

Case # HTS	Article	Petitioner	Action Taken
88-HS-5 2917.19.23	Maleic Acid	Government of Mexico	Petition Granted.
88-HS-6 2918.19.60	Malic Acid	Government of Mexico	Petition Granted.
88-HS-7 3817.10.00	Mixed Alkylbenzenes	Shrieve Chemical Products, Inc.	Petition Granted.
88-HS-8 7019.10.40	Glass Rovings	PPG Industries	Petition Granted.
88-HS-9 9607.20.00	Parts of slide fasteners	Government of Colombia	Petition Granted.
88-HS-10 9607.20.40	Slides	Government of Colombia	Petition Granted.
88-HS-11 9607.20.80	Parts, nesi	Government of Colombia	Petition Granted.
B. Petitions to remove products from the list of eligible articles for the Generalized System of Preferences.			
88-HS-12 2804.69.10	Silicon Metal	The Ferroalloys Association	Petition Denied.
88-HS-13 2916.39.15	Ibuprofen	Ethyl Corporation	Petition Denied.
88-HS-15 7307.93.30	Steel pipe fittings	US Butt-weld Fitting Committee	Petition Granted.
88-HS-16 9025.11.20	Clinical Thermometers	Florida Medical Industries	Petition Denied.
C. Petitions to remove duty-free status from a beneficiary developing country for a product on the list of eligible articles under the Generalized System of Preferences.			
88-HS-14 2933.90.47	Hexamine	Wright Chemical Corporation	Graduate Mexico.
D. Petitions to waive competitive need limits for a country ¹ for a product on the list of eligible articles for the Generalized System of Preferences.			
88-HS-17 9503.50 (Mexico)	Toy balloons	American Imports	Petition Denied.
88-HS-18 9503.90.60 (Mexico)	Toys, no spring	Mattel, Inc., Kenner Parker Toys, Inc.	Petition Denied.
88-HS-19 9503.90.70 (Mexico)	Toys, nesi	Mattel, Inc., Kenner Parker Toys, Inc.	Petition Granted.

¹ Countries subject to petition are identified under HTS number.

[FR Doc. 89-9578 Filed 4-20-89; 8:45 am]

BILLING CODE 3190-01-M

Sunshine Act Meetings

Federal Register

Vol. 54, No. 76

Friday, April 21, 1989

This section of the FEDERAL REGISTER contains notices of meetings published under the "Government in the Sunshine Act" (Pub. L. 94-409) 5 U.S.C. 552b(e)(3).

COMMODITY FUTURES TRADING COMMISSION

TIME AND DATE: 11:30 a.m., Friday, April 21, 1989.

PLACE: 2033 K St., NW., Washington, DC, 8th Floor Hearing Room.

STATUS: Closed.

MATTERS TO BE CONSIDERED: Enforcement matters.

CONTACT PERSON FOR MORE INFORMATION: Jean A. Webb, 254-6314.

Jean A. Webb,
Secretary of the Commission.

[FR Doc. 89-9717 Filed 4-19-89; 10:41 am]

BILLING CODE 6351-01-M

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

April 18, 1989.

TIME AND DATE: 10:00 a.m., Thursday, April 27, 1989.

PLACE: Room 600, 1730 K Street, NW., Washington, DC.

STATUS: Open.

MATTERS TO BE CONSIDERED: The Commission will hear oral argument on the following:

1. *Otis Elevator Company*, Docket Nos. PENN 87-25-R, etc. and PENN 86-262. (Issues include whether Otis Elevator is an independent contractor under the Mine Act and thus liable for violations of several mandatory safety standards.)

Any person intending to attend this argument who requires special accessibility features and/or auxiliary aids, such as sign language interpreters, must inform the Commission in advance of those needs. Subject to 29 CFR 2706.150(a)(3) and 2706.160(e).

TIME AND DATE: Immediately following Oral Argument.

STATUS: Closed [Pursuant to 5 U.S.C. 552b(c)(10)].

MATTERS TO BE CONSIDERED: The Commission will consider and act upon the following:

1. *Otis Elevator Co.*, Docket No. PENN 87-25-R, etc. (See ORAL Argument listing)
2. *Pennsylvania Electric Company*, Docket

No. PENN 88-227. (Issues include consideration of procedural motions.)

It was determined by a unanimous vote of Commissioners that this portion be closed.

CONTACT PERSON FOR MORE INFORMATION: Jean Ellen (202) 653-5629/ (202) 566-2673 for TDD Relay

Jean H. Ellen,

Agenda Clerk.

[FR Doc. 89-9744 Filed 4-19-89; 1:13 pm]

BILLING CODE 6735-01-M

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

April 18, 1989.

Change in Previously Scheduled Meeting

TIME AND DATE: The meeting previously scheduled for Wednesday, April 19, 1989 has been changed to Wednesday, April 26, 1989 at 10:00 a.m.

PLACE: Room 600, 1730 K Street, NW., Washington, DC.

STATUS: Part Open & Part Closed [Pursuant to 5 U.S.C. 552b(c)(10)].

MATTERS TO BE CONSIDERED: The Commission will consider and act upon the following:

1. In open meeting: *Secretary of Labor on behalf of Jerry Dale Aleshire, et al. v. Westmoreland Coal Co.*, Docket No. WEVA 84-344-D. (Issues include whether the judge erred in finding that the operator did not discriminate against the complainant miners under Section 105(c) of the Mine Act. 30 U.S.C. 815(c)(1).)
2. In closed meeting: *BethEnergy Mines, Inc.*, Docket No. PENN 87-94, etc. (Issues include whether BethEnergy violated 30 CFR 75.1704.)

Any person intending to attend the open portion of this meeting who requires special accessibility features and/or auxiliary aids, such as sign language interpreters, must inform the Commission in advance of those needs. Subject to 29 CFR 2706.150(a)(3) and 2706.160(d).

It was determined by a unanimous vote of Commissioners that BethEnergy be considered in closed session.

CONTACT PERSON FOR MORE INFORMATION: Jean Ellen (202) 653-5629/ (202) 566-2673 for TDD Relay.

Jean H. Ellen,

Agenda Clerk.

[FR Doc. 89-9745 Filed 4-19-89; 1:13 pm]

BILLING CODE 6735-01-M

FEDERAL RESERVE SYSTEM BOARD OF GOVERNORS

TIME AND DATE: 10:00 a.m., Wednesday, April 26, 1989.

PLACE: Marriner S. Eccles Federal Reserve Board Building, C Street entrance between 20th and 21st Streets, NW., Washington, DC 20551.

STATUS: Closed.

MATTERS TO BE CONSIDERED:

1. Proposals regarding the Board's compensation program.
2. Personnel actions (appointments, promotions, assignments, reassignments, and salary actions) involving individual Federal Reserve System employees.
3. Any items carried forward from a previously announced meeting.

CONTACT PERSON FOR MORE

INFORMATION: Mr. Joseph R. Coyne, Assistant to the Board; (202) 452-3204. You may call (202) 452-3207, beginning at approximately 5 p.m. two business days before this meeting, for a recorded announcement of bank and bank holding company applications scheduled for the meeting.

Date: April 18, 1989.

Jennifer J. Johnson,

Associate Secretary of the Board.

[FR Doc. 89-9724 Filed 4-19-89; 11:13 am]

BILLING CODE 6210-01-M

UNITED STATES POSTAL SERVICE BOARD OF GOVERNORS

Notice of a Meeting

The Board of Governors of the United States Postal Service, pursuant to its Bylaws (39 CFR 7.5) and the Government in the Sunshine Act (5 U.S.C. 552b), hereby gives notice that it intends to hold a meeting at 8:30 a.m. on Tuesday, May 2, 1989, at U.S. Postal Service Headquarters, 475 L'Enfant Plaza, SW., Washington, DC, in the Benjamin Franklin Room. The meeting is open to the public. The Board expects to discuss the matters stated in the agenda which is set forth below. Requests for information about the meeting should be addressed to the Secretary of the Board, David F. Harris, at (202) 268-4800.

There will also be a session of the Board on Monday, May 1, 1989, but it will consist entirely of briefings and is not open to the public.

Agenda

Tuesday Session

May 2, 8:30 a.m. (Open)

1. Minutes of the Previous Meeting, April 3-4, 1989.

2. Remarks of the Postmaster General.
3. Quarterly Report on National Service Performance. (Ann McK. Robinson, Consumer Advocate)
4. Quarterly Report on Financial Performance. (Comer S. Coppie, Senior Assistant Postmaster General, Finance Group)
5. Report of the Chief Postal Inspector and Semiannual Consumer Protection Report. (Charles R. Clauson, Chief Postal Inspector)

6. Advanced Bar Code Concept. (Peter A. Jacobson, Assistant Postmaster General, Engineering and Technical Support Department)
7. Training and Development Mission. (Elwood A. Mosley, Assistant Postmaster General, Training and Development Department)
8. Capital Investments:
 - a. Manhattan, New York, GMP. (Stanley W. Smith, Assistant Postmaster General, Facilities Department)

- b. San Diego Site Acquisition. (Mr. Smith)
- c. Truck Tractors. (Arthur I. Porwick, Assistant Postmaster General, Operations Systems and Performance Department)

9. Tentative Agenda for June 5-6, 1989, meeting in Philadelphia, Pennsylvania.

David F. Harris,

Secretary.

[FR Doc. 89-9783 Filed 4-19-89; 2:18 pm]

BILLING CODE 7710-12-M

Corrections

Federal Register

Vol. 54, No. 76

Friday, April 21, 1989

This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

DEPARTMENT OF AGRICULTURE

Rural Electrification Administration

7 CFR Parts 1745 and 1749

General Policies, Types of Loans, Loan Requirements - Telephone Program; Preloan Procedures and Requirements - Telephone Program

Correction

In rule document 89-7459 beginning on page 13345 in the issue of Monday, April 3, 1989, make the following corrections:

On page 13349, in the third column, in the second complete paragraph, in the second line, insert "that" between "section" and "RTB".

On page 13350, in the third column, in the last paragraph, in the sixth line, "establishing" should read "established".

§ 1745.2 [Corrected]

On page 13351, in the third column, in § 1745.2(g), in the seventh line, "geRE" should read "RE".

§ 1745.32 [Corrected]

On page 13354, in the first column, in § 1745.32(b), in the first line, "New worth" should read "Net worth".

On the same page, in the second column, in § 1745.32(i)(3), in the eighth line, "icorrective" should read "corrective".

§ 1749.32 [Corrected]

On page 13358, in the 1st column, in § 1749.32(b), in the 10th line, "position" should read "postloan".

§ 1749.42 [Corrected]

On page 13360, in the first column, in § 1749.42(a)(3), in the second line, "will" should read "until".

BILLING CODE 1505-01-D

DEPARTMENT OF COMMERCE

International Trade Administration

[A-588-802]

Final Determination of Sales at Less Than Fair Value: 3.5" Microdisks and Coated Media Thereof From Japan

Correction

In notice document 89-3203 beginning on page 6433 in the issue of Friday, February 10, 1989, make the following correction:

On page 6434, in the 3rd column, in the 3rd complete paragraph, in the 12th line, "include" should read "exclude".

BILLING CODE 1505-01-D

COMMITTEE FOR THE IMPLEMENTATION OF TEXTILE AGREEMENTS

Establishment of an Import Limit on Certain Cotton Textile Products Produced or Manufactured in India

Correction

In notice document 89-7457 appearing on page 13100 in the issue of Thursday, March 30, 1989, make the following correction:

On page 13100, in the third column, in footnote 3, in the first line, "only HTS numbers" should read "all HTS numbers except".

BILLING CODE 1505-01-D

DEPARTMENT OF DEFENSE

GENERAL SERVICES ADMINISTRATION

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

48 CFR Part 52

[Federal Acquisition Circular 84-45]

Federal Acquisition Regulation (FAR); Prompt Pay and Definition of A-E Services

Correction

In rule document 89-7614 beginning on page 13332 in the issue of Friday, March 31, 1989, make the following correction:

§ 52.232-27 [Corrected]

On page 13341, in § 52.232-27, in the clause, in the second column, in paragraph (c)(2), in the third line, "more" should read "made".

BILLING CODE 1505-01-D

GENERAL SERVICES ADMINISTRATION

41 CFR Part 101-7

[FPMR Temp. Reg. A-33]

Federal and State Tax Tables To Be Used for Calculating 1989 Relocation Income Tax (RIT) Allowance Payments

Correction

In rule document 89-7119 beginning on page 12448 in the issue of Monday, March 27, 1989, make the following corrections:

1. In Attachment B, on page 12449, in the table, in the first table-column, in entry 50, in the first line, the corresponding entry in the third table-column should read "6.93".

2. In Attachment C, on page 12450, in the italic heading, "Tax Year 1988" should read "Tax Year 1989".

BILLING CODE 1505-01-D

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[AZ-920-09-4212-12; A-22435]

Arizona; Opening Order

Correction

In notice document 89-8269 beginning on page 14169 in the issue of Friday, April 7, 1989, make the following correction:

On page 14170, in the first column, under "T. 13 S. R. 32 E.", the first line should read "Sec. 4, NE¼, SE¼SW¼, N¼SE¼, SW¼SE¼;".

BILLING CODE 1505-01-D

DEPARTMENT OF STATE

Bureau of Personnel

22 CFR Part 192

[Final Rule 108.884]

Victims of Terrorism Compensation

Correction

In rule document 89-7282 beginning on page 12596 in the issue of Tuesday, March 28, 1989, make the following correction:

§ 192.52 [Corrected]

On page 12603, in the 2nd column, in § 192.52(c)(3), in the 11th line, "6%" should read "66%".

BILLING CODE 1505-01-D

DEPARTMENT OF THE TREASURY

Custom Service

19 CFR Part 171

**Proposed Customs Regulations
Amendments Concerning Seizure of
Property for Possession of Controlled
Substances***Correction*

In proposed rule document 89-8296 beginning on page 14242 in the issue of Monday, April 10, 1989, make the following corrections:

§ 171.12 [Corrected]

1. On page 14244, in the second column, in § 171.12(b), in the fourth line, "§ 171.32(d)" should read "§ 171.52(d)".

2. On the same page, in the third column, in amendatory instruction 4., the third line should read "Subpart F consisting of § § 171.51 through 171.55".

§ 171.51 [Corrected]

3. On page 14245, in the 1st column in § 171.51(b)(5), in the 19th line, "day" should read "may".

4. On the same page, in the same column, in § 171.51(b)(6), in the third line from the bottom of the page, "substances" should read "substance".

5. On the same page, in the third column, in § 171.51(b)(6)(ii)(F), in the last line "describe" should read "distribute".

BILLING CODE 1505-01-D

DEPARTMENT OF THE TREASURY

OFFICE OF THE COMPTROLLER

IN CHARGE

WASHINGTON, D. C.

Report of the Comptroller in Charge of the Department of the Treasury, for the year ending June 30, 1901.

The report of the Comptroller in Charge of the Department of the Treasury, for the year ending June 30, 1901, is herewith submitted. It contains a statement of the receipts and disbursements of the Department, and a statement of the assets and liabilities of the Department, as of June 30, 1901.

The receipts of the Department for the year ending June 30, 1901, were \$1,000,000,000, and the disbursements were \$950,000,000. The assets of the Department as of June 30, 1901, were \$1,000,000,000, and the liabilities were \$950,000,000.

The report of the Comptroller in Charge of the Department of the Treasury, for the year ending June 30, 1901, is herewith submitted. It contains a statement of the receipts and disbursements of the Department, and a statement of the assets and liabilities of the Department, as of June 30, 1901.

The report of the Comptroller in Charge of the Department of the Treasury, for the year ending June 30, 1901, is herewith submitted. It contains a statement of the receipts and disbursements of the Department, and a statement of the assets and liabilities of the Department, as of June 30, 1901.

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The report of the Comptroller in Charge of the Department of the Treasury, for the year ending June 30, 1901, is herewith submitted. It contains a statement of the receipts and disbursements of the Department, and a statement of the assets and liabilities of the Department, as of June 30, 1901.

The report of the Comptroller in Charge of the Department of the Treasury, for the year ending June 30, 1901, is herewith submitted. It contains a statement of the receipts and disbursements of the Department, and a statement of the assets and liabilities of the Department, as of June 30, 1901.

The report of the Comptroller in Charge of the Department of the Treasury, for the year ending June 30, 1901, is herewith submitted. It contains a statement of the receipts and disbursements of the Department, and a statement of the assets and liabilities of the Department, as of June 30, 1901.

The report of the Comptroller in Charge of the Department of the Treasury, for the year ending June 30, 1901, is herewith submitted. It contains a statement of the receipts and disbursements of the Department, and a statement of the assets and liabilities of the Department, as of June 30, 1901.

The report of the Comptroller in Charge of the Department of the Treasury, for the year ending June 30, 1901, is herewith submitted. It contains a statement of the receipts and disbursements of the Department, and a statement of the assets and liabilities of the Department, as of June 30, 1901.

Fast Facts

Friday
April 21, 1989

Part II

Department of Transportation

Coast Guard

**46 CFR Parts 30, 31, 33, et al.
Lifesaving Equipment; Notice of
Proposed Rulemaking**

DEPARTMENT OF TRANSPORTATION

Coast Guard

46 CFR Parts 30, 31, 33, 35, 70, 71, 75, 78, 90, 91, 94, 97, 107, 108, 109, 112, 154, 160, 161, 167, 168, 188, 189, 192, 196, and 199

[CGD 84-069]

RIN 2115-AB72

Lifesaving Equipment

AGENCY: Coast Guard, DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: This notice proposes a complete revision of the lifesaving equipment regulations for tank vessels, cargo and miscellaneous vessels, mobile offshore drilling units, passenger vessels, nautical school ships, offshore supply vessels, and oceanographic research vessels. The primary purpose of the project is to implement the provisions of the new Chapter III of the Safety of Life at Sea Convention 1974, as amended in 1983, which came into force July 1, 1986. The proposed rules would also implement a number of recommendations arising from major vessel casualties. Lifesaving regulations for Great Lakes vessels and certain vessels in domestic trade which are not covered by the Safety of Life at Sea Convention would also be revised to require more effective lifesaving equipment. The proposed rules also reorganize the lifesaving regulations in order to simplify, clarify and reduce redundancy. A number of specification regulations for Coast Guard approved equipment will also have to be revised to meet the new Safety of Life at Sea Convention requirements. Those revisions will be proposed under additional notices at a later date.

DATE: Comments must be submitted on or before August 21, 1989.

ADDRESSES: 1. Comments should be mailed to the Commandant (G-LRA-2/21) (CGD 84-069), U.S. Coast Guard, 2100 Second St., SW., Washington, DC 20593-0001. Between the hours of 8:00 a.m. and 3:00 p.m. Monday through Friday, except holidays, comments may be delivered to, and are available for inspection and copying at, the Marine Safety Council (G-LRA-2/21) Room 2110, U.S. Coast Guard Headquarters, 2100 Second St., SW., Washington, DC, (202) 267-1477.

2. The revised Chapter III of the Safety of Life at Sea Convention is published by the International Maritime Organization (IMO) in Volume I of the "1983 Amendments to the International Convention for the Safety of Life at Sea,

1974" (SOLAS 74/83) (IMO publication 096 83.10.E). IMO also publishes the "Recommendation on Testing of Life-saving Appliances" and the "Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Life-saving Appliances and Arrangements" in a document titled "Testing and Evaluation of Life-saving Appliances" (IMO publication 982 85.02.E). These publications, and other IMO documents referred to in this notice, are available from:

a. The International Maritime Organization, Publications Section, 4 Albert Embankment, London SE1 7SR, England. The price of publication 096 83.10.E is £2.50 or the dollar equivalent at current exchange rates. Publication 982 85.02.E is £4.00. If payment is by check, it must be drawn on a United Kingdom bank. The price includes surface mail delivery. Airmail delivery is available at extra cost.

b. New York Nautical Instrument Co., 140 West Broadway, New York, NY 10013, (212) 962-4522.

c. Southwest Instrument Co., 235 W. Seventh St., San Pedro, CA 90731, (213) 519-7800.

d. Marine Education Textbooks, 124 North Van Ave., Houma, LA 70360-3866, (504) 879-3866.

e. Baker-Lyman & Co., 308 Magazine St., New Orleans, LA 70130, (504) 522-0745.

3. This notice refers to two technical reports. These reports have been placed in the docket for examination and copying. A limited number of single copies is available free of charge from Office of Marine Safety, Security, and Environmental Protection, Survival Systems Branch (G-MVI-3), U.S. Coast Guard Headquarters, 2100 Second St., SW., Washington, DC 20593-0001. The reports may also be purchased from the National Technical Information Service, Springfield, VA 22161, (703) 487-4650. The reports are:

a. "Shipboard Training and Maintenance for Merchant Vessel Survival Equipment", October 1979, Report No. CG-M-1-80, NTIS Accession number ADA100528.

b. "Transitory Fire Resistance of Tanker Lifeboats", February 1980, Report No. CG-D-19-80, NTIS Accession number ADA084257.

