and equipped with protective clothing and self-contained breathing apparatus.

7. Four complete sets of acid-resistant protective clothing, including a self-contained breathing apparatus of an approved type, must always be immediately available for emergency use. In this operation, as well as all other operations involving fuming nitric acid, treadle type of deluge showers and a container of approximately 5 percent solution of acetic acid or strong vinegar must be available.

8. Weight per draft shall not exceed 2,400 pounds plus 10 percent using a 5-ton boom.

9. Must be loaded first on the side away from the pier so that motors being loaded do not pass over those already loaded.

L. Amend "XI–A Chemical ammunition, lethal" as follows:

(1) In column 2, third paragraph and "Note," and in column 6 paragraphs 1 and 3, delete "Chemical Corps" or "U.S. Army Chemical Corps" and insert in lieu thereof:

Army Materiel Command.

(2) In column 7 delete "appropriate Army technical service (Chemical or Ordnance Corps) or Navy Department" and insert in lieu thereof:

Appropriate Department of Defense technical service.

M. Amend "XI–B Chemical ammunition, nonlethal" as follows:

(1) In column 2 third paragraph and "Note", and in column 6 delete "Chemical Corps" and insert in lieu thereof:

Army Materiel Command.

(2) In column 7 delete "appropriate Army technical service (Chemical or Ordnance Corps) or Navy Department" and insert in lieu thereof:

Appropriate Department of Defense technical service.

N. Amend "XI–C Fuels in containers for guided missiles and rockets" as follows:

(1) In column 7 delete "appropriate Army technical service (Chemcial or Ordnance Corps) or Navy Department" and insert in lieu thereof:

Appropriate Department of Defense technical service.

O. Amend "XI–D Oxidizers in containers for guided missiles and rockets" as follows:

(1) In column 7 delete "appropriate Army technical service (Chemical Corps or Ordnance Corps) or Navy Department" and insert in lieu thereof:

Appropriate Department of Defense technical service.

The following amendments are made to Part 147 of Title 46:

1. The authority note 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, sec. 3, 68 Stat. 675; 46 U.S.C. 375, 416, 170, 50 U.S.C. 198; E.O. 11239, July 31, 1965, 30 F.R. 9671; Department of Transportation Order 1100.1, Mar. 31, 1967, 46 CFR 1.4(a)(2), 32 F.R. 5606.

Subpart 147.03—Detailed Regulations Governing Certification of Ships' Stores and Supplies

2. Section 147.03–8 is amended by adding a new paragraph (b). As amended § 147.03–8 reads as follows:

§ 147.03–8 Refusal to certify.

The Commandant of the Coast Guard may, for cause, withhold the certification of a product or an article; and reserves the right to require, before a certification is issued, that the trade name under which the article will be marked, be altered to avoid error, duplication or to provide clarity.

(b) The Commandant of the Coast Guard may withhold the original certification of a product or an article or the renewal of the certification while requiring changes on the label, including trade name, or additional information which he deems pertinent for certification.

3. Section 147.03–10 is amended by revising paragraph (b) and adding a new paragraph (c). As amended, § 147.03–10 reads as follows:

§ 147.03–10 False statement.

(a) The manufacturer or duly authorized agent submitting an application for certification of any product or article, who sets forth or causes to be set forth therein any false statement for the purpose of securing certification, shall be deemed to be in violation of the regulations in this part.

(b) Any manufacturer or agent, or any sales agent, of any product or article, who sets forth or causes to be set forth, a false statement regarding certification, shall be deemed to be in violation of the regulations in this part and shall be refused certification.

(c) Any manufacturer or agent, or any sales agent, of any product or article, who sets forth or causes to be set forth a false statement in his original application which is discovered after the certificate has been granted shall be subject to having the certification canceled. Any false statement given in the annual renewal statement shall also be cause for cancellation of certification.

§ 147.05–100 [Amended]

4. Section 147.05–100 *Table S—Classification: Ships' stores and supplies of a dangerous nature* is amended by adding after "Motion picture film" a new entry "Nitrogen" as follows:

(1) In column 1 insert:

Nitrogen.

(2) In column 2, insert:

Cylinders shall conform to the Interstate Commerce Commission specifications and bear the specification marking, and date of test, and shall be fitted with a valve protection cap.

(3) In column 3, insert:

Green gas.

(4) In column 4, 5, 6, and 7 insert:

Stowage: On or under deck in a cool, ventilated location.

Dated: May 29, 1967.

W. J. SMITH,
Admiral, U.S. Coast Guard,
Commandant.

[F.R. Doc. 67–6255; Filed, June 6, 1967; 8:45 a.m.]