FOR FURTHER INFORMATION CONTACT: Mr. Robert Markle, Office of Marine Safety, Security, and Environmental Protection (G-MVI-3), Room 1404, U.S. Coast Guard Headquarters, 2100 Second St., SW., Washington, DC 20593-0001, (202) 267-1444. Normal office hours are between 7:30 a.m. and 4:00 p.m., Monday through Friday, except holidays.

SUPPLEMENTARY INFORMATION: On June 17, 1983, the IMO Maritime Safety Committee approved SOLAS 74/83, including a new Chapter III (Lifesaving Appliances and Arrangements). Under the SOLAS "tacit amendment" procedure, SOLAS 74/83 was deemed to be accepted on January 1, 1986. There were no objections from any contracting government. Therefore, the new requirements came into force on July 1, 1986 for the United States and all other contracting governments. Ships whose keels were laid or which are at a similar stage of construction on or after that date must comply in order to qualify for a SOLAS Safety Certificate. In addition, some of the operational requirements apply to existing ships on that date, and some equipment requirements will become effective for existing ships on July 1, 1991. SOLAS 74/83 applies to self-propelled merchant vessels on international voyages, except for (1) Cargo ships (including tankers) under 500 tons gross tonnage and (2) Fishing vessels.

The Coast Guard announced a series of meetings with the U.S. Lifesaving Manufacturers Association in the *Federal Register* of July 30, 1984 (CGD 84-051, 49 FR 30339). The implications of the SOLAS 74/83 Chapter III requirements on Coast Guard approved lifeboats, inflatable liferafts, and their launching equipment were discussed. Guidelines for lifesaving equipment manufacturers were also developed covering the additions and deviations from present regulations that are necessary to meet the new SOLAS 74/83 Chapter III. The rules proposed in this notice reflect some of the discussions held at those meetings.

The Coast Guard published an Advance Notice of Proposed Rulemaking (ANPRM) on this project on December 31, 1984 (49 FR 50745). That notice described the major changes under consideration, and invited comments on the proposals. Twenty-two parties offered a total of 106 separate comments. Those submitting comments included nine vessel operators, five industry associations, three drilling companies, two equipment manufacturers, one union, one shipbuilder, and one interested individual. Two of the comments generally supported the regulations, while none opposed the concept in general. The remainder of the comments either supported or opposed particular parts of the ANPRM, or suggested changes. These comments are covered in the appropriate sections of the following discussion on the rules proposed in this notice.

The Coast Guard also published an Advance Notice of Proposed Rulemaking (ANPRM) on Offshore Supply Vessel Regulations on February 14, 1983 (48 FR 6636, Coast Guard docket CGD 82-004). That notice proposed a new Subchapter L on offshore supply vessels that included lifesaving equipment requirements. This notice supercedes the lifesaving equipment proposals under CGD 82-004. A notice of proposed rulemaking (NPRM) on offshore supply vessels will be published later that will reference the regulations proposed in this notice for lifesaving equipment requirements. The inspection and operational requirements for lifesaving equipment on new offshore supply vessels will be addressed in the NPRM under CGD 82-004, taking into consideration the characteristics, methods of operation, and the nature of their service (see 46 U.S.C. 3306(f)).

The rules proposed in this notice do not cover small passenger vessels inspected under 46 CFR Subchapter T. Proposed lifesaving equipment regulations for small passenger vessels were published on January 30, 1989 (54 FR 4412) as part of a comprehensive project to revise Subchapter T (CGD 85-080, RIN 2115-AC22).

Interested persons are invited to participate in this rulemaking by submitting written views, data or arguments. Comments should include the name and address of the person making them, identify this Notice (CGD 84-069) and the specific section to which each comment applies, and give reasons for the comments. If an acknowledgment is desired, a stamped, self-addressed post card should be enclosed. The proposal may be changed in light of comments received. All comments received before the expiration of the comment period will be considered before final action is taken on this proposal.

No public hearing is planned, but one may be held if requested in writing and it is determined that the opportunity to make oral presentations will benefit the rulemaking process.

A regulatory information number (RIN) is assigned to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. The RIN number contained in the heading of this document can be used to cross reference this action with the Unified Agenda.

Drafting Information

The principal persons involved in drafting these regulations are Mr. Robert

Markle, Project Manager, and Lieutenant Commander Don M. Wrye, Project Attorney, Office of the Chief Counsel.

General Discussion of the Proposed Regulations

This notice proposes a complete revision of the vessel lifesaving equipment carriage regulations in CFR Title 46 for tank vessels, cargo and miscellaneous vessels, mobile offshore drilling units, passenger vessels, nautical school ships, offshore supply vessels, and oceanographic research vessels. The proposal consolidates the regulations into new Subchapter W of Title 46 which would replace most of the repetitive sections of the lifesaving equipment parts of the present vessel regulations, which would be deleted.

Specification regulations for Coast Guard approval of various items of lifesaving equipment, such as lifeboats, liferafts, lifejackets, flares, and others, also need to be revised to meet the new SOLAS 74/83 requirements. These revisions will be proposed in separate notices.

Some of the requirements of the SOLAS 74/83 Chapter III will require a number of changes to 46 CFR 113.30 on sound-powered telephone systems, 46 CFR 113.50 on emergency loudspeaker systems, and 46 CFR 113.65 on whistle operators. These revisions will be covered in a separate notice of proposed rulemaking on changes to Subchapter J of Title 46, "Electrical Engineering", to be published at a later date.

Although the proposed regulations are completely revised in format, their content is similar to the present regulations with the exceptions covered in the following discussions.

a. The proposed vessel regulations incorporate the changes required by SOLAS 74/83, Chapter III. Although the new Chapter III is much closer to U.S. regulations than the previous version, the U.S. regulations still describe more completely the onboard inspection requirements for approved lifesaving equipment. These existing provisions, which SOLAS 74/83 Chapter III does not cover, are generally retained. Persons who want to review the revised Chapter III should obtain Volume I of the "1983 Amendments to the International Convention for the Safety of Life at Sea, 1974" (see ADDRESSES section).

(1) Three of the comments on the ANPRM were to the effect that the U.S. regulations for vessels subject to SOLAS 74/83 should follow the SOLAS 74/83 requirements as closely as possible and should not include unilateral requirements that exceed the SOLAS 74/83 regulations. We agree with these

comments as a general principle. The regulations proposed in this notice do exceed SOLAS 74/83 requirements in a number of areas however, because the SOLAS 74/83 requirements are vague or do not address certain important safety problems. Proposed requirements that exceed SOLAS 74/83 regulations and that are not covered in present regulations are covered in the discussions that follow, along with the reasons why the regulation is being proposed. A derivation table is also included at the end of this preamble that shows the relationship of the regulations in this notice to existing regulations and to SOLAS 74/83. Comments are specifically requested on proposals which exceed or are not addressed in SOLAS 74/83. Most of these proposals are fully discussed in following sections of this notice, but the following is a summary of regulations proposed in this notice that would affect SOLAS vessels, but which are not covered in SOLAS 74/83:

Sections 199.15(f) and 199.135(c) would require each vessel equipped with a liferaft not served by a launching appliance, and each vessel equipped with an inflatable buoyant apparatus, to have rail or bulwark openings, or appropriate mounting arrangements.

Section 199.15(g) would require retrofitting of gravity davits.

Section 199.15(h) would require retrofitting of totally enclosed lifeboats.

Sections 199.15(i) and 199.310(b) would prohibit the use of new aluminum lifeboats on tank ships certificated to carry crude, product, chemicals, or liquified gases; having a flashpoint less than 60°C.

Section 199.15(l) would require all lifeboats to meet the propulsion power requirements in effect for all new Coast Guard approved lifeboats since 1965 (see 46 CFR 160.035-3(a)).

Section 199.25 explains the conditions under which the Officer in Charge, Marine Inspection (OCMI) may require specialized or additional lifesaving equipment.

Section 199.64 contains requirements for satellite Emergency Position Indicating Radio Beacons (EPIRBs) and Search and Rescue Radar Transponders (SARTs). These requirements are not in SOLAS 74/83, but are in a new set of SOLAS Amendments adopted in 1988 which completely revise the requirements for ship radiocommunications.

Section 199.110(d) would limit the amount of climbing necessary to reach the survival craft from the deck of the vessel.

Section 199.153(h) would require appropriate guards or other protection for falls subject to damage or fouling.

Section 199.153(j) clarifies the lowering speed for a lightly loaded survival craft. SOLAS 74/83 is not clear on this point, and could be interpreted as imposing a more stringent requirement.

Section 199.170(d) covers the need for the auxiliary line needed for use with a line throwing appliance.

Section 199.170(e) covers stowage of line throwing appliances.

Section 199.175(c)(24) would require two lifejackets to be carried in each lifeboat.

Section 199.175(c)(35) would require lifeboats to have a rainwater collection device.

Section 199.217(b) would require formation of an emergency squad on certain passenger vessels.

Section 199.272 would require each vessel with an inflatable liferaft stowed in a remote location to have enough lifejackets to equal the capacity of the liferaft stowed at the liferaft station.

Sections 199.273 and 199.640 would require immersion suits on all cargo ships and mobile offshore drilling units (MODUs) in colder waters, while SOLAS requires them only on vessels not equipped with totally enclosed lifeboats.

Section 199.650 contains several requirements for MODUs which have no counterpart in SOLAS 74/83, but do conform with a new version of the IMO MODU Code, now under consideration by IMO. The MODU Code interprets SOLAS for MODUs, which are a very specialized type of vessel.

(2) Two comments recommended that the regulations include the possibility for exemption from SOLAS 74/83 requirements that would not be appropriate for certain voyages, such as the exemption provisions under regulation 2 of SOLAS 74/83. We agree with these comments, but no new regulation is needed since these exemptions are provided for in existing 46 CFR 30.01-6, 70.05-10, and 90.05-10.

b. As part of the consolidation of the regulations, revised requirements for vessels not subject to SOLAS 74/83 are proposed in this notice. Wherever appropriate, proposed revisions for the vessels not subject to SOLAS 74/83 are consistent with the SOLAS requirements. Vessels not subject to SOLAS 74/83 are primarily nonself-propelled vessels, Great Lakes vessels, coastwise vessels, cargo and tank vessels under 500 tons gross tonnage, and other vessels not on international voyages. Mobile offshore drilling units (MODUs) are also covered in this notice.

Self-propelled MODUs are technically covered by SOLAS 74/83 when working in waters of a nation other than the nation where they are registered. The IMO has developed the Code for the Construction and Equipment of Mobile Offshore Drilling Units (MODU Code) to provide a level of safety equivalent to conventional vessels under SOLAS 74/83. U.S. MODUs are not required to meet the MODU Code, but if they operate in waters of another country, that country may require a MODU Code Certificate as a condition for their operation in those waters. Self-propelled MODUs on international voyages are ships under SOLAS 74/83, but most countries will accept MODU Code Certificates as an equivalence to SOLAS. For these reasons, the Coast Guard will issue a MODU Code Certificate to a MODU that meets the Code, if the operator requests it. The present MODU Code and a revision of the MODU Code presently under consideration by the members of IMO, are used as a basis for some of the revisions proposed in this notice. These are more completely discussed in a following section titled "Additional Requirements for Mobile Offshore Drilling Units."

(1) Two comments opposed the inclusion of MODUs into Subchapter W because the present Subchapter I-A of Title 46 on MODUs was intended to be a set of uniform, comprehensive regulations for MODUs, recognizing the significant difference between MODUs and other types of vessels. One of the comments added the suggestion that MODU revisions should be proposed separately, and should take into account the various types of MODUs. When Subchapter I-A was developed, it was intended to be a single comprehensive set of regulations for MODUs, like Subchapter D for tank vessels, Subchapter H for passenger vessels, and Subchapter I for cargo and miscellaneous vessels. This type of regulatory organization leads to extensive repetition since much of the general lifesaving requirements are the same for all vessels. Subchapter W can accommodate the special requirements for MODUs as well as for other vessels. A consolidation of regulations by subject matter, rather than by vessel type, has already been utilized in Subchapter F on Marine Engineering, Subchapter J on Electrical Engineering, and Subchapter S on Stability. Consequently, this proposed notice includes MODUs under Subchapter W.

(2) The same two comments expressed concern over the application of SOLAS 74/83 and the MODU Code to MODUs. One stated that the ANPRM implied that SOLAS 74/83 changes

would automatically be applied to MODUs, and pointed out that the MODU Code recognized the differences by establishing a level of safety equivalent to SOLAS. The comment noted that the U.S. is not bound to comply with the MODU Code since it, unlike SOLAS 74/83, is not a convention. The other comment supported making regulations for self-propelled MODUs consistent with the MODU Code, and did not want MODUs to be forced into complying with SOLAS 74/83 or required to meet requirements more onerous than the MODU Code. The requirements of SOLAS 74/83 that would apply to MODUs under the regulations proposed in this notice are general in nature and should apply to any vessel with lifesaving equipment. These regulations are in Part B of proposed Subchapter W. Regulations proposed in this notice that go beyond the requirements of SOLAS 74/83 and the MODU Code are completely discussed in the following section on "Additional Requirements for Mobile Offshore Drilling Units."

(3) One comment noted that the International Association of Drilling Contractors would sponsor a Second International Conference on Offshore Safety in March 1986, and suggested that a new regulatory scheme should not be put in place before the conference is concluded. The transactions of that conference were available and were reviewed in drafting this NPRM.

(4) Five comments on the ANPRM stated that the SOLAS 74/83 requirements should not be applied to nonself-propelled vessels and other vessels in various domestic services not subject to SOLAS 74/83. The comments expressed concern that this would generate excessive costs and requirements for unnecessary equipment. We agree that many of the SOLAS 74/83 requirements for oceangoing vessels in international trades are not appropriate for inland vessels and vessels trading solely within U.S. coastal waters, but many of the SOLAS 74/83 requirements are basic principles that apply to any vessel carrying lifesaving equipment. These are the SOLAS 74/83 requirements that are proposed as requirements for other vessels in this notice and they are generally not new requirements. Where a certain regulation is applicable only to vessels in certain services, the regulation clearly states the services to which it applies. As an example, see proposed § 199.10(b).

(5) One comment stated that the Coast Guard would be hard-pressed to prove that revised equipment requirements

would have prevented any fatalities on the Great Lakes. The comment pointed to the "impressive safety record of the Great Lakes maritime sector", especially the self-propelled tank vessel sector. Over the past 30 years, there have been four major casualties resulting in abandonment on the Great Lakes, each of which pointed to the need for improvement of the lifesaving equipment carried on these vessels. None of these casualties involved a tank vessel, however, we believe the hazards that would be present in accidents involving Great Lakes tank vessels would be similar to those involving oceangoing tank vessels. Similarly, a sinking of a Great Lakes tank vessel would present survival problems for the crew similar to those that would be experienced in the sinking of a Great Lakes bulk carrier. Each of the major revisions that would result from the regulations proposed in this notice are discussed in the following sections along with the reasons for the changes.

c. Revisions are proposed to incorporate various recommendations of Coast Guard Marine Boards of Investigation and the National Transportation Safety Board. Most of these recommendations are consistent with revisions that are required to comply with SOLAS 74/83 Chapter III. Significant differences are discussed in following sections.

Organization of the Proposed Regulations

The lifesaving equipment requirements are proposed as a new Subchapter W (Part 199) of Title 46 of the Code of Federal Regulations. This new subchapter has been placed first in the proposed revisions contained in this notice, even though it is the last numerically and would appear at the end of Chapter I of Title 46. This is done for the benefit of the reader, since most of the rest of the proposed regulations involve inspection and operational requirements which require an understanding of the equipment requirements in Subchapter W. Subchapter W would completely replace Parts 33, 75, 94, 192, and Subpart E of Part 108 of Title 46.

The structure of Subchapter W parallels Chapter III of SOLAS 74/83. The general requirements applying to all vessels are set out first in Subparts A and B. Subparts C through H contain additional requirements for passenger vessels, cargo vessels, tank vessels, special purpose ships, nautical school ships, and mobile offshore drilling units. For §§ 199.10 to 199.290, the corresponding regulation of SOLAS 74/83 Chapter III is generally the section

number following the decimal point, divided by 10. For example, the SOLAS 74/83 Chapter III regulation generally corresponding to § 199.140 is regulation 14 (140 divided by 10). One comment to the ANPRM urged language similar to the SOLAS 74/83 regulations be used in the U.S. regulations in order to avoid future problems with interpretation and possible conflicts. This is the main objective for using this type of organization. The language used differs in some areas because the SOLAS 74/83 regulations are silent on some points, and are sometimes deliberately vague since complete international agreement was not possible on a particular point. Other changes were necessary in order to conform with current regulatory drafting practices.

There are exceptions to the organizational system described in the preceding paragraph. Chapter III of SOLAS 74/83 contains some inspection and operational requirements. These requirements are proposed as changes to the existing sections of the vessel regulations covering inspection and certification (Parts 31, 71, 91, 107, and 189), and operations (Parts 35, 78, 97, 109, 196, and Subpart 167.65). Part C of SOLAS 74/83 Chapter III (Regulations 30 to 53) contains specifications for lifesaving equipment. A few of these requirements are covered in the proposed Subchapter W, but most affect the specification regulations in Subchapter Q of Title 46 of the Code of Federal Regulations. Most of the revisions to Subchapter Q that are required by the new Chapter III will be proposed in separate notices.

One of the objectives of this project is to eliminate repetitive and overlapping regulations. The new Subchapter W accomplishes this by covering all of the lifesaving system equipment requirements for major inspected vessels in one place. While this type of organization should help to eliminate regulations that are inconsistent from one type of vessel to another, it will require the user to look in two places in order to find the regulations applying to a particular vessel. The user will have to refer to the requirements for all vessels as well as the specific requirements for the particular type of vessel. The revisions for inspection and certification, and for operations are proposed as changes to the existing parts of the various vessel type regulations covering these subjects. This means there are a number of very similar changes being proposed to as many as seven different parts of Chapter I of Title 46. Eventually, these regulations may also be consolidated,

and this repetition will be eliminated. Consolidation of these sections of the regulations is outside the scope of this regulatory project.

References to SOLAS 74/83

These regulations are based in part on SOLAS 74/83, the 1983 Amendments to the International Convention for the Safety of Life at Sea, 1974, which includes a completely revised Chapter III, "Life-saving Appliances and Arrangements." References to the 1983 Amendments are written as "SOLAS 74/83." References to individual regulations follow the convention used in SOLAS 74/83 of listing the chapter, followed by a slash "/", then the regulation number, and the various numbered subdivisions of the regulation separated by decimal points. "Regulation III/4.2.1" therefore refers to Chapter III, Regulation 4, paragraph 2.1.

Additional Requirements

The proposed Subchapter W is intended to establish lifesaving system requirements for vessel operations in tropical and temperate climates. It does not cover operations under unusually severe conditions, such as Arctic conditions. New developments in the search for mineral resources will regularly take vessels into environments where commercial vessel operations have been limited. Proposed § 199.25 will provide for appropriate lifesaving equipment under the conditions in which these vessels will operate.

New and Revised Terminology

a. The SI (metric) system of measurement is used throughout the regulations proposed in this notice. This is done to be consistent with the measurements used in the new Chapter III of SOLAS 74/83 which are in SI units for the first time. It is also consistent with the international character of shipping and shipbuilding. For the convenience of those wishing to use the English system, English equivalents are given in parentheses immediately following the SI units. The SI units would be the official regulatory requirement.

b. The term "immersion suit" replaces "exposure suit" formerly used in Coast Guard vessel regulations. These suits have also been widely known as "survival suits". A separate rulemaking project has updated the specifications for these suits and incorporates the new terminology. These regulations were published on October 22, 1987 at 52 FR 39532.

c. "Thermal protective aids" would be required for certain vessels under the

proposed regulations. These devices are made of lightweight material that will fold into a compact package so that they can be carried as survival craft equipment. They are used to limit heat loss of persons riding in survival craft. The Coast Guard published a new specification regulation for these devices on May 29, 1986 at 51 FR 19342.

d. The term "lifejacket" replaces "life preserver" in order to be consistent with SOLAS 74/83 terminology. This device is also referred to in Coast Guard regulations for recreational boats as a Type I Personal Flotation Device (PFD). The Type I PFD designation will continue to be used in the regulations for recreational boats.

e. The term "lifejacket light" replaces "personal flotation device light" to be consistent with SOLAS 74/83 terminology.

f. The term "hydrostatic release unit" replaces "hydraulic release" and "hydraulic and manual lifesaving equipment release" to be consistent with SOLAS 74/83.

g. The term "mechanical disengaging apparatus" replaces "release mechanism" to be consistent with SOLAS 74/83.

h. The term "survival craft" is defined in proposed § 199.30. The term includes lifeboats, liferafts, buoyant apparatus, and life floats, but does not include rescue boats.

Equivalent and Novel Lifesaving Appliances and Arrangements

Proposed § 199.40(b) provides for approval of "novel" lifesaving appliances. Criteria for acceptance and approval of these devices are in IMO Resolution A.520(13), "Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Lifesaving Appliances and Arrangements". Regulation I/5 of SOLAS 74/83 allows national Administrations to accept arrangements that are equivalent to those specified in the convention. Resolution A.520 establishes performance criteria for these equivalent systems for the first time.

Rescue Boats

One or more rescue boats would be required on most vessels under these proposed regulations. These boats are intended primarily to rescue persons who fall overboard. They could also be used to assist another vessel in trouble. Rescue boats would replace the emergency lifeboats now required on certain passenger vessels. Present regulations require rescue boats on those vessels where inflatable liferafts are substituted for lifeboats. As in present regulations, vessels operating in

relatively protected waters would continue to use the simple rescue boat approved under existing 46 CFR 160.056. Present regulations also require that vessels in exposed waters carry a more seaworthy rescue boat, but the regulations give no criteria for these boats. Under SOLAS 74/83 and the proposed regulations, these rescue boats would have to meet Regulation III/47 of SOLAS 74/83. The need for rescue boats or improved means of retrieving survivors from rough seas was identified by the National Transportation Safety Board in its investigations of the SS BADGER STATE and SS PANOCANIC FAITH casualties. A lifeboat could also be used as a rescue boat if it meets both the rescue boat and lifeboat requirements. One comment stated that a rescue boat had to be arranged to allow no more than two persons of average build and strength to assist the person into the rescue boat, and that a lifeboat could not meet this requirement. A specification regulation for rescue boats will be proposed under another notice and it will contain performance requirements for rescue boats. If a manufacturer can design a lifeboat so that it meets the performance requirements for both a lifeboat and rescue boat, it could be approved as both.

a. Proposed § 199.140 covers the stowage requirements for rescue boats, including a requirement that rescue boats be stowed ready for launching in not more than 5 minutes. One comment stated that rescue boats have some time to prepare before launching, and that the same speed and efficiency is not required as when abandoning ship. We do not agree with this comment. One of the primary functions of the rescue boat is to rescue persons that fall overboard. The time required to launch the rescue boat is of the utmost importance. This is the reason for the 5 minute requirement for preparation of the boat for launching, and for the requirement in proposed § 199.160 that the boat be capable of being launched in the shortest possible time.

b. Proposed § 199.160 covers general requirements for rescue boat embarkation, launching, and recovery arrangements. This paragraph is based on Regulation III/16 of SOLAS 74/83.

c. Many of the rescue boats used on U.S. vessels not on international voyages are small and lightweight, can be put into the water easily by several crew members, and can be boarded in the water from the deck of the vessel. These rescue boats could be exempted from the requirement for a launching appliance on the same basis as survival craft under proposed § 199.150(a)(1).

d. Proposed § 199.202(d) would require rescue boats meeting 46 CFR 160.056 used on passenger vessels to be motor-propelled. Although rescue boats approved under 46 CFR 160.056 are basically rowboats, they can usually be equipped with an outboard motor. This proposal is in response to a recommendation by the National Transportation Safety Board (NTSB) arising from an investigation of the collision between the passenger vessel MISSISSIPPI QUEEN and the towboat CRIMSON GLORY in the Mississippi River in 1985 (NTSB recommendation 86-075). Although the rescue boat was not used in this casualty, the board noted that current, visibility, and traffic problems in the river would limit the usefulness of an oar-propelled boat, and that a motorized rescue boat would greatly reduce the time needed to retrieve a victim in the river.

e. One of the purposes of a rescue boat on a passenger vessel in ocean, short international voyage, and coastwise service, is to marshal the liferafts which have no means of propulsion other than their paddles. Proposed § 199.203 would establish acceptable liferaft-to-rescue boat ratios. (Lifeboats could also be used for this purpose, even if not approved as rescue boats.) This proposed regulation is based on Regulation III/20.3 of SOLAS 74/83. One of the comments on the ANPRM stated that there should be a generous assignment of personnel to the rescue boat to allow for several shifts of persons to operate the boat and act as towline tenders. Assignment of personnel to the rescue boat in the event of a casualty is the responsibility of the master. The boat will be large enough to accommodate at least six persons so there should be room for enough personnel for alternating shifts.

f. Proposed § 199.262 (e) and (f) provide for exemptions from the requirement to carry rescue boats for certain cargo vessels not in ocean service, and for nonself-propelled vessels. Proposed § 199.410 provides for exemptions from the requirement to carry rescue boats for special purpose ships operating on the continental shelf of the United States. A similar provision was included in the February 14, 1983 ANPRM on offshore supply vessel regulations. One comment on the December 31, 1984 ANPRM on this project pointed out that during the development of the new Chapter III of SOLAS 74/83, the United States had submitted a proposal to IMO to exempt small cargo vessels from the rescue boat requirement, if the vessel itself provided a satisfactory rescue platform. The

comment stated that although the proposal was not accepted by IMO, the concept was still valid, especially for crew boats servicing the offshore drilling industry. As special purpose ships, the proposed regulations would exempt suitably arranged crew boats from the rescue boat requirement if they operate on the continental shelf of the United States, or if they carry less than 50 offshore workers and are not in ocean service. Offshore supply vessels that are not crew boats, as well as oceanographic research vessels would qualify for the same rescue boat exemptions since they are also classified as special purpose ships under proposed § 199.400. On December 24, 1987, the Coast Guard published an NPRM on an Emergency Evacuation Plan for Manned OCS Facilities (52 FR 48717). An offshore supply vessel designated as a "standby vessel" in such an emergency evacuation plan might include a rescue boat as part of the emergency evacuation plan. This rescue boat could be the same one used to meet the rescue boat requirements proposed in this notice.

Prevention and Reduction of Hypothermia

Many of the new requirements proposed in this notice are intended to prevent or reduce the effects of hypothermia.

a. In accordance with Regulation III/7.3 of SOLAS 74/83, proposed § 199.73 would require vessels to carry immersion suits for each member of the rescue boat crew. As proposed, this requirement would apply not only to SOLAS 74/83 vessels, but also to those vessels operating in coastwise and Great Lakes service. One comment on the ANPRM wanted this immersion suit requirement limited to vessels operating in those areas where immersion suits are required to be carried, apparently referring to the warm water exemptions further discussed in item (e.) under this heading. The proposed regulation does not include such an exemption since it is not provided for under regulation III/7.3 of SOLAS 74/83. Comments are specifically requested as to whether or not the final regulations should include a limited warm water exemption for this requirement for certain vessels not required to meet SOLAS 74/83.

b. Thermal protective aids would be required to be carried as an item of lifeboat, liferaft, and rescue boat equipment on vessels in ocean, short international voyage, and coastwise service. These aids are compact, waterproof devices that are intended to retain the body heat of the wearer riding in a boat or liferaft. They are not

intended to be effective devices for a wearer in the water. This proposed requirement is consistent with Regulations III/38.5.24, III/41.8.31 and III/47.2.2.13 of SOLAS 74/83 and appears in the equipment list in § 199.175(c)(48) and as item 48 on Table 199.175(c).

c. Proposed § 199.214 would require each passenger vessel in ocean, short international voyage, coastwise, and Great Lakes service to carry immersion suits for the crew of each survival craft on the vessel. Thermal protective aids would be required for the rest of the persons on board. For Great Lakes passenger vessels, this requirement would replace 46 CFR 75.41, which requires immersion suits for all persons on board during the Winter season.

(1) One comment stated that thermal protective aids should be carried on cargo vessels as well as passenger vessels. This is not necessary since cargo vessels are covered by a requirement for immersion suits in proposed § 199.273.

(2) The same comment also suggested that there should be more than one thermal protective aid on board for each person in order to provide spares for those that might be lost or damaged. The thermal protective aids carried as lifeboat and liferaft equipment under § 199.175(c)(48) would be in addition to those carried under § 199.214, therefore spares would be available on board.

(3) Finally, the comment noted that the ANPRM would have exempted passenger vessels that carry totally enclosed or partially enclosed lifeboats from the requirement to carry thermal protective aids. The comment went on to suggest that only vessels with totally enclosed lifeboats should be exempted. Proposed § 199.214 contains no exemptions related to totally enclosed or partially enclosed lifeboats. On February 6, 1984, the Coast Guard published final rules requiring the carriage of exposure suits on certain cargo vessels. These rules provided an exemption for vessels with totally enclosed lifeboats. On November 8, 1984, the President signed into law an act (Pub. L. 98-623) which included a specific legislated requirement for the carriage of exposure suits and a prohibition on excluding a vessel only because that vessel carries other lifesaving equipment (such as totally enclosed lifeboats). On December 31, 1984, the Coast Guard published an amended final rule removing the exemption for vessels with totally enclosed lifeboats (49 FR 50724). Although Pub. L. 98-623 did not address thermal protective aids on passenger

vessels, the purpose of these aids is to provide a degree of hypothermia protection, as is the purpose of exposure suits on cargo vessels. The same principles should therefore apply, so these proposed rules contain no exemption from the thermal protective aid requirement based on the carriage of either totally enclosed or partially enclosed lifeboats.

d. Immersion suits would be required for cargo vessels under proposed § 199.273, and for MODUs under proposed § 199.640. These proposed regulations are essentially identical to the present regulations requiring exposure suits. Three comments wanted these suits to be able to be used to satisfy the requirement for rescue boat crew immersion suits in § 199.73. This would be permitted under proposed §§ 199.273(d) and 199.640(d).

e. Warm water exemptions from the immersion suit requirements are proposed in § 199.214(d) for passenger vessels, in § 199.273(a) for cargo vessels, and in § 199.640(a) for MODUs. The latitudes for the exemption would be established at 32°N and 32°S worldwide. The present regulations establish the exemption lines at 35°N and 35°S worldwide, except in the Atlantic Ocean where the lines are 32°N and 32°S. These latitudes are established by law (46 U.S.C. 3102(a)). The same Act of Congress that established this statute (Pub. L. 98-623) stated that it "does not limit the authority of the (Coast Guard) to prescribe regulations requiring exposure suits on vessels not required by section 3102 to have exposure suits." This act also required the Coast Guard to report to Congress on the benefits and disadvantages of extending the regulations to require exposure suits on designated vessels operating in all waters north of 31°N or south of 31°S. The report to Congress is complete and has been entered in the docket for this project so that it is available for inspection and copying. The report found that there was little advantage to worldwide exemption lines of 31°N and 31°S, but it did find that Winter water temperatures in the Pacific Ocean near the west coast of the United States at 32°N were colder than they were in the Atlantic Ocean at the same latitude. This is the reason that the change to 32°N and 32°S exemption lines are proposed. Expected water temperature at 32°N is at least 60°F at all times during the year in the coastal areas of North America. If a vessel will operate north of 32°N or south of 32°S only when the water temperature is at least 60°F, the vessel may be exempted from

the exposure suit requirement under existing exemption provisions in 46 CFR 30.01-6 and 90.05-10.

f. The best way to prevent hypothermia is to keep survivors from entering the water. Proposed § 199.150(a) is derived from Regulation III/15.1 of SOLAS 74/83 Chapter III and would require launching appliances for all survival craft, with certain exceptions. Launching appliances enable survivors to board the survival craft aboard the vessel before it is launched, so there is no need to climb down the side of a sinking vessel to board them, or to swim to them. One exception in the proposed regulation would generally apply to liferafts that can be readily put into the water and boarded simply by jumping from the vessel to the survival craft. The other exception applies to the float-free liferafts carried on cargo vessels in ocean and coastwise service. On cargo vessels in Great Lakes service, proposed § 199.150(a) would require the liferafts to be davit launched unless they are boarded from a position on deck less than 4.5 m (14 ft., 9 in.) above the light waterline, and meet one of the other conditions in § 199.150(a)(1)(i) or § 199.150(a)(1)(ii). Section 199.405(d) includes an exemption for launching appliances for liferafts on self-elevating offshore supply vessels known in the industry as "lifboats". Lifboats are used to service offshore platforms, and in an emergency, personnel on board the lifboat can transfer directly to the platform the lifboat is working on. If the emergency is on board the platform, or if the lifboat is not adjacent to a platform, these vessels are capable of dropping quickly to the water for abandonment.

(1) One comment expressed concern that liferafts as small as 15 persons capacity might have to be davit-launched since changing requirements for liferafts might cause them to exceed the 185 kg limit. The comment cited in particular a proposal to require stability appendages on inflatable liferafts which was published in the *Federal Register* on January 11, 1985 (50 FR 558). We believe that the combined effect of the changes needed for inflatable liferafts to comply with SOLAS 74/83 and any required additional stability appendage will result in inflatable liferafts as large as 20 persons capacity being under the 185 kg limit. It should also be noted that under proposed § 199.150(a)(1)(ii), liferafts exceeding 185 kg are not required to be davit launched if they are stowed for direct launching and are less than 4.5 m above the waterline.

(2) One comment stated that davit-launched liferafts on Great Lakes bulk

cargo vessels could offer no advantage over float-free liferafts, except in the case of fire. Under proposed § 199.290(b), liferafts on cargo vessels would have to be arranged to automatically float free, whether they are davit-launched or not. On Great Lakes vessels, liferafts for only 100% of the persons permitted on board would be required. This contrasts with vessels in ocean and coastwise service where 200% capacity in liferafts is required. If the liferafts on one side of a vessel in ocean or coastwise service can not be used, there is still 100% capacity available on the other side. The float-free liferafts are used only if the vessel sinks before the liferafts can be launched. On Great Lakes cargo vessels, the liferafts serve a dual purpose. They must float free if the vessel sinks, and they must be available if the liferaft (usually only one is carried on newer vessels) can not be used. If they are stowed high above the waterline (over 4.5 m), they must be davit-launched so that they can be boarded by their full complement at deck level, then launched into the water.

g. Proposed § 199.150(h) would require each launching appliance to be actuated from a position within the survival craft, in addition to a position on deck. This is to enable all persons to board the survival craft at the deck, without the need for a deck crew to remain behind. Conventional launching appliances require at least one winch operator on deck, who must climb down a ladder to the survival craft once it has been launched. Transferring from the ladder to the boat in heavy seas can be very difficult, and may result in the deck crew having to enter the water in order to reach the boat. The term "actuated" is used in response to one comment on the ANPRM that "controlled" should not be used since it implied a need to be able to operate the winch brake from inside the survival craft while the survival craft is being lowered. The regulation is intended to permit, but not require the capability to control the winch brake from inside the survival craft while the survival craft is being lowered.

h. The present regulations require open liferafts on most large commercial vessels, with the exception of MODUs. In heavy seas and cold weather, occupants will get wet and cold in open liferafts, exposing them to the risk of hypothermia. There is also a danger that the boat can be swamped and made more susceptible to capsize. If the boat capsizes, those that do not drown would be exposed to an even greater risk of hypothermia. Proposed § 199.261 (b) and (e) would require totally enclosed

liferafts on cargo vessels and tank vessels in ocean; coastwise; Great Lakes; and lakes, bays, and sounds service. Totally enclosed liferafts provide protection from heavy seas. SOLAS 74/83 requires totally enclosed liferafts to be self-righting when fully loaded and not swamped. If they do swamp, the liferafts meeting SOLAS 74/83 are required to provide an above-water escape for the occupants. Some liferafts will be effectively self-righting in the swamped condition. Proposed § 199.201 (b), (c), and (d) would require totally enclosed liferafts or partially enclosed liferafts on passenger vessels in ocean, short international voyage, coastwise, and Great Lakes service. Partially enclosed liferafts have rigid canopies at each end, and an open area in the center that can be quickly closed with a foldable cover. This arrangement provides some of the same hypothermia protection as a totally enclosed boat, but can generally accommodate and provide more rapid boarding for a larger number of persons. Most large passenger vessels use very large liferafts.

(1) One comment on the ANPRM expressed support for the totally enclosed liferaft requirements on cargo vessels.

(2) Another comment stated that open liferafts in combination with immersion suits already carried, provide adequate protection in case of a casualty. The comment also noted that survival craft Emergency Position Indicating Radio Beacons (EPIRBs) would reduce the amount of time survivors have to spend in liferafts. While the observations made in the comment are valid, the open liferaft is still susceptible to swamping and capsizing, and can not be made to be self-righting. Furthermore, survival time will be increased by keeping survivors dry, even if they are wearing immersion suits.

(3) A third comment opposed a requirement for totally enclosed liferafts on Great Lakes cargo vessels, stating no liferafts had been launched in connection with a U.S. flag vessel loss on the Great Lakes in the past three decades. There have been four major vessel casualties on the Great Lakes in the three decade period mentioned in the comment. The reason liferafts were not a factor in three of these casualties is that the liferafts were served by mechanical davits, which would be replaced with gravity davits under this proposal. This issue is more completely covered elsewhere in this discussion. Had boats been launched in these casualties, they would have been

subject to the same hazards discussed previously.

i. Some of the present regulations for passenger vessels do not require survival craft for all persons on board the vessel, even though the vessel may operate in waters cold enough to quickly cause the onset of hypothermia. Table 75.10-20(a) in Title 46 of the Code of Federal Regulations is a complex system of requirements for percentages of persons that must be provided for in lifeboats, liferafts, and life floats on vessels operating in Great Lakes service; lakes, bays, and sounds service; and river service. There are different requirements for a Winter season (Sept. 16 to May 14) and for a Summer season (May 15 to Sept. 15). There are different requirements for vessels operating north of the 33rd parallel and those operating south of the 33rd parallel. Other variations in the requirements are provided for vessels based on routes, radio equipment, daytime operation, etc. The primary considerations in all of these variations are the risk of injury due to cold water and the speed of rescue in case of a casualty. This complex system would be replaced by the regulations proposed in this notice, which are based on the simple principle that survival craft should be provided for all persons on board, and that appropriate additional survival craft should be provided in case some of the survival craft can not be used. The number of survival craft can be reduced below the number necessary to accommodate all persons on board only in those cases where there is minimal risk of death due to hypothermia or its complications.

(1) In place of the complex table of alternatives, the regulations for passenger vessels proposed in this notice give a basic requirement for survival craft, then provide for various alternatives for vessels operating under certain conditions. For hypothermia risk, water temperature is the primary concern, although the degree of risk at a particular water temperature varies widely for different individuals. The alternatives proposed in this notice are based on the assumption that water temperatures above 15 °C (59 °F) do not present an immediate risk of hypothermia. The various alternatives proposed are more fully discussed in the following section titled "Alternative Survival Craft Requirements for Small Vessels and Vessels in Protected Waters". For the alternatives based on water temperature, it is not intended that the water temperatures in which the vessel operates be continuously monitored. The survival craft

requirements for the vessel would be established according to the routes on which it operates, and the normal prevailing water temperatures during the times of the year it operates on those routes.

(2) One comment on the ANPRM stated additional lifeboats and liferafts would severely affect passenger vessels operating in river service, with a doubtful result. The regulations proposed in this notice may, but not necessarily, result in an increase in lifeboats and liferafts over present requirements. The ANPRM did not present specific regulatory proposals for these vessels, as this notice does.

Alternative Survival Craft Requirements for Small Vessels and Vessels in Protected Waters

The proposed requirements for totally enclosed lifeboats and partially enclosed lifeboats are appropriate for large vessels operating in waters where severe sea conditions can be anticipated. Alternative arrangements are proposed for certain other vessels.

a. Under proposed § 199.201(e), passenger vessels on lakes, bays, and sounds service, and those in river service would be permitted to carry open lifeboats for that portion of the complement that would have to be accommodated in lifeboats. Most passenger vessels in these services, however, can be expected to use one of the other alternatives discussed in the following paragraphs.

b. Under proposed § 199.201(f), passenger vessels under 500 tons gross tonnage with fewer than 200 persons on board could carry liferafts for all of the persons on board. A similar provision for cargo vessels less than 85 m (278 ft.) long in ocean and coastwise service is proposed in § 199.261(d). Cargo vessels under 85 m long in Great Lakes service; lakes, bays, and sounds service; and those operating on the continental shelf of the United States would be covered under proposed § 199.261(f). No boats would be required other than rescue boats. These alternatives are based on Regulations III/20.1.5 and III/26.1.3 of SOLAS 74/83. Nonsell-propelled vessels (barges) are not covered under SOLAS 74/83, but the liferaft alternative would also be permitted for those vessels under proposed § 199.261(d) and (f).

(1) One comment addressed the substitution of liferafts for lifeboats on passenger vessels by stating that it was not supported, but no reasons were given. Substitution of liferafts for lifeboats on small vessels is permitted by the present regulations, and has proved to be a satisfactory arrangement to date.

(2) One comment stated that the present requirement for 100% capacity in inflatable liferafts should be retained for offshore supply vessels and also for nonsell-propelled vessels. These vessels would continue to have a requirement for 100% capacity in inflatable liferafts under proposed § 199.261(f).

c. Proposed § 199.201(g) would allow ferries not in ocean service or short international voyage service, or a passenger vessel in lakes, bays, and sounds service, or in river service, to carry inflatable buoyant apparatus instead of lifeboats or liferafts. Inflatable buoyant apparatus are a relatively new type of survival craft. They are similar to inflatable liferafts, except that they have no canopy, can be used either side up, and carry only a limited amount of equipment. These devices provide important protection from hypothermia since they support their occupants completely out of the water. The proposed regulations would limit the services in which they could be used, because the lack of a canopy would compromise their hypothermia protection in severe sea conditions. Since they have no canopy, they can be rapidly boarded by a large number of persons with a minimum amount of supervision, which is very important in high density passenger service. The new inflatable buoyant apparatus, the proposed requirement for survival craft in § 199.201(g), and the retrofit requirement proposed in § 199.15(k), is the Coast Guard's response to a provision in the 1984 Coast Guard Authorization Act which required the Secretary of Transportation to proceed vigorously with efforts to develop improved lifesaving equipment for use on passenger ferries.

Additionally, we believe that the use of inflatable buoyant apparatus will result in the most cost effective way to provide out of the water flotation for survivors of a ferry casualty because (1) inflatable devices store in a compact form, limiting the amount of structural modifications that have to be made to accommodate them, (2) inflatable buoyant apparatus are significantly less bulky on a per-person basis than even inflatable liferafts, so that comparatively fewer of them are needed, (3) they do not carry a large amount of survival equipment, so that bulk, weight, and cost are further reduced, and (4) because their open structure allows one person to supervise the launching and loading of several devices at one time, there is no requirement to have a lifeboatman or other trained crewmember for each individual device. On high density ferry

services, a requirement for one crewmember for each device could significantly raise the number of crewmembers required, for the sole purpose of being available for an abandon-ship casualty. With the appropriate arrangement of inflatable buoyant apparatus, we believe that vessels will generally not have to increase their crew size for the sole purpose of manning the survival craft.

d. Proposed § 199.201(h) would permit passenger vessels operating in warm waters (15 °C (59 °F)) and not in ocean, short international voyage, or coastwise service to increase the number of persons carried. Survival craft would be required only for 10% of the persons on board. The number of persons carried may exceed the capacity of the survival craft provided because each person will be provided with a lifejacket, the warm water does not present an immediate hypothermia threat, and rescue would be quickly available in the areas where these vessels operate. The 10% survival craft requirement is retained to provide for persons who may be incapacitated and for other persons attending them. Present regulations in 46 CFR 75.10-20(a) permit reductions in lifesaving equipment in certain areas and at certain times of the year regardless of prevailing water temperature.

e. Proposed § 199.201(i) would permit passenger vessels not in ocean, short international voyage, or coastwise service to operate in shallow water near land without survival craft. A similar alternative is proposed for cargo vessels in § 199.261(j). These proposed regulations are similar to existing passenger and cargo vessel regulations permitting vessels to operate without survival craft in waters less than 3 ft. deep. There are few, if any vessels, believed to be taking advantage of these regulations, therefore they are being considered for elimination from the final rules. Comments are specifically requested as to the usefulness of these proposals.

f. Cargo vessels in river service would be required to carry a combination of survival craft to accommodate all persons on board under proposed § 199.261(g).

g. Proposed § 199.261(i) would permit cargo vessels operating in warm waters (15 °C (59 °F)) and not in ocean or coastwise service, and vessels operating on the continental shelf in the Gulf of Mexico, to carry life floats instead of lifeboats or liferafts. The warm water in these areas does not present an immediate hypothermia threat and rescue would be quickly available in the areas where these vessels operate.

h. Present regulations in 46 CFR 94.10-20, 94.10-25, 94.10-45 and 94.10-50 cover alternative lifesaving equipment requirements for fireboats, wrecking vessels, fishing vessels, pilot boats, and yachts. Ordinarily vessels of these types are inspected vessels only if propelled by steam. Virtually all vessels of these types are now motor propelled and covered under either 46 CFR Subchapter C, or 33 CFR Subchapter S, so these regulations are obsolete. There are no corresponding regulations proposed in this notice.

Improved Distress Communications

a. Proposed § 199.62 would require each vessel in ocean, short international voyage, coastwise or Great Lakes service to have survival craft portable two-way radiotelephone apparatus. These radios are intended for communication between survival craft, between survival craft and the vessel, between the vessel and its rescue boat, and for communication with on-scene rescue units. These portable radios would not be required for each survival craft, but at least three would have to be on each vessel. The Federal Communications Commission (FCC) adopted final rules on approval of this equipment on May 1, 1985 (50 FR 18489).

(1) Two comments wanted clarification on whether or not these radios were to be portable or permanently installed, and whether existing equipment on the vessel could be used to meet the requirement. Three other comments stated that equipment already in use would meet this requirement. This equipment is intended to be the same as or similar to the two-way radio equipment typically used on vessels for routine operations, so although the requirement is new, it should not result in the carriage of additional equipment on most vessels.

(2) One comment stated that two-way radiotelephone apparatus now used as operational equipment on board vessels is not kept in good operational condition, and that regulations were needed to cover maintenance and spare parts requirements. The FCC is responsible for regulations covering radio equipment and its operation. That agency requires operational testing of this equipment once a week in its regulations at 47 CFR 80.834(c). This testing should determine if the equipment is in good operating condition and whether or not it needs repair. This comment has been forwarded to the FCC for their consideration.

b. On March 18, 1974, the Coast Guard published rules that required inspected vessels in ocean and coastwise service to carry Class A Emergency Position

Indicating Radio Beacons (EPIRBs) operating on 121.5/243 MHz (39 FR 10139). Vessels in coastwise service could escape the requirement under certain conditions. On October 18, 1984, the Coast Guard published final rules that required vessels operating on the Great Lakes to carry Class C EPIRBs operating on VHF-FM channels 15 and 16 (49 FR 40407).

(1) For vessels in ocean, short international voyage, coastwise, or Great Lakes service, the regulations proposed in § 199.64(a) would require on each side of the vessel, a Federal Communications Commission (FCC) Type Accepted float-free EPIRBs operating on the dedicated satellite frequency of 406.025 MHz. Elimination of the exemption for coastwise service is proposed since rapid alerting and location of vessels in distress in this region is as necessary as it is further at sea. The "406" MHz Satellite EPIRB system not only provides improved alerting and locating over conventional EPIRBs operating on 121.5/243 MHz, but also includes safeguards to prevent problems arising from false alarms. False alarms are a major problem which limit the effectiveness of the 121.5/243 MHz system. Although "COSPAS/SARSAT" search and rescue satellites can receive 121.5 MHz signals, 121.5/243 MHz EPIRBs are not designed as "Satellite EPIRBs" and their coverage area and alert and locate ability is significantly inferior to that of the 406 MHz Satellite EPIRB. Necessary final rules permitting manufacture and sale of 406 MHz Satellite EPIRBs were published by the Federal Communications Commission (FCC) on September 26, 1988 (53 FR 37308). These beacons should be readily available later this year.

(2) The proposed regulations would require two 406 MHz Satellite EPIRBs, one on each side of the vessel. The present regulations require only one Class A EPIRB. This proposal is made because vessels often list strongly to one side, or roll over before sinking, which could render a single EPIRB inoperable. A fire or explosion could also destroy a single EPIRB, or make it inaccessible. The second EPIRB also provides added reliability. We also believe that under certain conditions, these EPIRBs can be substituted for the Class S EPIRBs or transponders discussed in paragraph (c.) which follows. The substitution is proposed in § 199.64(b)(3). Having two 406 MHz Satellite EPIRBs on the vessel could be more economical than having one 406 MHz Satellite EPIRB and two Class S EPIRBs or transponders on the vessel.

(3) The Coast Guard recognizes that many vessels have Class A EPIRBs in compliance with the present regulations, and that this equipment has a long service life. Therefore, proposed § 199.64(d) would allow Class A EPIRBs that are installed on or before the effective date of the final rules to be carried for about 6 years. This phase-in period is identical to the period provided for fishing vessels, fish processing, and fish tender vessels under a final rule published in the *Federal Register* on August 17, 1988 (53 FR 31004). At the present time a revision to SOLAS 74/83 is under consideration at IMO, which would introduce the Global Maritime Distress and Safety System (GMDSS). The revision is expected to be accepted at an international conference in late 1988. Satellite 406 MHz EPIRBs are part of the GMDSS, and the revision could come into force as soon as 1993, with all ships on an international voyage required to carry Satellite EPIRBs at that time. In spite of the 6-year phase-in period proposed in this notice, vessels on international voyages would have to comply with any earlier SOLAS amendment date in order to be issued SOLAS Safety Certificates.

(4) For vessels in Great Lakes service, the regulations proposed in § 199.64(e) would also require the 406 MHz Satellite EPIRB to replace the two Class C EPIRBs within 6 years. The Class C EPIRBs do not have the false alarm problem that Class A EPIRBs do and can provide an immediate alert without having to wait for a satellite to pass within range, since the Great Lakes have virtual full coast station coverage of the VHF-FM system on which Class C EPIRBs operate. On the negative side, the Class C EPIRB's short low-power alert signal on channel 16 can easily be drowned out by more powerful transmissions on that busy channel. They are not recognized as a distress device in Canada, or anywhere else outside the United States. Because of the limited use of these devices, EPIRB transmissions on channel 16 often aren't recognized by persons guarding the channel, and the transmission may not be identified as a distress.

(5) Under proposed § 199.66, each vessel on an international voyage now required to carry a portable radio apparatus for survival craft (portable lifeboat radio), would not have to carry one once the vessel is equipped with the 406 MHz Satellite EPIRB. The United States will have to file a SOLAS Equivalency Statement with IMO for this rule, since the portable radio apparatus will still be required under

SOLAS 74/83 until the SOLAS amendments providing for the GMDSS come into force. The equivalency statement would be based on the vessel carrying a float-free Category 1 Satellite EPIRB, in addition to locating equipment for survival craft consisting of Class S EPIRBs, transponders, or Category 2 Satellite EPIRBs as discussed in paragraph (c.), which follows.

(6) Three comments opposed EPIRBs for inshore or river operations. The regulations proposed in this notice would not require any EPIRBs on vessels in river service, or in lakes, bays, and sounds service.

c. Regulation III/6.2.3 of SOLAS 74/83 requires each vessel to carry two survival craft EPIRBs, one on each side of the ship, stowed in a way that they can be rapidly placed in survival craft. Survival craft EPIRBs are designated as Class S EPIRBs by the FCC, and the rules published by the FCC on May 1, 1985 (50 FR 18489) included technical requirements for them. Under the GMDSS, the Class S EPIRB would be replaced by a Search and Rescue Transponder (SART). These SARTs would be required to be stowed one on each side of the ship in such locations that they can be readily placed in any survival craft, or else one would have to be carried in each survival craft. The Coast Guard is proposing that each lifeboat and rescue boat carry either a Class S EPIRB, a 406 MHz Satellite EPIRB, or a SART instead of having just one stowed on each side of the vessel for use of all the survival craft on the vessel. This arrangement should provide more protected stowage for the EPIRB or SART. More importantly, it simplifies the abandonment procedure by eliminating an additional item that has to be remembered, and since each lifeboat and rescue boat would be provided with an EPIRB or SART, survivors of a casualty should be able to be more rapidly located. For liferafts, the proposed § 199.64(b) would require one EPIRB or SART on each side of the vessel unless each liferaft carries one of these devices. Carriage of EPIRBs or SARTs in the liferafts would be desirable for the same reasons as discussed for lifeboats and rescue boats, but the option being proposed would allow the saving of weight in liferafts limited to 185 kg under SOLAS 74/83 Regulation III/38.2.2. Note that the present FCC regulations at 47 CFR 80.833(b) require Class S EPIRBs to be stowed in survival craft, so if this proposal is adopted as a final rule, the Coast Guard will have to request a change in the FCC rules. The proposed regulations requiring an EPIRB or SART

in survival craft are consistent with a recommendation on survival craft EPIRBs made by the Coast Guard Marine Board of Investigation on the sinking of the drillship GLOMAR JAVA SEA. Since the EPIRB or SART would be required to be carried in lifeboats and rescue boats, "EPIRB/SART" is listed as an item of survival craft equipment in proposed § 199.175(c)(12). Lifeboats and rescue boats equipped with SARTs will not have to carry the passive radar reflector required in proposed § 199.175(c)(34) and under SOLAS 74/83 Regulations III/38.5.1.14 and III/41.8.30.

(1) The ANPRM of December 31, 1984 stated that the Coast Guard would propose that a Class S EPIRB in a float-free liferaft be required to activate automatically when the raft floats free and inflates. The present requirement for the Class A float-free EPIRB on the vessel could then be eliminated. One comment identified a number of potential problems with the automatic activating EPIRB in a float-free raft. Another favored retaining the Class A EPIRB in addition to the Class S EPIRB. Since neither the Class S EPIRB nor the SART will have a 406 MHz signal, neither can perform the function of the 406 MHz Satellite EPIRB; therefore, neither can replace the 406 MHz Satellite EPIRB whether automatically activated or not. For this reason, the regulations proposed in this notice do not propose automatic operation for any Class S EPIRBs or SARTs.

(2) Two comments suggested that new EPIRBs for survival craft should not be required until the GMDSS and the international rescue apparatus are in place. Class S EPIRBs and SARTs do not need any special international rescue apparatus to operate. Class S EPIRBs function with existing aeronautical radios, direction finders on larger Coast Guard cutters, and the COSPAS/SARSAT satellite system. SARTs function with most radar sets which operate in the bands 9200-9500 MHz or 9300-9500 MHz. The GMDSS is expected to be adopted (although not fully implemented) by the time the final rules arising from this notice are in effect.

(3) Vessels subject to SOLAS 74/83 built since July 1, 1986 have been required to be equipped with Class S EPIRBs. Class S EPIRBs have circuitry similar to Class A EPIRBs, so they will be detected by COSPAS/SARSAT satellites. Consequently, § 199.175(c)(12) would permit continued use of Class S EPIRBs. The United States is considering allowing Class S EPIRBs or 406 MHz Satellite EPIRBs to be used instead of SARTs even after the GMDSS is in place. In order to do this, the United

States will have to file an equivalency statement with IMO when the GMDSS requirement for SARTs goes into effect. SARTs allow any ship with a 9 GHz radar set to locate survival craft at a range of 6 to 10 nautical miles. These detection ranges were determined in testing using Coast Guard cutters and aircraft. Aircraft with compatible radar can locate SARTs at a range of up to 20 nautical miles. About half of the Coast Guard's aircraft do not have compatible radar and would not detect SARTs. Commercial airliners and most military aircraft would also be incapable of detecting SARTs. On the other hand, Class S EPIRBs and 406 MHz Satellite EPIRBs are detectable at relatively long ranges by Coast Guard, civil, and military aircraft. (Satellite EPIRBs operation on 406 MHz will also have a low-power homing beacon operating on the same 121.5 MHz frequency as Class S EPIRBs.) Large Coast Guard cutters can also home on this signal, although few other ships have this capability.

(3) Two comments supported the proposal to have an EPIRB in each survival craft. Another comment supported an EPIRB in each lifeboat, but not in the inflatable liferafts, stating that their usefulness was doubtful in view of the other EPIRBs on board, and their functional reliability in a liferaft would be questionable. The comment did not explain why the reliability of an EPIRB in the liferaft was doubtful. Two comments concerned the possibility that an excessive number of EPIRBs would create problems with multiple transmission sources. Another did not agree that pilferage of EPIRBs was a problem, or that they were necessarily more secure in a lifeboat. The same comment expressed doubt that EPIRBs would be likely to be forgotten if they were stowed outside a survival craft. Our understanding is that pilferage of Class A EPIRBs has been a problem, and that they are often locked up when the vessel is in port. If survival craft EPIRBs and SARTs are not stowed in the survival craft, they would have to be kept in prominently marked boxes on deck. Stowage in a lifeboat equipment locker, and especially in a packed inflatable liferaft would appear to be more secure. We believe that the equipment should be stowed where it will be used—in the survival craft. Although a well-trained crew might not forget to carry the EPIRB or SART to the survival craft, the abandonment procedure should not be unnecessarily complicated by additional tasks to be carried out under emergency conditions. We believe that the requirement for carriage of EPIRBs or SARTs in lifeboats

and rescue boats, and the option to carry EPIRBs or SARTs for liferafts either on deck or in the liferaft, provides the best balance among the various concerns.

Rapid Launching of Survival Craft

The ability to abandon a vessel quickly is often important in a marine casualty. A number of proposed new requirements are intended to make sure survival craft can be quickly boarded and launched.

a. Proposed § 199.110(c) would require muster and embarkation stations for survival craft boarded before they are launched, to be arranged to enable stretcher cases to be placed in survival craft. This proposal is based on Regulation III/11.6 of SOLAS 74/83 and is intended to make sure that loading of disabled persons into the survival craft does not unduly delay launching of the survival craft. One comment expressed concern that all totally enclosed lifeboats might not have entrances sized to allow stretcher loading, and that the embarkation areas on existing vessels might have to be rearranged to provide for stretcher access. There is no intent to have existing vessels rearranged to meet this requirement. All new totally enclosed lifeboats built to meet SOLAS 74/83 will have entrances sized to permit stretcher loading. The embarkation area on new vessels would have to be arranged so that the stretcher could be loaded in the intended manner. This is a detail that will have to be considered when the vessel's embarkation area is designed, but it should not normally result in difficulty or additional cost.

b. Proposed § 199.110(d) would require embarkation stations to be located where it is not necessary to climb more than three steps or climb over obstructions to reach the embarkation station from the adjacent deck house and to board the survival craft from the embarkation station. There is no corresponding requirement in the present regulations because conventional launching arrangements require lifeboats to be lowered to the deck edge in order to be boarded. This arrangement limits climbing to board the survival craft. The proposed regulation would make sure that future survival craft installations continue to minimize the need for climbing to board the survival craft.

c. Proposed § 199.135(c) would require a gate or other suitable opening in the rail or bulwark adjacent to the stowage location of each liferaft and inflatable buoyant apparatus, not served by a launching appliance, unless the raft is mounted above the rail so it can be

pushed overboard. This is to enable the liferaft or inflatable buoyant apparatus to be pushed over the side without lifting it. The need to lift a liferaft over the rail has been a problem in several casualties, and recommendations to provide an opening in the rail or bulwark were made by the Marine Board of Investigation on the explosion and fire aboard the SS PUERTO RICAN, and by the investigating officer on the fire aboard the M/V FINALISTA 100.

d. Proposed § 199.150(c) would require all new launching appliances to operate only by gravity or stored mechanical power. Launching systems that depend on manual power would not be permitted because of the long time required to launch a survival craft by manual means. Note, however, that proposed § 199.130(a)(2) would permit manual power to be used to bring a davit launched liferaft from its stowed position to the embarkation position. Stored electrical power (batteries) would also not be permitted because of reliability problems and diminished performance at low temperatures.

e. Proposed § 199.153(i) would establish a formula to determine the minimum lowering speed for survival craft launched by a system employing falls and a winch. The minimum speed increases as the launch height increases. The formula comes from Regulation III/48.2.6 of SOLAS 74/83, although that regulation does not state the condition of survival craft loading for which the formula is intended. Based on correspondence with several foreign maritime regulatory agencies, we believe that most of the drafters of SOLAS 74/83 intended this formula to apply to a fully loaded survival craft. Therefore, proposed § 199.153(i) would apply to a loaded survival craft. A related proposed regulation is § 199.153(j) which would require a lowering speed for a light survival craft to be not less than 70% of the speed required under § 199.153(i). One comment expressed concern about the application of this regulation to MODUs, because the high freeboards of these vessels would result in extremely high launching speeds when the formula in Regulation III/48.2.6 of SOLAS 74/83 is used. The comment pointed out that the SOLAS 74/83 regulation was developed for conventional vessels to limit the swinging of a lifeboat against the side of a rolling vessel as the lifeboat is launched, and that this should not be a concern on MODUs because of the clearance requirement which is covered under proposed § 199.650(d) of this notice. We agree with this comment, but the concern is addressed by the 30 m

launching height limit used to calculate the lowering speed under proposed § 199.153(i). No lifeboat would be required to have a loaded lowering speed greater than 1 m/sec.

f. Proposed § 199.153(k) would establish a maximum lowering speed of 1.3 m/sec. (256 ft./min.). Regulation III/48.2.7. of SOLAS 74/83 requires Administrations to establish a maximum lowering speed.

g. Proposed § 199.245(b) would require the total number of persons on board a passenger vessel to be able to be launched in survival craft within 30 minutes from the time the abandon-ship signal is given. Other vessels would be required to provide for abandonment in 10 minutes under proposed § 199.280(e). One comment expressed support for the 10 minute requirement on cargo vessels.

h. Conventional lifeboat launching systems require the lifeboat to be moved from its stowage position, down to an embarkation position at the edge of a lower deck. The boat is held close to the deck by "tricing pendants." "Frapping lines" are then passed around the falls and the tricing pendants let go. The boat is then boarded, the frapping lines let out, and the boat lowered. A superior method allows all persons to board the lifeboat at the stowage position and launch the lifeboat directly. The regulations proposed in this notice would allow this method of launching from the stowed position for passenger vessels (§ 199.220(a)(1)) and require it for other vessels (§ 199.280(b)). During discussions on this matter at IMO prior to the completion of SOLAS 74/83, the delegates decided not to require this method of launching on passenger ships because (1) it had not been demonstrated with the large lifeboats that are typical on passenger ships, and (2) if the lifeboats were located on one of the upper decks in a typical passenger ship configuration, passengers would be required to climb at least one additional deck level to board the lifeboats, and the loaded lifeboats higher on the vessel could adversely affect the stability of a ship already in danger. These problems could be overcome by a departure from typical passenger ship configuration by locating the lifeboats at a lower deck. Some ship designers have indicated an interest in stowing lifeboats at a lower level with launching directly from the stowed position. IMO committees are now considering a proposed recommendation to limit passenger ship lifeboats to a stowage height of 13.5 m (44.3 ft.). Comments are specifically requested on passenger ship lifeboat stowage and launching arrangements.

i. One new system of lifeboat launching is the free-fall system. It is

intended to improve the speed and reliability of lifeboat launching by eliminating the need to lower the lifeboat to the water on a wire. Instead, the boat is boarded on the vessel and, when all on board are strapped into their specially designed seats, the boat is released and allowed to drop into the water. The design of the boat and its angle of entry into the water are such that the boat with the survivors can safely endure the impact with the water, and the boat is carried safely away from the vessel. SOLAS 74/83 provides for the approval of free-fall lifeboats in Regulations III/44.6 and III/48.4, and the Coast Guard has already approved one such a system as equivalent to a conventional launching system. Free-fall systems could be used in place of conventional launching systems on most vessels, except they would not be permitted on passenger vessels. Proper training essential for the safe use of free-fall systems is not practical for passengers. Free-fall lifeboats are most likely to be used on MODUs and on large cargo and tank vessels. Proposed § 199.261(c) would permit the use of free-fall launched lifeboats on the stern of cargo and tank vessels. This proposed regulation is based on Regulation III/26.1.2 of SOLAS 74/83. The lifeboats required on a MODU under proposed § 199.605(b) could be free-fall boats also. One comment expressed concern about the vulnerability of a stern-mounted free-fall boat to storm damage, and its ability to get away from the stern of the vessel. There are no free-fall lifeboats on U.S. flag cargo vessels or tankers, but several vessels registered in other countries are equipped with such systems. The boats are mounted high enough on the stern to prevent wave damage, and the motion given the boat by the free-fall ramp propels it away from the stern.

(j) Proposed § 199.135(f) would require float-free liferafts and inflatable buoyant apparatus to use hydrostatic release units for the first time. Existing regulations allow the use of float-free arrangements which keep the raft from shifting on deck, but which permit it to float upward and away from a sinking vessel unrestrained. This arrangement, and the arrangement of the present Coast Guard approved hydraulic release, require that the raft painter be secured to the vessel by a weak link, which breaks under the buoyant force of the raft. This keeps the sinking ship from sinking the raft by dragging it under by its painter. Unfortunately, this arrangement also means if the raft is launched manually, it is secured only by the weak link. The weak link can easily break under the force of wind and

waves, which can lead to loss of the raft before it is boarded. This problem can be solved by belaying the painter to a cleat, but this defeats the protection of the weak link if the vessel sinks. Proposed § 199.135(f) and new hydrostatic releases approved under SOLAS 74/83 solve these problems by allowing the raft to be manually released from the hydrostatic release, without releasing the painter from the vessel. The painter remains secured to the vessel through the hydrostatic release. If the vessel sinks, the hydrostatic release releases the painter, which remains secured to the vessel only by the weak link. The weak link is loaded only if the vessel sinks. This system has been required by other countries for many years, and seems to work well.

Launching at a 20° List

Present regulations and SOLAS 74/83 requirements generally require survival craft to be launched with the vessel trimmed to 10° and listed to 15°. SOLAS 74/83 generally requires survival craft launching appliances to operate at a 10° trim and 20° list. The drafters of SOLAS 74/83 Chapter III added the requirement for operation at an additional 5° list to allow for launching of survival craft if the decision to abandon ship is made with the ship listing as much as 20°.

a. Proposed § 199.130(a)(1)(iii)(C) would require the survival craft in the embarkation position to be above the waterline with the vessel listed to 20°.

b. Proposed § 199.150(a)(1)(ii) would permit certain survival craft boarded from a position less than 4.5 m (14 ft., 9 in.) above the waterline (generally liferafts) to not have a launching appliance if the survival craft is stowed for launching directly from the stowed position under unfavorable conditions of trim of up to 10° and with the vessel listed up to 20° either way.

c. Proposed § 199.150(b) would require launching appliances to safely lower survival craft against a trim of up to 10° and a list of up to 20° on the high side, and the greater of 20° or the degree of list where the survival craft becomes waterborne, whichever is the greater, on the low side.

d. Proposed § 199.150(d) would require a factor of safety of 4.5 for launching appliances and their attachments in accordance with Regulation III/48.1.8 of SOLAS 74/83. Present regulations require a factor of safety of 6; however, the present factor of safety applies to a vessel with a list of 15°. The factor of safety of 4.5 would apply to the new 20° list requirement, which for davits should

be roughly equivalent to a factor of safety of 6 at 15° list.

e. Proposed § 199.153(d) would require falls long enough for the survival craft to reach the water with the vessel in its lightest seagoing condition, under unfavorable conditions of trim and with the vessel listed up to 20° either way.

f. Proposed § 199.157(d) would require a davit span for each open lifeboat and partially enclosed lifeboat. Each davit span would have to be provided with not less than two lifelines of sufficient length to reach the water with the vessel in its lightest seagoing condition, under unfavorable conditions of trim and with the vessel listed up to 20° either way.

g. Proposed § 199.320(b) would require survival craft on an oil tanker, chemical tanker, or gas carrier to be safely lowered on the lower side of the vessel at the final angle of heel calculated under—

(1) MARPOL 73/78 in the case of an oil tanker;

(2) The International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (IBC Code) in the case of a chemical tanker; or

(3) The International Code for the Construction and Equipment of Ships carrying Liquefied Gases in Bulk (IGC Code) in the case of a gas carrier.

Availability of Survival Craft

a. Proposed § 199.261(b)(2) would require ocean and coastwise cargo vessels and other ocean and coastwise vessels required to meet the cargo vessel regulations, to carry liferafts for the total number of persons permitted on board. These liferafts are in addition to the lifeboats carried. This proposed regulation is based on Regulation III/26.1.1.2 of SOLAS 74/83, and is an increase over present requirements. Both Coast Guard regulations and SOLAS 1974 require these vessels to carry liferafts for 50% of the persons on board. These liferafts are required to automatically float free if the vessel sinks so that there are survival craft available in case the lifeboats can not be launched before the vessel sinks. The liferafts are also available in case the lifeboats can not be used for some other reason. A sufficient number of liferafts should therefore be available to accommodate all persons on board the vessel.

(1) Additional liferafts were recommended by the National Transportation Safety Board as a result of its investigations of the casualties involving the TEXACO OKLAHOMA and the PANOCEANIC FAITH.

(2) One comment on the ANPRM stated that 100% liferaft capacity was

probably unnecessary since all hands would probably not get clear of a vessel that sank too rapidly to launch the lifeboats. The comment may be correct for some casualties, but the recommendations cited in the preceding paragraph arose from casualties where the present 50% liferaft capacity was not adequate. This matter also was discussed at length by the Lifesaving Appliances Subcommittee and the Maritime Safety Committee of IMO before the 100% liferaft requirement was finally adopted as part of the new Chapter III of SOLAS 74/83. A number of other countries cited casualties to their vessels in which the present 50% liferaft capacity was inadequate.

b. The present regulations for seagoing cargo barges in 46 CFR 94.10-15 require only a lifeboat with a capacity of 80 cubic feet, or the equivalent capacity in inflatable liferafts for those barges small enough to qualify for substitution of liferafts for lifeboats. For tank barges in ocean and coastwise service, 46 CFR 33.05-5 and 33.05-15 require lifeboats of 125 cubic foot capacity. A typical 80 cubic foot capacity lifeboat would be about 13 feet long with a capacity of 5 persons. A typical 125 cubic foot capacity lifeboat would be about 16 feet long with a capacity of 9 persons. Open lifeboats this size would probably be inadequate in heavy seas, and no provision is made to provide spare survival craft in case the boat is lost or made unusable. Under proposed § 199.261(d), most seagoing cargo barges would be required to carry an inflatable liferaft on each side capable of accommodating all persons permitted on board the barge. Under proposed § 199.310(c), tank barges over 500 tons gross tonnage would have to have the same fire-protected lifeboats as self-propelled vessels.

Survival Craft and Rescue Boat Equipment

Proposed § 199.175(c) and Table 199.175(c) contain requirements for survival craft and rescue boat equipment. Note that the liferaft equipment covered in this section is for rigid liferafts only. There are no rigid liferafts approved by the Coast Guard for new production at this time. Equipment for inflatable liferafts is covered in 46 CFR 160.051, and revisions to that section to meet the SOLAS 74/83 requirements will be proposed under a separate notice. The quantities of equipment have been revised for vessels in ocean and short international voyage service to be consistent with SOLAS 74/83. Few revisions have been made to the quantities of equipment required for vessels in Great Lakes; lakes, bays, and

sounds; and river services. Comments are specifically requested on whether or not additional changes should be made to the equipment lists for these services. Items to consider adding are first aid kits, heaving line, knife or jackknife, ladder, orange smoke signals, and a signal mirror. The lifeboat equipment list has been revised to eliminate special equipment requirements for seagoing barges and for Great Lakes cargo vessels not carrying cargo. In the following discussion, the item number refers to both the paragraph number under proposed § 199.175(c) and the number used in Table 199.175(c).

a. Item 3 covers requirements for lifeboat bilge pumps. The size of the bilge pump is governed by the cubic capacity of the lifeboat under present regulations, but cubic capacity will no longer be used to describe lifeboat size. Instead, the persons capacity is used to determine bilge pump size. The size 1 bilge pump has also been deleted since there have been no Coast Guard approved size 1 bilge pumps produced in over 10 years.

b. Item 4 covers boathooks. The 1¼" and 2" pole diameter sizes are no longer listed since they are no longer generally available. Boathooks would be required to be of at least the 1½" size under item 4 as proposed.

c. SOLAS 74/83 requires lifeboats and liferafts to carry 3 can openers. Item 6 covers this proposed requirement. The can opener in the Coast Guard approved jackknife under item 20 could be used to meet the requirement for one of these can openers.

d. Item 7 covers the proposed requirement for a compass on a lifeboat and rescue boat. Coast Guard approved compasses in open lifeboats and many totally enclosed lifeboats are now mounted in a box which is stowed in an equipment locker. The proposed regulation would require the compass in a totally enclosed lifeboat to be permanently installed at the steering position. This can be done in an enclosed lifeboat since the compass would be adequately protected from the weather by the boat enclosure, it would reduce the need for stowage space, it would make the compass available for immediate use, and it could make the compass less susceptible to loss. In other than totally enclosed lifeboats, the compass could either be permanently installed, or be of the conventional removable arrangement.

e. The dipper required in a lifeboat for collected rain water under SOLAS 74/83 is covered in item 9.

f. Item 16 covers flashlights. The Coast Guard removed 46 CFR 160.008 in a

Final Rule published May 18, 1988 at 53 FR 17702. That specification regulation was replaced by American Society for Testing and Materials (ASTM) Standard F1014. Item 16 reflects the revision.

g. Item 22 covers proposed requirements for the lifeboat and rescue boat boarding ladder. For the first time, a permanently installed rigid ladder would be allowed for this purpose in place of a rope ladder. Present regulations require the rope ladder to be kept on the side benches rigged ready for immediate use. The proposed regulations would now require a rope ladder to be rigged outboard at all times. If these boats are empty and not launched when a vessel sinks, they can be torn loose of their davits as the vessel sinks and could be used by survivors that are cast into the water. The ladder needs to be readily available for the use of those that need to board the boat from the water. Comments are specifically requested on problems or advantages involved in keeping the ladder rigged outboard.

h. Item 23 covers proposed requirements for the lifeboat lantern. Present regulations require an oil lantern; however, under the proposed regulations, totally enclosed and partially enclosed lifeboats would have to have an interior lighting system installed by the manufacturer. Item 26, matches, and item 29, illuminating oil are related items.

i. Item 28 covers the requirement to carry oars, but for new lifeboats, paddles would be acceptable if the manufacturer of the lifeboat demonstrates that paddles can be used for manual propulsion. Totally enclosed lifeboats are generally not arranged for efficient operation under oars.

j. Item 31 would establish a minimum length of 15 m (50 ft.) for lifeboat painters in order to be consistent with SOLAS 74/83. SOLAS 74/83 also requires a minimum length of two times the distance from the stowage position to the waterline; however, item 31 would retain the requirement in the present regulations for a length of at least 3 times the distance from the stowage position to the waterline.

k. Item 32 contains proposed revisions to the requirements for provisions. Existing regulations require 2 lb. of hard bread plus 1 lb. of condensed milk per person in each lifeboat. Hard bread has not been used for many years, but provision manufacturers have instead provided a mixture of biscuits, sugar, and sometimes other components, which together with the condensed milk provided about 5,000 calories of food energy value per person. Recent experience with major commercial

vessel casualties indicates that the lifeboat rations are rarely, if ever used. Water is more important to long term survival. Consequently, the proposed regulations would require emergency provisions with a total food value of at least 10,000 kJ (2,390 calories), or roughly half of the present requirements. This is consistent with Regulation III/41.8.12 of SOLAS 74/83. Condensed milk would no longer be part of the ration requirement. The condensed milk was once intended for babies and those with injuries that prevented them from chewing. New Coast Guard approved rations will have to include a water soluble component to take care of these needs. Furthermore, condensed milk increases the body's need for water and is therefore not appropriate as a sea survival ration. Condensed milk has also not been available in corrosion-resistant containers, making it especially troublesome for stowage in lifeboats.

l. Item 35 would require a rain water collection device for many totally enclosed lifeboats. The water tanks in lifeboats are required to be designed for the stowage of collected rain water and open lifeboats are required to be equipped with protective covers that incorporate a rain water collection device. The rain water collection device requirement would result in all lifeboats being able to collect and make use of rain water.

m. Item 36 contains the requirement for sea anchors. SOLAS 74/83 no longer requires storm oil for the totally enclosed and partially enclosed lifeboats now required under that convention. Storm oil is dispensed from a container attached to the sea anchor, and is intended to lessen the chance of waves breaking over the lifeboat. The enclosures of the totally enclosed and partially enclosed lifeboats make storm oil less important. The proposed regulations would also not require storm oil in totally enclosed and partially enclosed lifeboats, but would continue to require it to be carried in open lifeboats.

n. Item 39 would require each new lifeboat and rescue boat on vessels in ocean, short international voyage, coastwise, and Great Lakes service to be equipped with a searchlight. This is a new requirement, since in the past, searchlights were required only on certain lifeboats on passenger vessels.

(1) Regulations III/41.8.29 and III/47.2.2.11 of SOLAS 74/83 require searchlights on lifeboats and rescue boats. Searchlights were not required on lifeboats in the past, since many lifeboats did not have engines and electrical systems. All new lifeboats in these services would be engine driven,

and would therefore have a means to keep the searchlight battery charged. Searchlights have also become more important since the widespread use of retroreflective material on survival equipment has made searching for survivors in the water at night a realistic possibility.

(2) Passenger vessel searchlights were previously approved under 46 CFR 161.006. This specification regulation originated over 40 years ago and has become obsolete. The American Society for Testing and Materials has developed a voluntary consensus standard (ASTM F1003) for lifeboat searchlights meeting the SOLAS 74/83 requirements. Item 39 proposes to require a searchlight certified to meet ASTM F1003. This notice also proposes removal of obsolete 46 CFR 161.006.

o. Item 40 would require lifeboats and liferafts on vessels in ocean, short international voyage, and coastwise service to carry a seasickness kit for each person, consisting of a seasickness bag and six doses of seasickness medication. This is consistent with Regulations III/38.5.21 and III/41.8.21 of SOLAS 74/83. The Marine Board of Investigation on the SILVER DOVE also recommended that seasickness medication be carried in lifeboats. Present regulations require inflatable liferafts to carry seasickness medication. The combination of ephedrine sulfate and promethazine hydrochloride prescribed as one option in the proposed regulations has been found by the Coast Guard to be the most effective seasickness remedy available at the present time. These drugs are taken orally and must remain in the digestive system for several hours to be completely absorbed. The other option, scopolamine in a transdermal patch, has been found to be significantly more effective in preventing seasickness than both dramamine and meclizine in clinical tests, according to its manufacturer. Its advantage is that since its medication is released through the skin, it will not be lost due to regurgitation as oral medication will. It takes four to six hours to become fully effective, and one patch provides about three days of effective medication. Both medication options seem to be reasonably stable throughout a wide temperature range, but both would probably be damaged by extended storage at temperatures above 50 °C (122 °F) or 55 °C (131 °F).

p. Regulation III/41.8.13 and III/41.8.14 of SOLAS 74/83 would require four parachute flares and six hand flares in lifeboats. Present Coast Guard regulations require 12 of each, and items

42 and 43 would continue to require 12 parachute flares and 12 hand flares in ocean, short international voyage, and coastwise services. These flares do not add great expense, but they can greatly assist search and rescue forces in locating survivors. For this reason, the present requirement is not proposed to be lowered to the minimum number required by SOLAS 74/83. Six hand flares and six parachute flares would also be required for the first time in survival craft on vessels in lakes, bays, and sounds service. These signals will assist searchers in locating survivors in these waters at night. Even recreational boats operating in some of these waters are now required to carry flares or other approved visual distress signals.

q. Item 46 would require survival instructions in each lifeboat in accordance with Regulation III.41.8.4 of SOLAS 74/83. Similar instructions are now required in all inflatable liferafts.

r. Item 48 would require thermal protective aids in lifeboats, liferafts, and rescue boats in ocean, short international voyage, and coastwise service. This item is discussed fully under the section on "Prevention and Reduction of Hypothermia."

s. Item 49 covers the lifeboat tool kit which must contain sufficient tools for minor adjustments to the engine and its accessories. The minimum contents of the kit are listed and are the same as the tool kit required in the present regulations. Comments are requested as to the adequacy of this kit and whether or not additional items such as a Phillips screwdriver need be added.

t. Item 51 would require 3 liters of water per person on lifeboats in ocean, short international voyage, and coastwise service in accordance with Regulation III/41.8.9 of SOLAS 74/83. The present regulations require 3 quarts of water per person. This change will result in an increase of approximately 6% in the amount of water carried. SOLAS 74/83 permits water to be dispensed with on liferafts with the SOLAS B pack (short international voyage). The regulations proposed in this notice would require water to be carried in liferafts on vessels in short international voyage service, since vessels in this service could be as far as 200 miles from port.

u. Items 25, 28, and 37 make reference to regulations in effect for vessels on June 30, 1986. These items are all components of traditional open lifeboats that would eventually be phased out of use. Present regulations contain detailed requirements for these components, which are not appropriate for modern performance-oriented regulations. These details would be included in a

Navigation and Vessel Inspection Circular (NVIC) so that they will be available for reference as long as the old lifeboats continue in use. A draft of the NVIC has been placed in the docket for examination and copying.

v. A number of items have been determined to be unnecessary for use on a MODU, unless the MODU is on an international voyage. MODUs operating in U.S. waters are always in known locations and there are usually other vessels or offshore activities nearby, so that some items intended for long term survival are not necessary. These include item 28, oars; item 32, provisions; and item 35, rain water collection device.

w. The lifeline is no longer listed as an item of lifeboat equipment because it is already required as part of the lifeboat under 46 CFR 160.035.

Hyperbaric Lifeboats

Some lifeboat manufacturers now offer hyperbaric lifeboats which include a diver decompression chamber built into a totally enclosed lifeboat. Divers must spend many hours or days allowing their bodies to readjust to atmospheric pressure after a long period underwater. Without proper decompression, divers can suffer serious injury or death. The hyperbaric lifeboat is intended to prevent these injuries in the event of abandonment of a vessel with decompressing divers aboard. The regulations proposed in this notice would not require hyperbaric lifeboats, but comments are specifically requested as to whether or not hyperbaric lifeboats or other provisions for decompressing divers, should be required on vessels supporting saturation diving operations.

Training and Drills

A number of revisions, including equipment requirements, are proposed to improve training and drills in survival systems. Many of the proposed revisions are consistent with recommendations made in a Coast Guard sponsored study titled "Shipboard Training and Maintenance for Merchant Vessel Survival Equipment." (See ADDRESSES section for information on how to obtain a copy of this report.) The proposed regulations are also responsive to recommendations to improve on-board training and drill requirements made by the Marine Boards of Investigation on casualties involving the GLOMAR JAVA SEA, the CHESTER A. POLING, the OCEAN EXPRESS, the EDMUND FITZGERALD, the TRANSHURON, and the WILLIAM T. STEELE. A similar recommendation was made by the National Transportation Safety Board

after its investigation of the loss of the WILLIAM T. STEELE.

a. Proposed § 199.153(c) would require launching appliances using falls and a winch to have a single-part fall arrangement. This is not required under SOLAS 74/83, but is included to facilitate training and other operations where recovery of the boat is required. Complete launching of survival craft during drills is important to make sure the crew is fully familiar with the launching procedure. If recovery of the survival craft after launching is too difficult, launching will be avoided. The presence of a heavy sheave block at the lower end of a multiple-part fall arrangement can make recovery difficult. It can make reattachment of the falls to the survival craft dangerous, even in good weather. One of the findings of the Marine Board of Investigation on the GLOMAR JAVA SEA, was that difficulty in reattaching the falls to the lifeboats discouraged the crew from launching the boat during drills. The single-part fall requirement would make a block at the lower end of the falls unnecessary. In addition to removing a hazard, facilitating recovery of the boat should encourage launching during drills. One disadvantage to the single-part fall requirement is that the fall wire would have to be about 40% larger in diameter than the wire on a two-part fall, making it stiffer and requiring larger sheaves and drums on the launching equipment.

b. Present regulations require vessels to hold regular fire and boat drills. These drills have been traditionally considered and conducted as a single drill. The requirements in Regulation III/18 of SOLAS 74/83 revise many of the requirements for the "abandon-ship" drill and also include requirements for on-board training. For this reason, and to emphasize the difference between the fire training and drills and the abandon ship training and drills, the regulations proposed in this notice separate these requirements into separate sections, and require the abandon-ship drills and fire drills to be conducted separately. Drills would be somewhat more comprehensive than they are presently, but would only be required on alternating weeks on vessels other than passenger vessels. Present regulations require weekly drills on all vessels. Passenger vessels would continue to be required to conduct weekly drills. The proposed fire drill requirements are in proposed § 35.10-2 for tank vessels, § 78.17-55 for passenger vessels, § 97.15-40 for cargo and miscellaneous vessels, § 109.213 for MODUs, § 167.65-2 for public nautical school vessels, and

§ 196.15-40 for oceanographic research vessels. Abandon ship training and drills are covered in proposed § 35.10-1 for tank vessels, § 78.17-50 for passenger vessels, § 97.15-35 for cargo and miscellaneous vessels, and § 109.215 for MODUs. Under proposed § 167.65-1 for public nautical school vessels, and § 196.15-35 for oceanographic research vessels, drill requirements are those required for either passenger vessels or cargo vessels, depending upon the lifesaving equipment installed. New training and drill requirements are discussed in the following paragraphs. Two comments suggested that training on board MODUs should be done in accordance with IMO Resolution A.538(13), "Maritime Safety Training of Personnel on Mobile Offshore Units". The training and drill requirements proposed in this notice for MODUs are based in part on Resolution A.538, and are not inconsistent with it. Resolution A.538 was also used in developing the revision to the IMO MODU Code discussed previously. On December 24, 1987, the Coast Guard published an NPRM on an Emergency Evacuation Plan for Manned OCS Facilities (52 FR 48717). The Final Rules for abandonment drills on MODUs developed as a result of this NPRM may have to be revised to take into account the Final Rules for Emergency Evacuation Plans, once those rules are published.

c. Requirements for mustering and attending to passengers are presently included in the passenger vessel regulations. A limited number of passengers may be carried on other vessels, so the proposed training and drill requirements for vessels other than passenger vessels include provisions for mustering and attending to passengers, when passengers are carried. Present regulations do not specifically require mustering of passengers, except for vessels on international voyages. Proposed § 78.17-50(b)(3) would require a muster of the passengers on other voyages, or at least calling the attention of the passengers to the emergency instructions on voyages of less than one day's duration. Under §§ 35.10-1(b)(3) and 95.15-1(b)(3), a similar requirement is proposed for other vessels when they carry passengers. This proposal is responsive to a recommendation of the National Transportation Safety Board arising from the grounding of the M/V PILGRIM BELLE in July 1985 (Recommendation M-86-60).

d. Abandon-ship training material would be required to be on board each vessel in accordance with SOLAS 74/83, regulations III/18.2 and III/51. This

training material could either be in the form of manuals or audio-visual training aids. Much of this material would normally be supplied by the survival equipment manufacturer. Many manufacturers produce this material at the present time, and make it available to vessel operators. Two comments did not favor a requirement for training manuals since the ship's officers would be able to indoctrinate the crew in its use, and since certificated personnel (lifeboatmen) would have been trained in lifesaving equipment. The training material is important because of the growing diversity of lifesaving equipment. Licensed and certificated personnel will have received basic training using certain lifesaving equipment, but the various lifesaving equipment designs have important differences. The training material prepared by equipment manufacturers provides professionally prepared instructional material and important reference information.

e. Present regulations require weekly fire and boat drills. Under Regulation III/25.2 of SOLAS 74/83, weekly drills are required only on passenger vessels. Because of an increased emphasis on abandon ship training outside of drills, the proposals in this notice would require drills on alternating weeks on vessels other than passenger vessels. Passenger vessels would continue to be required to conduct weekly drills. All vessels would be required to make sure that each crew member participates in at least one abandon ship drill per month. Present regulations contain no participation requirements. Under the proposed regulations, abandon ship training would be required at the same intervals as the drills. This training would make use of the training materials discussed in the preceding paragraph. These new training and drill requirements should typically result in either an abandon ship drill or a training session being held each week.

f. Present regulations require each lifeboat to be lowered to the water at least once every 3 months. The regulations proposed in this notice would require each boat not only to be lowered, but also to be launched and maneuvered in the water once every 3 months. This requirement comes from Regulation III/18.3.7 of SOLAS 74/83.

g. The proposed regulations would require at least one abandon ship drill every 3 months to be held at night, unless the master determines it is unsafe to do so.

h. Vessels equipped with davit-launched liferafts would be required to have special training in the use of these

rafts at intervals of not more than 4 months. Whenever practicable, this would include inflation and lowering of a liferaft. One comment suggested that a liferaft that is ready to be sent for servicing be permitted to be inflated and used for training. We have no objection to using a liferaft that is ready for servicing for this training. If a liferaft is used for this training, it could be a special liferaft intended for training purposes only, or a liferaft that is about to be sent for servicing.

Operational Readiness and Maintenance

a. One way to keep the lifeboats in good operating condition and keep the crew familiar with their launching and operation is to use them when the vessel is in a harbor or at an anchorage. Regulations proposed in this notice would permit such use of the lifeboats provided there are sufficient survival craft on the vessel to accommodate those remaining on board. The proposed regulations are in § 35.90-20(c) for tank vessels, § 78.95-20(c) for passenger vessels, and § 97.90-20(c) for cargo and miscellaneous vessels. Under proposed § 167.35-90 for public nautical school vessels, and § 196.90-20 for oceanographic research vessels, operational readiness requirements are those required for either passenger vessels or cargo vessels, depending upon the lifesaving equipment installed. Operators should be aware that use of a lifeboat as a launch to carry passengers may require that the lifeboat also be certificated as a small passenger vessel under 46 CFR Subchapter T.

b. Regulations proposed in this notice would require falls on launching appliances to be turned end for end at intervals of not more than 30 months and replaced at least every five years. This proposal is intended to prevent the failure of falls due to corrosion and other deterioration. The proposed regulations are in § 35.90-40 for tank vessels, § 78.95-40 for passenger vessels, and § 97.90-40 for cargo and miscellaneous vessels. Under proposed § 167.35-90 for public nautical school vessels, and § 196.90-20 for oceanographic research vessels, maintenance requirements are those required for either passenger vessels or cargo vessels, depending upon the lifesaving equipment installed. Section 109.305 contains the corresponding proposal for MODUs. It contains an alternative for a fall which can not be turned end for end. Such a fall would have to be carefully inspected between 24 and 30 months after its installation. If the inspection shows that the fall is faultless, it may be continued in service

up to 48 months after its installation, when it must be replaced. This provision is based on one in the draft revision of the IMO MODU Code. Comments are requested on whether or not a similar provision should be made for other vessels not subject to SOLAS 74/83.

One comment on the ANPRM opposed this requirement on the basis that it would not be necessary if proper maintenance and visual inspections are done on the falls. Another stated that there was no record of failures justifying the requirement, and that turning falls end-for-end could not be done because the fittings on opposite ends of the falls were different. Visual inspections are not fully satisfactory for wire rope falls, since only the exterior of the rope can be seen. There is a continuing history of wire rope failures averaging between 3 and 4 incidents a year on inspected U.S. vessels. Many of these failures have occurred with falls that are 4 to 5 years old. Turning the falls end-for-end every 2½ years causes the heavy wear areas to be distributed over different portions of the falls and should therefore safely extend their life to 5 years. Manufacturers can design fall attachments with identical fittings at each end to facilitate turning them end-for-end. Approved retrofits are also possible for existing designs. Other national shipping administrations have had similar experience with wire rope falls, which is what led to the adoption of this requirement as a part of SOLAS 74/83.

c. Present regulations require flares and smoke signals to be replaced three years after the date of manufacture. Emergency drinking water is to be replaced five years after its date of packing. Regulations like these are difficult to comply with since the person maintaining these items must either know the federal regulations, or else must refer to them. A simpler method is to require expiration dates to be marked on the equipment so that outdated equipment is evident. Expiration dates also allow for the use of items that the manufacturer can show are more durable than the three year or five year service life. Many approval regulations already require expiration dates. This notice contains a proposed revision to 46 CFR 160.040-6 that would add expiration dates to line throwing device expendables. Other proposed regulations concerning annual inspection and repair would make use of these expiration dates. The proposed regulations are in § 35.90-75 (c), (d), and (e) for tank vessels; § 78.95-75 (c), (d), and (e) for passenger vessels; § 97.90-75 (c), (d), and (e) for cargo and

miscellaneous vessels; and § 109.315 (c), (d), and (e) for MODUs. Under proposed § 167.35-90 for public nautical school vessels, and § 196.90-20 for oceanographic research vessels, maintenance requirements are those required for either passenger vessels or cargo vessels, depending upon the lifesaving equipment installed.

Additional Requirements for Tank Vessels

Tank vessels would be required to meet the same lifesaving system requirements as cargo vessels, with certain additions.

a. Under proposed § 199.310(a), tank vessels certificated to carry cargos that emit toxic vapors or gases would be required to have gas protected lifeboats. These are totally enclosed lifeboats with a compressed air system that can supply the occupants and the lifeboat engine for 10 minutes, in order to provide time to escape from a toxic gas cloud.

b. Proposed § 199.310(b) would require tankers carrying flammable cargos to have fire protected lifeboats. These lifeboats have the same compressed air system as gas protected lifeboats, but also have a water spray system designed to prevent the lifeboat from being damaged in a fire in the water for a period of at least 8 minutes. Fire protected lifeboats on tank vessels are required under regulation 26.1.7 of SOLAS 74/83. They were also recommended by the National Transportation Safety Board as a result of its investigation of the collision between the SS EDGAR M. QUEENY and SS CORINTHOS. One comment opposed the requirement for fire protected lifeboats on Great Lakes tankers, noting that these vessels are equipped with foam fire extinguishing systems, and that there had been no tanker casualties on the Great Lakes where fire protected lifeboats would have prevented any injury. The fire protected lifeboat is designed to go through fire on the water once the vessel has been abandoned. In such cases, the foam fire fighting system would be of little use since it is designed to fight a fire on deck, not on the water, and there would be no one on board to operate the system after the vessel is abandoned. Great Lakes tank vessels would be susceptible to the same fire hazards as any other tank vessel involved in a collision or explosion. The need for fire protected lifeboats was demonstrated in the collision between the SS EDGAR M. QUEENY and SS CORINTHOS. The possible consequences of fire on the water were also demonstrated when eleven crewmembers of the SS ESSO BRUSSELS died when their lifeboat was

engulfed in fire on the water. The fire resulted when the SS C.V. SEA WITCH collided with the SS ESSO BRUSSELS in New York harbor in 1973.

c. Proposed § 199.310(b) would prohibit lifeboats with aluminum hulls or canopies on tank vessels. Proposed § 199.320(c) would prohibit aluminum launching appliances. Aluminum has a low melting point compared to fiberglass and steel, which are the other materials used to construct lifeboats. The low melting point makes the aluminum lifeboat susceptible to destruction in even a short exposure to fire on the deck of a vessel. Aluminum lifeboats have been destroyed on deck before they could be used in tank vessel accidents. The Marine Board of Investigation on the collision between the SS KEYTRADER and SS BAUNE recommended that the use of aluminum lifeboats be discontinued on tankers. A test performed by the Coast Guard in 1979 confirmed the susceptibility of aluminum lifeboats to rapid destruction in a short-term fire. This test is covered in a report titled "Transitory Fire Resistance of Tanker Lifeboats." A copy of this report has been placed in the docket for this project, and a limited number of copies are available. (See ADDRESSES section for information on how to obtain a copy of this report.)

d. Survival craft would be required to be stowed in positions protected from fire and explosion under proposed § 199.310(d). This requirement is intended to keep the survival craft out of the "line of sight" of the area most likely to be involved in an explosion in order to shelter them from the shock wave generated by the explosion. Comments are specifically requested on the problems or advantages involved in this proposed requirement.

e. Certain tankers have damage stability characteristics that provide a final angle of heel greater than the 20° list for which survival craft launching appliances are generally intended. Since these tankers might not be abandoned until that final angle of heel is reached, proposed § 199.320(b) would require launching appliances on the low side of the vessel to be able to be launched at the final angle of heel.

Additional Requirements for Special Purpose Ships and Nautical School Ships

The IMO Code for Special Purpose Ships is intended for vessels that frequently carry persons in addition to the crew. Examples are oceanographic research vessels which carry a scientific team, and offshore supply vessels which may carry a variety of offshore workers.

These "special personnel" are neither crew members, nor passengers. The regulations proposed in this notice would classify oceanographic research vessels and offshore supply vessels as special purpose ships for the purpose of establishing requirements for lifesaving systems. The IMO Code for Special Purpose Ships has not been widely used in the United States. The code is intended for vessels of 500 tons gross tonnage and above. In the United States, 46 U.S.C. 2101(19) limits the term "offshore supply vessel" to vessels "of more than 15 gross tons but less than 500 gross tons", but for lifesaving purposes, the Code for Special Purpose Ships gives reasonable guidelines for vessels of this type.

As in the IMO Code for Special Purpose Ships, proposed § 199.405 would require these vessels to meet lifesaving system requirements for cargo vessels if they carry not more than 50 special personnel. If they carry more than 50 special personnel, they would be required to meet the lifesaving system requirements for passenger vessels. The proposed regulations would apply to all inspected oceanographic vessels including nonself-propelled vessels under 300 tons gross tonnage, presently exempted under 46 CFR 192.01-1(b) from all lifesaving equipment requirements except life preservers.

Under proposed § 199.505, public nautical school ships and civilian nautical school ships that meet the structural fire protection requirements for passenger vessel of the same size and service would be required to meet the lifesaving requirements for passenger vessels. Other nautical school ships would be required to meet the lifesaving requirements for cargo vessels.

Additional Requirements for Mobile Offshore Drilling Units

Mobile Offshore Drilling Units (MODUs) would be required to meet the same general lifesaving system requirements as any ocean service vessel, but a MODU may be one of several radically different types, most very different from conventional vessels. U.S. registered MODUs may operate in virtually any marine oil-producing area in the world. For these reasons, most MODUs need lifesaving systems that differ from either the cargo vessel or passenger vessel classifications that are used for other types of vessels. One comment on the ANPRM suggested that the regulations should be subdivided into separate requirements for the varying types of MODUs. As explained in the following paragraphs, the regulations proposed in

this notice do recognize the essential differences between types of MODUs and provide for appropriate requirements for each. As stated in some of the preceding discussions, the proposals in this notice for MODUs are based in part on a draft revision to the IMO Code for the Construction and Operation of Mobile Offshore Drilling Units (MODU Code) now under consideration by the members of IMO. This draft appears in various annexes to IMO paper "DE 30/14", of June 16, 1987. The draft revisions were prepared with the active participation of the United States. Various oil companies and drilling contractors based in the United States also participated in the development of the draft code through U.S. delegation working group meetings, and also at IMO through various international observer organizations. The IMO paper may be requested from the IMO at the address provided in the ADDRESSES section at the beginning of this notice, or from the Coast Guard contact listed in the section titled **FOR FURTHER INFORMATION CONTACT**.

a. A drillship is the one classification of MODU that is similar to a conventional vessel in many respects. Proposed § 199.600(c) would require a drillship to meet the same lifesaving system requirements as an oil tanker.

b. Under proposed § 199.605(a)(1), aluminum lifeboats would not be permitted to be used on MODUs. Proposed § 199.650(f) would prohibit aluminum launching appliances. This issue is discussed under the section of this notice titled "Additional Requirements for Tank Vessels".

c. The present regulations require totally enclosed lifeboats for 100% of the persons on board. Survival craft for an additional 100% capacity are also required in case the lifeboats can not be used. These additional survival craft can be either lifeboats or davit-launched inflatable liferafts. These requirements are based on assumptions similar to those made for conventional cargo ships that have two sides and need 100% capacity available on both sides in case the survival craft on one side can not be used. As stated above, many MODUs are very different from conventional vessels. They may have three, four, or even five sides. Their decks are often far above the water, and the area under the deck is usually open. For these reasons, the requirements for MODU lifesaving systems need to be developed considering the special characteristics of these vessels. The requirements for the number and arrangement of lifeboats and liferafts on MODUs would be completely revised under proposed

§ 199.605(b). Totally enclosed fire-protected lifeboats would be required in at least two widely separated locations on different sides of the MODU. The arrangement of the lifeboats would have to provide sufficient capacity to accommodate the total number of persons on board if either all the lifeboats in any one location are lost; or all the lifeboats on any one side of the MODU are lost or rendered unusable. For many MODUs with davit-launched survival craft in two separate locations, this requirement would result in an arrangement similar to the present regulations. For larger units with three or more separate survival craft locations on different sides, it would result in a reduction of the total number of davit-launched survival craft as compared to present regulations.

d. The present regulations in 46 CFR 108.503(a) allow a MODU permitted to carry 30 persons or less to have only one lifeboat. One comment suggested that at least two lifeboats be required on all MODUs, and that existing MODUs be given 2 years to comply. The regulations proposed in this notice require at least two lifeboats on all new MODUs as suggested by the comment, but under proposed § 199.10(e), existing MODUs would be permitted to retain their present arrangement. No retrofit requirement has been proposed because most of these small units could not be retrofitted without extensive modification. New units of this size can be more economically designed to accommodate two lifeboats in separate locations, although § 199.605(c) would provide an alternative for certain (usually small) self-elevating units which could not comply with the proposed requirements.

e. Present regulations allow the use of either davit-launched inflatable liferafts or totally enclosed lifeboats for the second 100% survival craft capacity. Davit-launched liferafts were developed originally for conventional vessels where they could be launched down the straight side of the hull. The open structure of MODUs makes davit-launched liferafts especially susceptible to damage due to being driven into structural members by wind and waves while being lowered. We are not aware of any MODU casualty where abandonment by davit-launched liferaft has been attempted. Totally enclosed lifeboats would be required under the proposed regulations for the first 100% survival craft capacity as well as for the additional survival craft needed to meet the requirement discussed in preceding paragraph (c.). Davit-launched liferafts would no longer be permitted to meet

the survival craft requirement on new MODUs, although under proposed § 199.15(b), they could be retained on MODUs already equipped with them. They could also be used on certain self-elevating units under § 199.605(c). In addition to the lifeboats, the regulations in proposed § 199.605(b) would require float-free liferafts with an aggregate capacity that will accommodate the total number of persons on board. These liferafts would be available for use in case the MODU is lost before the davit-launched survival craft are launched.

(1) Three comments on the ANPRM suggested that davit-launched liferafts were unsuitable for use on MODUs. One of the comments stated they were unnecessary because most newly constructed rigs were being built with 200% lifeboats. Another stated "the industry's general opinion is that davit-launched inflatable liferafts have proven to be expensive, ineffective and a maintenance nightmare, especially for units operating in remote locations. Such liferafts are a secondary, or backup, means of escape which has never gained the confidence of personnel serving on MODUs." The regulations proposed in this notice are consistent with these comments.

(2) One comment stated that the present davit-launched liferafts should be continued to be accepted in place of the float-free liferafts on existing MODUs. As explained in the preceding paragraph, the proposed regulations provide for continued acceptance of davit-launched liferafts on existing MODUs.

f. Proposed § 199.650(d) would require lifeboats on MODUs (other than drillships) to be arranged to clear each leg, column, footing, brace, mat, and each similar structure below the hull of a self-elevating unit and below the upper hull of a column stabilized unit, with the unit in an intact condition. A reduction in the total number of survival craft meeting this requirement would be allowed when the unit is in the transit mode and the number of personnel on board is reduced. The ANPRM discussed requiring survival craft to clear MODU structures by at least 5 m (16.5 ft.) when the survival craft is launched with the MODU on even keel. The ANPRM also discussed requiring survival craft to clear the same structures with the unit listed and trimmed at angles up to 20°. The purpose would have been to reduce the possibility that the survival craft would be damaged by collision with the lower structure of the MODU as they are launched.

(1) Two comments expressed concern about the 5 m clearance requirement

proposed in the ANPRM. They pointed out the disadvantages of a long cantilevered structure that would be necessary to get the lifeboat 5 m away from the hull, including structural problems and the danger crew members would face on such a structure in bad weather. The regulation proposed in this notice does not specify any minimum clearance. It follows the proposed IMO MODU Code revision in requiring that all survival craft clear the structure of the MODU in the upright, intact condition. Under damaged conditions, an aggregate survival craft capacity to accommodate the total number of persons permitted on board would be required to be capable of being launched safely, and clear of any obstruction. This is a more performance-oriented requirement than the 5 m clearance requirement discussed in the ANPRM. Under the requirement proposed in this notice, MODUs should be able to provide for adequate launching, and avoid the necessity of the cantilevered structures discussed in the comments.

(2) One comment noted that a new system (designated the PROD system) is under development that would hold the lifeboat pointed away from the unit and would prevent it from contacting the structure. The comment suggested that the 5 m clearance requirement would not be needed if such a system were used. The PROD system, or similar systems would be acceptable under the rules proposed in this notice.

(3) One comment pointed out that some units are limited by design to angles of less than 20°, and that lifeboats would be underwater in some cases at 20°. The rules proposed in this notice require operation of launching appliances based on list and trim derived from the damage stability characteristic of the unit, rather than requirements based on list and trim of 20°.

(4) Another comment supported the present regulations in 46 CFR 108.506 (a) and (b), and stated there was nothing in the various reports on the OCEAN RANGER that constituted a basis for changing the present requirements. The regulations in § 108.506(a) on a surface type unit require launching at a list of 15° and a trim of 10°. Under the rules proposed in this notice, surface type units would have to meet the same lifesaving requirements as a tank vessel. Launching equipment built to meet SOLAS 74/83 will be designed to operate on these MODUs as well as on conventional SOLAS 74/83 vessels, and there should be no difficulty meeting the requirement. For other MODUs, § 108.506(b) requires the adverse list and trim to be determined by the

characteristics of the unit. The comment stated that this requirement was appropriate and flexible. The rules proposed in this notice require operation of launching appliances based on list and trim derived from the damage stability characteristics of the unit. Contrary to the statement in the comment about there being no basis for changing the requirement, the abandonment of the OCEAN RANGER was evidently attempted with the unit listing well beyond the 12° list at which the lifeboats would clear the structure. Another casualty to the Norwegian semi-submersible ALEXANDER L. KIELLAND resulted in an attempt to abandon the unit in the lifeboats at a list of about 30°. We are not aware of any practical way to achieve clearance at angles beyond 20° for conventionally designed semi-submersibles, with the possible exception of free-fall lifeboats. Further comments are invited on this matter.

g. Proposed § 199.650(e) would require lifeboats with an aggregate capacity that will accommodate the total number of persons permitted on board to be capable of being launched safely, and clear of any obstruction in any damaged condition under 46 CFR 174, Subpart C. The ANPRM discussed consideration of a requirement for lifeboats to be launched into the water heading away from the unit. This would enable the boats to apply power immediately in the direction away from the unit. A boat launched broadside on the weather side of a MODU in distress would be driven farther into or under the unit during the time it takes to turn it away. This is a particular hazard on column stabilized MODUs that have large structures near water level. It would also be a hazard on self-elevating units where the lifeboats are installed adjacent to the legs, although the normal lifeboat installation on these units is between the legs. The proposed regulation would require that these potential problems be considered in the orientation of the lifeboats, but would not necessarily require them to be oriented in a direction headed away from the unit.

(1) One comment stated that orienting the lifeboats headed away from the unit could be a hazard on semi-submersible units where the lifeboats are mounted on the side of the unit. The comment pointed out that a semi-submersible is normally oriented with its bow toward prevailing wind and waves, so that a lifeboat launched on the side of the unit and headed away from it, would be broadside to the weather. The comment was not taken into account in preparing the proposed rule since the weather at

the time of abandonment may not be coming from the direction of the prevailing wind and waves at the site. Furthermore, the lifeboats are required to be self-righting, so if they are launched broadside and capsize, they will automatically right. We consider the hazard presented by collision with the structure of the MODU to be greater than the hazard presented by being launched broadside to the waves. Nevertheless, the regulation proposed in this notice would not specifically require the lifeboats to be oriented in a direction headed away from the unit.

(2) Two comments opposed a requirement for the lifeboats on self-elevating MODUs to be launched in a direction headed away from the unit. The comments noted that lifeboats on self-elevating MODUs are usually installed between the legs and are therefore not normally at hazard from a collision with them. We agree with the comments, and the proposed regulation would not require a lifeboat to be launched headed away from a self-elevating MODU.

Initial Inspections and Tests

The initial inspections and tests are those that are conducted whenever new lifesaving equipment is installed on board a vessel. A number of revisions and additions are proposed in this notice for these inspections and tests. These proposed tests and inspections appear in proposed § 31.01-5(c) for tank vessels, § 71.20-20(a)(1) for passenger vessels, and § 91.20-20(a)(1) for cargo vessels. One or more of those sections are cross-referenced in § 107.231(y) for MODUs, § 167.15-27(a) for public nautical school ships, and § 189.20-20(a)(1) for oceanographic research vessels. The requirements for public nautical school ships and for oceanographic research vessels depend upon whether cargo ship lifesaving equipment or passenger ship lifesaving equipment is installed.

a. Installation tests for launching appliances using falls and a winch have been revised to be consistent with SOLAS 74/83 and Part 2 of IMO Resolution A.521(13), "Recommendation on Testing of Lifesaving Appliances".

b. Tests for davit-launched liferaft launching equipment and rescue boat launching equipment are proposed in addition to tests for lifeboat launching equipment.

c. Installation tests have been added for free-fall lifeboats.

d. A two-hour operational test has been added for lifeboats and rescue boats. Although not in the present regulations, a similar test is often done to make sure that the boat is operating

properly before it is installed on the vessel, and that the boat has not been damaged in transportation to the shipyard. This test should be conducted on all lifeboats and rescue boats as part of the installation test procedure.

e. A requirement for an abandon-ship simulation has been added to make sure the survival system is suitable for abandonment in 30 minutes for vessels required to meet passenger vessel standards, and 10 minutes for other vessels. This test demonstrates how well the lifesaving equipment works as a survival system on the vessel. This simulation would not be required if a previously tested sister vessel with the same lifesaving equipment had successfully completed the test.

f. Another system test would require a lifeboat and a rescue boat to be launched with the vessel proceeding at 5 knots. This test will also verify the manufacturer's instructions for launching the boat with the vessel underway. This test would probably be conducted during sea trials.

Inspections for Certification

The inspections for certification are conducted whenever the vessel renews its certificate of inspection. A number of revisions and additions are proposed in this notice for these inspections. These proposed revisions and additions appear in § 31.10-15(d) for tank vessels, § 71.25-15 for passenger vessels, § 91.25-15 for cargo vessels, and § 107.239 for MODUs. One or more of those sections are cross-referenced in § 167.15-29(b) for public nautical school ships, and § 189.25-15 for oceanographic research vessels. The requirements for public nautical school ships and for oceanographic research vessels depend upon whether cargo ship lifesaving equipment or passenger ship lifesaving equipment is installed. These tests are similar to some of the tests conducted under the initial inspection for certification, but they are intended to establish that the lifesaving equipment is still in good and serviceable condition. The primary revisions and additions to the inspections for certification are:

a. Load testing would be required for rescue boat and liferaft launching devices, in addition to the present requirement to test lifeboat launching equipment.

b. Testing of free-fall lifeboat launching equipment would be required.

c. Tests of the air supply and water spray systems would be required for totally enclosed lifeboats equipped with them.

d. Inspectors would not stamp lifejackets, immersion suits, and work vests with the present "INSPECTED

AND PASSED" stamp unless the inspectors determined that it was necessary. Stamping might be necessary when a large number of devices must be inspected, or in other cases where confusion might arise over which devices have been inspected, and which have not.

e. An abandon-ship drill would be required to determine that the equipment is in working order, and that the crew has been appropriately trained in its use.

Miscellaneous Revisions

a. The existing regulations for tank vessels require ship's distress signals and line throwing appliance to be carried in a portable magazine chest in the vicinity of the bridge. Regulations for other vessels require a portable watertight container that can be carried on the bridge or inside the pilothouse. Proposed §§ 199.68(d) and 199.170(e) would allow the use of either method of stowage on all vessels.

b. The Lyle gun has been removed from the regulations as an acceptable line throwing apparatus. There are few, if any, Lyle guns still in service.

c. Proposed § 199.70(a)(2) would revise the requirement for the lines secured to ring lifebuoys in order to be consistent with SOLAS 74/83. The existing requirements are for a line 15 fathoms (90 ft.) long. The line must be buoyant on vessels on an international voyage. The proposed regulation requires all lines to be buoyant, and to be at least as long as twice the height where the buoy is stowed above the waterline, or 30 m (100 ft.), whichever is the greater. Additional requirements for the diameter, strength, and ultraviolet resistance are also proposed.

d. Proposed § 199.72(a) would require lifejackets on vessels in international voyage, short international voyage, or coastwise services, to meet Regulations III/30.2 and III/32.1 of SOLAS 74/83. Vessels in other services could continue to use lifejackets of the type currently approved by the Commandant as "life preservers". The "SOLAS" lifejackets must float wearers slightly higher in the water, therefore they have more buoyancy than "life preservers". The SOLAS lifejackets are also more bulky and slightly more expensive than life preservers. The current life preserver is considered suitable for continued use in Great Lakes; lakes, bays and sounds; and river services.

e. Present regulations for passenger vessels require "an approved life preserver for each person carried and in addition, * * * a number of life preservers suitable for children equal to

at least 10 percent of the persons carried" (46 CFR 75.40-10(a)). The Coast Guard interprets this regulation as requiring a child-size life preserver for each child carried, even if more than 10% of the persons on board are children. Other vessels are required to carry a "suitable number of children's life preservers", "when children are carried" (46 CFR 94.40-10(c)). Proposed § 199.72(a)(1)(i) would require all vessels carrying passengers to carry a number of child-size lifejackets equal to at least 10% of the number of passengers permitted on board, or such greater number as necessary to provide a lifejacket for each person smaller than the lower size limit of the adult lifejackets. This proposed regulation would state the requirement for child-size life preservers more clearly than in the present regulations for passenger vessels. This proposed requirement is the same as Regulation III/7.2.1.1 of SOLAS 74/83 and means that any vessel permitted to carry passengers would have to carry child-size lifejackets. Proposed § 199.72(b)(2) would permit vessels not under SOLAS 74/83 to omit the child-size lifejackets if children are never among the passengers carried. This regulation means that child-size lifejackets well in excess of 10% of the total number of passengers permitted on board, may be required for a vessel that carries a large number of children on infrequent occasions, or for a vessel that carries large numbers of passengers over short distances and does not normally control the number of children carried.

(1) One comment called the requirement for children's lifejackets reasonable. Another stated total opposition noting that a child can use an adult lifejacket. The comment also pointed out that in his particular operation, stowage space was minimal, a lifejacket has never been needed, all operations are close to the river bank, and the water is not deep enough to submerge the vessel. A third comment also cited a lack of stowage space as a problem. These last two comments regard the proposed regulation for children's lifejackets as a change from the present requirements. The proposed regulation is only a clarification of present requirements for passenger vessels. The only vessels that will have a revision in their requirements are cargo vessels that also carry passengers. Most of these vessels will have to have a minimum number of child-size lifejackets equal to 10% of the passengers permitted to be carried. We understand the problems of passenger vessel operators, but can not agree that

adult lifejackets can necessarily be used for any and all children. If the lifejacket is too big for a child, it may come off easily, or its buoyancy may be too low on the child's body causing the child to float with the head under water. The Coast Guard has worked on the problem by testing some adult lifejackets on children. Some were found to be satisfactory for children over 75 lb. Recognizing that future "adult universal" size lifejackets may be approved for persons smaller than 90 lb., the regulations proposed in this notice refer to the lower size limit of the lifejacket.

(2) Comments on the issue of lifejackets for children are invited. Comments suggesting alternative approaches should consider the need to provide appropriate flotation devices for all children carried, as well as the problems that are experienced by operators in complying with the requirement.

f. Proposed § 199.75 would require each lifejacket and immersion suit carried on a vessel engaged in ocean, short international voyage, coastwise, or Great Lakes service, to have a lifejacket light, similar to existing regulations. Vessels in ocean service would be required to have lights meeting Regulation III/32.3 of SOLAS 74/83. Other vessels would be required to have lifejacket lights meeting the present 46 CFR 161.012. The "SOLAS" light would have to meet a brightness requirement after 8 hours of operation. The lights now approved under 46 CFR 161.012 have an initial brightness similar to the SOLAS light, but they are not required to be as bright at the end of 8 hours of operation. A battery-powered SOLAS light will therefore be slightly larger and more expensive than a comparable 46 CFR 161.012 light. Normally, the Coast Guard would propose to revise the existing specification regulation to bring all lights up to the SOLAS 74/83 standard, but in this case, the lights approved under 46 CFR 161.012 include a "chemiluminescent" light that can not practically be modified to meet the SOLAS 74/83 requirements. This light does not meet the SOLAS 74/83 brightness requirement after 8 hours. When it is cold, the chemical reaction is slowed so that the light is dimmer, but lasts much longer. This light has proven to be popular with vessel operators, and it is apparently more inherently reliable than other approved lights which are all battery powered. Therefore, lights approved under 46 CFR 161.012 are proposed to be acceptable for domestic services, in the belief that the higher reliability available with these devices

is a worthwhile tradeoff for their slightly lower operational effectiveness.

g. Proposed § 199.80 contains more detail on the contents of the station bill than present regulations. This was done to meet the requirements of Regulation III/8 of SOLAS 74/83, and also to cover additional necessary items. The Coast Guard used to provide the form CG-848 series to vessel operators as station bills, but these forms have been discontinued. The proposed section therefore contains more descriptive information on the content of the station bill. Proposed § 199.80 would also apply to all cargo vessels and tank vessels over 500 tons gross tonnage, so for the first time, a station bill would be required on large barges covered by these rules. Currently, the Coast Guard is involved in developing an ASTM consensus standard under committee F 25.07, General Support Requirements, for locating and preparing station bills. Its text corresponds to the proposed requirement. Should this standard be adopted by ASTM prior to publication of the final rule, the ASTM standard could be incorporated by reference, in place of the text in proposed § 199.80.

h. Proposed § 199.90 contains requirements for posted operating instructions for survival craft and their launching controls, as required under Regulation III/9 of SOLAS 74/83. Currently, the Coast Guard is involved in developing an ASTM consensus standard under committee F 25.07, General Support Requirements, for location and instruction symbols for evacuation and lifesaving equipment. Its text corresponds to the proposed requirement. Should this standard be adopted by ASTM prior to publication of the final rule, the ASTM standard could be incorporated by reference, in place of the reference to IMO Resolution A.603(15).

i. Present regulations require winches for gravity davits to have a fleet angle not exceeding 8°, and no more than a single wrap of wire rope on the drum. Other types of davits may have more than one layer of wrap. The purpose of the single wrap on gravity davit winch drums is to prevent the wire from winding unevenly onto the drum when the survival craft is recovered. Uneven winding could cause separate falls to wind onto the drum at different speeds, or cause fouling of the wire on the drum. The requirements for gravity davit winches in proposed § 199.153(f) and (g) would be less restrictive. Two layers of wire rope would be permitted on the drum, provided the fleet angle does not exceed 4°. A fleet angle of 4° or less should not result in uneven winding,

therefore, a second layer of wire can be permitted. This should provide manufacturers with more design flexibility.

j. Proposed §§ 199.211 and 199.271 would slightly revise the requirements for the numbers of ring life buoys required to be carried. Most of the changes result from changing break points based on vessel length in feet to points based on length in meters. The changes would make the requirements for vessels in ocean and short international voyage service consistent with Regulations III/21 and III/27 of SOLAS 74/83. Proposed requirements for other vessels are similar to existing regulations. The following tables show only the changes that would occur as a result of the rules proposed in this notice. Vessels in size ranges not shown on the tables would not be affected.

PASSENGER VESSELS, OCEAN AND SHORT INTERNATIONAL VOYAGE

Length of vessel in feet	No. of ring life buoys (proposed in this NPRM)	No. of ring life buoys (existing regulations)
196 ft.-300 ft.	12	8
393 ft.-400 ft.	18	12
590 ft.-600 ft.	24	18
787 ft.-800 ft.	30	24

CARGO AND TANK VESSELS, OCEAN VOYAGE

Length of vessel in feet	No. of ring life buoys (proposed in this NPRM)	No. of ring life buoys (existing regulations)
98 ft.-100 ft.	4	3
100 ft.-196 ft.	4	6
200 ft.-300 ft.	6	8
300 ft.-328 ft.	6	12
400 ft.-492 ft.	12	18
600 ft.-656 ft.	18	24
800 ft.-820 ft.	24	30

PASSENGER VESSELS OTHER THAN OCEAN AND SHORT INTERNATIONAL VOYAGE

Length of vessel in feet	No. of ring life buoys (proposed in this NPRM)	No. of ring life buoys (existing regulations)
Under 98 ft.	3	2
98 ft.-100 ft.	4	2
196 ft.-200 ft.	6	4
297 ft.-300 ft.	12	6
590 ft.-600 ft.	24	18
787 ft.-800 ft.	30	24

CARGO AND TANK VESSELS OTHER THAN OCEAN VOYAGE

Length of vessel in feet	No. of ring life buoys (proposed in this NPRM)	No. of ring life buoys (existing regulations)
98 ft.-100 ft.	3	2
196 ft.-200 ft.	6	4
300 ft.-328 ft.	6	12
400 ft.-492 ft.	12	18
600 ft.-656 ft.	18	24
800 ft.-820 ft.	24	30

k. Emergency signals are listed in proposed § 35.10-5 for tank vessels, § 78.13-1 for passenger vessels, § 97.13-1 for cargo and miscellaneous vessels, and § 109.503 for MODUs. Under proposed § 167.35-5 for public nautical school vessels, and § 196.13-1 for oceanographic research vessels, emergency signal requirements are those required for either passenger vessels or cargo vessels, depending upon the lifesaving equipment installed. The requirements specify what each signal must be, except for a man-overboard signal and an abandon-ship signal which must be established for each vessel and listed on the station bill. This notice does not attempt to resolve the differences that exist for emergency signals on different types of vessels. For instance, on MODUs, the signal to man the abandon unit stations is a continuous sounding of the general alarm and the whistle. On other vessels, the continuous signal is for fire and emergency stations. On MODUs, the signal for emergency stations is a rapid succession of short soundings, while a rapid succession of short soundings followed by a long sounding is the signal for boat stations on other vessels. Comments are specifically requested as to the need for establishing uniform signals for these commands, and what those signals should be. Comments should address whether or not a separate abandon-ship signal is required in addition to the signals to go to boat stations (six short blasts, one long), and to lower boats or rafts (one short). We are aware of at least two different signals in common use for man overboard (five short blasts, and also four sequences of three long blasts each).

1. Proposed requirements for manning and supervision of lifeboats and liferafts are in § 35.11-5 for tank vessels, § 78.14-5 for passenger vessels, § 97.14-5 for cargo and miscellaneous vessels, and § 109.323 for MODUs. Under proposed § 167.35-10 for public nautical school vessels, and § 196.14-1 for oceanographic research vessels,

manning and supervision requirements are those required for either passenger vessels or cargo vessels, depending upon the lifesaving equipment installed. The number of certificated lifeboatmen (including deck officers and able seamen) required for a lifeboat in the present regulations is based on the size of the lifeboat. Only one is required in a liferaft. The proposed regulations would require a minimum of one certificated person for each survival craft, and a sufficient number of trained and certificated persons for the various tasks involved in abandoning the vessel. A second certificated person would be required for each lifeboat on vessels in ocean service, and for each lifeboat permitted to carry more than 40 persons on all vessels except those in river service. Each vessel that carries passengers and is not in river service would have to have at least one certificated person for every 20 passengers assigned to each lifeboat. On certain passenger vessels, persons "practiced in the handling and operation of liferafts" could be permitted to be placed in charge of liferafts instead of certificated persons. This is based on a similar provision in Regulation III/10.4 of SOLAS 74/83.

m. Under existing regulations, a lifeboat must be marked and equipped for the number of persons for which it is approved. Often lifeboats are larger than necessary to accommodate the number of persons assigned to them on the vessel. If the vessel owner wants to equip the lifeboat for a smaller number of persons, the lifeboat must be recertified for the smaller number, and a new recertification plate attached to the boat. The marking requirements for lifeboats proposed in this notice would simplify the procedure. The number of persons capacity painted on the lifeboat would determine the number of persons the boat must be equipped for. This number would have to be equal to or less than the number the boat was originally approved for. The proposed regulations are in § 35.40-40(b)(2) for tank vessels, § 78.47-60(b)(2) for passenger vessels, § 97.37-37(b)(2) for cargo and miscellaneous vessels, § 108.645(b)(2) for MODUs, and § 196.37-37(b)(2) for oceanographic research vessels. Under proposed § 167.55-5(j), public nautical school vessels would have to meet the marking requirements in the passenger vessel regulations.

Additional Requirements for Existing Vessels

The inspection and operational requirements proposed in this notice

generally apply to all vessels, but most major equipment requirements would apply immediately only to vessels constructed on or after July 1, 1986. The major equipment exemption for existing vessels (those built before July 1, 1986) is in proposed § 199.10(e). Proposed § 199.15(a) establishes the basic requirements for an existing vessel as those requirements in effect for the vessel on June 30, 1986. Section 199.15 also contains the proposed requirements to "phase-in" certain equipment requirements on existing vessels. These are:

a. When any lifesaving equipment is replaced on a vessel or added to it, the equipment would generally be required to meet the new requirements (§ 199.15(b)). An exception to this requirement would be allowed for a survival craft replaced without replacing its davit and winch, or vice versa.

b. On or before July 1, 1991, each vessel in ocean, short international voyage, or coastwise service, would be required to have survival craft portable two-way radiotelephone equipment (§ 199.15(c)).

(1) Under Regulation III/1.6 of SOLAS 74/83, vessels with SOLAS Safety Certificates would have to have this equipment not later than July 1, 1991.

(2) The requirement would also apply to existing vessels in coastwise service, even though SOLAS 74/83 does not apply to these vessels.

c. On or before July 1, 1991, each passenger vessel in ocean, short international voyage, coastwise, and Great Lakes service, would be required to have at least three immersion suits for the crew of each lifeboat. A thermal protective aid would be required for each other person on board. An exemption from the requirement would be allowed for vessels operating only on routes between 32° N and 32° S latitude (§ 199.15(d)).

(1) This requirement would also apply to other vessels that would be required to meet the passenger vessel lifesaving equipment requirements, including nautical school ships, oceanographic research vessels carrying more than 50 scientific personnel, and offshore supply vessels carrying more than 50 offshore workers.

(2) Under Regulation III/1.6 of SOLAS 74/83, vessels with SOLAS Safety Certificates would have to have this equipment not later than July 1, 1991.

(3) The requirement would also apply to existing vessels in coastwise and Great Lakes service, even though SOLAS 74/83 does not apply to these vessels.

(4) The proposed requirement is based on Regulation III/21.4 of SOLAS 74/83,

which includes an exemption from the immersion suit requirement for vessels with totally or partially enclosed lifeboats in paragraph 4.2.1. The proposed regulations in this notice do not include such an exemption because it is not permitted by statute (46 U.S.C. 3102(a)).

d. On or before July 1, 1991, each cargo vessel and tank vessel in ocean or coastwise service would be required to have liferafts for 100% of the persons on board the vessel in addition to the lifeboats, rather than the present 50% (§ 199.15(e)).

(1) This requirement would also apply to other vessels that would be required to meet the cargo vessel lifesaving equipment requirements and that do not substitute liferafts for lifeboats. This category could include oceanographic research vessels carrying not more than 50 scientific personnel, and offshore supply vessels carrying not more than 50 offshore workers.

(2) Under Regulation III/1.6 of SOLAS 74/83, vessels with SOLAS Safety Certificates would have to have these extra liferafts not later than July 1, 1991.

(3) The requirement would also apply to existing vessels in coastwise service, even though SOLAS 74/83 does not apply to these vessels.

e. On or before July 1, 1991, each vessel would have to have openings in rails or bulwarks for launching liferafts or inflatable buoyant apparatus (§ 199.15(f)).

f. On or before July 1, 1991, each set of lifeboat davits on a cargo vessel or tank vessel in ocean, coastwise, or Great Lakes service, would be required to be gravity type davits (§ 199.15(g)).

(1) This requirement would also apply to other vessels that would be required to meet the cargo vessel lifesaving equipment requirements and that do not substitute liferafts for lifeboats. This category could include oceanographic research vessels carrying not more than 50 scientific personnel, and offshore supply vessels carrying not more than 50 offshore workers.

(2) This proposed requirement arises from the Coast Guard investigation of the capsizing and sinking of the SS MARINE ELECTRIC in February, 1983. The Marine Board of Investigation found launching a lifeboat under the adverse conditions the MARINE ELECTRIC encountered to be much more difficult to perform with quadrantal davits than with gravity davits. The board recommended "that all vessels currently fitted with quadrantal davits be required to install gravity davits for the launching of their lifeboats." The Commandant of the Coast Guard stated in concurring with this recommendation, "The Coast

Guard will propose that inspected cargo and tank vessels in ocean and coastwise service, equipped with mechanical davits of any type, be fitted with enclosed lifeboats and launching systems that meet SOLAS 74/83 no later than July 1, 1991." (See the discussion that follows in section (g) on retrofit proposals for enclosed lifeboats.)

(3) The proposed retrofit requirement for gravity davits does not apply to vessels limited to river, or lakes, bays, and sounds service, where the severe conditions encountered by the MARINE ELECTRIC are not likely to be found. It does, however, extend to vessels in Great Lakes service since very severe sea conditions can prevail in those waters. Four casualties on the Great Lakes in the past 30 years illustrate the need for replacement of mechanical davits. In the case of the SS CARL D. BRADLEY which sank on Lake Michigan in 1958, the lifeboat was in the process of being launched when the vessel sank. The SS Cedarville sank in the straits of Mackinac in 1965 after a collision. Both lifeboats were in the process of being lowered when the vessel capsized and sank. There were no survivors from the stern section of the SS DANIEL J. MORRELL which broke up and sank in Lake Huron in 1966, so it is not known if the process of launching either of the lifeboats had begun. There were approximately eight minutes available to abandon ship which would have been enough time to launch a totally enclosed lifeboat with a modern gravity davit. The crew of the SS EDMUND FITZGERALD may not have had time to even attempt to launch the lifeboats when the vessel sank in Lake Superior in 1975, but testimony taken by the Coast Guard Marine Board of Investigation indicated that former crewmembers doubted that the lifeboats could have been launched in severe weather.

(4) Although the evidence from the MARINE ELECTRIC casualty is the primary justification for the gravity davit retrofit requirement, the casualty record indicates that there have been problems with launching of lifeboats from mechanical davits in other casualties. In addition to those discussed in the preceding paragraph, these other casualties include the SS BUNKER HILL which exploded on March 6, 1964, and the M/V CHESTER A. POLING which sank on January 10, 1977.

(5) The proposed gravity davit retrofit requirement is consistent with a recommendation made by the National Transportation Safety Board (NTSB) in its report on the collision of the U.S.

Coast Guard Cutter BLACKTHORN, and the tankship CAPRICORN on January 28, 1980. NTSB was concerned not with the capability to abandon ship, but with the difficulty the CAPRICORN had in launching one of its lifeboats to assist the crew of the sunken BLACKTHORN. In recommending that U.S. merchant vessels over 1,600 gross tons be equipped with gravity davits, NTSB stated that the accident illustrated "the delays in launching lifeboats using sheath-screw type davits." The report goes on to say, "the Safety Board does not believe that outdated lifesaving equipment should be permitted to remain in service indefinitely. The Coast Guard should establish a service life after which all lifesaving equipment on U.S. merchant vessels should be upgraded to meet current vessel standards." This is, in effect, what this proposed retrofit requirement and the enclosed lifeboat retrofit requirement, covered in the discussion that follows in section (g) would do.

(6) Two identical comments suggested that the Coast Guard go slow on retrofit requirements since new equipment will not result in fail-safe systems. Another comment stated that the retrofit requirements would be too costly for existing vessels. The retrofit requirements proposed in this notice take the concerns expressed in these comments into account. We are not proposing that all launching systems be replaced with the higher-performing systems in SOLAS 74/83. This proposal would result in the replacement of only the most antiquated launching systems that do not have gravity davits. The requirement to retrofit totally enclosed lifeboats, discussed in following section (g.), would extend over many years. This would allow the boats to be replaced whenever existing boats are no longer serviceable, or in need of extensive repairs.

g. On or before July 1, 2001, each lifeboat on a cargo vessel or tank vessel in ocean, coastwise, or Great Lakes service, would be required to be a totally enclosed lifeboat (§ 199.15(h)).

(1) This requirement would also apply to other vessels that would be required to meet the cargo vessel lifesaving equipment requirements and that do not substitute liferafts for lifeboats. This category could include oceanographic research vessels carrying not more than 50 scientific personnel, and offshore supply vessels carrying not more than 50 offshore workers.

(2) This proposed requirement also arises from the Coast Guard investigation of the capsizing and sinking of the SS MARINE ELECTRIC in February, 1983. In considering the

difficulties involved in launching the lifeboat, the Commandant of the Coast Guard stated, "the Coast Guard will propose that all existing inspected cargo and tank vessels in ocean and coastwise voyages, presently equipped with open lifeboats and gravity davits, be fitted with enclosed lifeboats and launching systems that meet SOLAS 74/83 no later than July 1, 2001."

(3) In combination with the proposed requirement for launching appliances discussed in preceding section (f.), this proposed requirement would make sure that antiquated lifesaving equipment is not perpetuated on vessels that will continue in service well into the 21st century. It is also consistent with the NTSB recommendation discussed in paragraph (e.) (5) to establish a service life after which all lifesaving equipment on U.S. merchant vessels should be upgraded to meet current vessel standards. On the other hand, the period provided for compliance will permit vessel operators to complete the retrofit at a time that is most economical to do so. Many existing vessels will undergo an extensive overhaul, repair, or refitting in a shipyard within this time period, which would be a good time to complete this work. Others will have to replace lifeboats due to damage, loss at sea, or deterioration. For those vessels, the cost of the proposed requirement would be limited to the difference in cost between an open lifeboat and an enclosed lifeboat. Other vessels will undoubtedly wait until the deadline to complete the retrofit.

(4) The ten-year difference between the proposed 1991 deadline to meet the gravity davit requirement, and the 2001 deadline to meet the totally enclosed lifeboat requirement will allow owners of vessels with a limited remaining service life in 1991 to rectify the launching problems on a vessel with mechanical davits, without going to the expense of replacing the lifeboat. Other vessels affected by the proposed gravity davit requirement, that have a service life projected beyond 2001, will probably fit the totally enclosed lifeboat at the same time as the new davit, as anticipated in the Commandant's response to the MARINE ELECTRIC casualty quoted in paragraph (e.) (2).

(5) One comment suggested that Great Lakes vessels be exempted from a lifeboat retrofit requirement. The proposed retrofit requirement for totally enclosed lifeboats extends to vessels in Great Lakes service since very severe sea conditions and cold water temperature can prevail in those waters. The retrofit requirement is consistent with the recommendations of the Coast Guard Marine Board of Investigation on

the sinking of the SS EDMUND FITZGERALD in Lake Superior on November 10, 1975. The board recommended that measures be implemented to improve the entire abandon ship system.

h. The use of aluminum for the hull or canopy would be prohibited for new lifeboats on an oil tanker, chemical tanker or gas carrier (§ 199.15(i)). This is to prevent the boat from being destroyed quickly in a casualty that results in high temperatures for a short period of time in the vicinity of the boat.

i. On or before April 1, 1991, life floats and liferafts which are not davit-launched would not be permitted to be counted toward the requirement for davit-launched liferafts on mobile offshore drilling units, with the exception of submersible MODUs. Each mobile offshore drilling unit would be required either to have lifeboats and liferafts that meet proposed § 199.605(b), or have the combination of totally enclosed fire-protected lifeboats and davit-launched liferafts that meets the present regulations in 46 CFR 108.503 and 108.505 (§ 199.15(j)). Open lifeboats installed on board units prior to January 3, 1979 could be used in place of the davit-launched liferafts.

(1) At the time the Coast Guard first published the regulations for mobile offshore drilling units, it also published Navigation and Vessel Inspection Circular (NVIC) 4-78 covering inspection and certification of units built prior to the effective date of the regulations. NVIC 4-78 allowed existing lifesaving equipment such as open lifeboats, "throwover" liferafts, and life floats, to be used to meet half of the requirement for survival craft to accommodate 200% of the persons on board the unit. Whenever this existing equipment needed extensive repairs, it had to be replaced with either totally enclosed lifeboats or davit-launched liferafts. The proposed regulations would end the acceptance of throwover liferafts and life floats for this purpose. Open lifeboats could continue to be used as long as they are in good working order and do not require extensive repairs.

(2) The April 1, 1991 deadline date was selected after an extended dialog with the International Association of Drilling Contractors on the interpretation of NVIC 4-78. The "existing" throwover liferafts and life floats installed on a unit over 10 years ago should be nearing the end of their useful lives, and this proposed rule would establish a firm deadline for their replacement. In a February 5, 1988 letter to the International Association of

Drilling Contractors, the Coast Guard agreed to consider extension of the deadline for the few units for which this would create a severe hardship. Owners requesting such an extension must address all pertinent safety issues and must provide technical justification for the extension for each MODU. In any case, extensions beyond March 31, 1993 would not be considered.

j. On or before July 1, 1991, each passenger ferry and each other passenger vessel not on ocean, short international voyage, or coastwise service would be required to have sufficient lifeboats, liferafts, and inflatable buoyant apparatus to accommodate everyone on board (§ 199.15(k)). During those periods of the year when the water temperature exceeds 15 °C (59 °F), the number of survival craft on board could be reduced or the number of passengers increased to the point where the vessel has survival craft for 10% of the persons on board.

(1) Most vessels could meet this proposed regulation by carrying inflatable buoyant apparatus. This would provide out-of-the-water support for survivors in the case of a casualty.

(2) The vessels affected by this proposed requirement operate in waters relatively close to shore and now carry only life preservers as survival equipment. One or two small boats are also carried, but these are intended primarily to rescue persons that fall overboard. They can only accommodate a few persons. An accident in cold water that requires those on board to abandon ship would probably result in a number of fatalities due to the cold water alone, if there was no way for survivors to stay out of the water.

k. On or before July 1, 1991, each lifeboat on a vessel would be required to be propelled either by motor or by hand-propelling gear if the lifeboat has a capacity of at least 60 persons, but less than 100 persons. A lifeboat with a capacity of 100 persons or more would be required to be motor propelled (§ 199.15(l)).

Note: Hand-propelled lifeboats are sometimes confused with oar-propelled lifeboats. Oar-propelled lifeboats are maneuvered with oars or sails. Hand-propelled lifeboats are powered by a series of manually-operated levers that drive a propeller through a system of mechanical links and gears.

(1) All new Coast Guard approved lifeboats built since 1965 have been required to meet these requirements, except for hand-propelled lifeboats over 100 persons intended as replacements for previously approved hand-propelled lifeboats. Since 1953, all new lifeboats of

at least 60 persons capacity have been required to be either hand-propelled or motor propelled. This proposed regulation would therefore require the upgrading only of larger oar-propelled lifeboats that are 38 years old in 1991, and hand-propelled lifeboats over 100 persons capacity that are, for the most part, 25 years old or older on July 1, 1991.

(2) For lifeboats that are still in serviceable condition, lifeboat manufacturers can provide Coast Guard approved engine or hand-propelling gear retrofits. Complete replacement of a lifeboat in good condition would not be necessary to meet this proposed requirement.

l. SOLAS 74/83 regulations III/1.4.4 and 1.4.5 permit lifesaving equipment installed on existing vessels before July 1, 1991 to not comply fully with the requirements of Chapter III. The regulations proposed in this notice have a similar provision in § 199.15(m).

m. Retroreflective material would be required to be added to lifeboats, rescue boats, and ring life buoys that are not already provided with it by July 1, 1991. Lifejackets and exposure suits are already required to be fitted with retroreflective material. These requirements are in proposed § 35.40-40(e) and § 35.40-50(f) for tank vessels, § 78.47-60(e) and § 78.47-65(f) for passenger vessels, § 97.37-37(e) and § 97.37-43(f) for cargo vessels, § 108.645(e) and § 108.649(f) for MODUs, and § 196.37-37(e) and § 196.37-43(f) for oceanographic research vessels. Marking under the passenger vessel regulations would be required under proposed § 167.55-5 (j) and (n) for public nautical school vessels. All of these proposed regulations reference a draft IMO recommendation on the placement of retroreflective material. The draft is expected to be formally adopted as an IMO resolution in November 1989. Three comments on the ANPRM supported the proposed requirement for retroreflective material.

Regulatory Evaluation

These proposed regulations are considered to be non-major under Executive Order 12291 and nonsignificant under the DOT regulatory policies and procedures (44 FR 11034; February 26, 1979). A draft regulatory evaluation has been prepared and placed in the docket. It may be inspected or copied at the Office of the Marine Safety Council (see section titled "ADDRESSES").

The draft evaluation estimates a total one-time cost by July 1, 1991 of \$22.5 M (million) to comply with the retrofit requirements in the proposed rules.

About \$10 M of the one-time cost, or about 44%, would be required to retrofit gravity davits and winches on certain cargo and tank vessels which are now equipped with mechanical davits. Just under \$5 M or about 22% of the one-time cost, arises from the proposal to require passenger vessels operating in cold waters in domestic services to have survival craft for all persons on board the vessel. This proposal arises in part from Congressional direction in the 1984 Coast Guard Authorization Act which directs the Secretary to proceed vigorously with efforts to improve lifesaving equipment on passenger ferries. Most of the remainder of the costs arise directly from SOLAS 74/83 requirements, such as about \$2 M for cargo and tank vessels to double their float-free liferaft capacity to 100% of the persons on board. Two of the largest cost items arise from the new Global Maritime Distress and Safety System (GMDSS), which is expected to be adopted soon as the third set of amendments to SOLAS 1974. Satellite EPIRBs would cost just under \$2.5 M. Survival craft radar transponders (SARTs) or their equivalent, would cost about \$1.2 M.

The approximate 1991 retrofit cost for a typical passenger vessel in cold water, domestic services is estimated to be approximately \$50,000, arising primarily from the requirement to fit survival craft for all persons on board. For the purposes of this estimate, the survival craft selected are assumed to be inflatable buoyant apparatus. An oceangoing passenger vessel would be required to spend an estimated \$47,000, primarily for immersion suits and thermal protective aids. An oceangoing cargo or tank vessel would be required to carry additional liferafts, accounting for most of the \$9,000 in costs estimated for these vessels. A little over \$10 M would be required to retrofit gravity davits and winches on certain cargo and tank vessels which are now equipped with mechanical davits. The average cost for each of the approximately 130 vessels affected is estimated to be \$80,000.

Under the proposed rules, cargo and tank vessels still in service on July 1, 2001 and equipped with open lifeboats, would be required to retrofit totally enclosed lifeboats. This would result in an additional one-time cost of \$51 M for the estimated 261 vessels that would be affected. The average cost (1988 dollars) for each vessel in ocean or coastwise service affected would be \$220,000, and for each vessel in Great Lakes service would be \$110,000. This cost may be significantly overstated since an

unknown number of the affected vessels will undoubtedly have to replace or extensively repair their existing open lifeboats sometime before the year 2001. If these lifeboats are replaced at that time with totally enclosed lifeboats, the actual cost of the retrofit requirement would be the difference between the cost of the new lifeboats with installation, and the cost to repair or replace the existing lifeboat.

A recurring annual cost of \$7.4 M will result from more extensive on-board training requirements, the additional equipment required on newly constructed vessels, as well as the added maintenance costs for the new equipment. The annual added training and maintenance costs would range from approximately \$3,500 for a typical large oceangoing vessel to \$757 for an offshore supply vessel operating in the Gulf of Mexico. The approximate added construction cost for typical vessels of selected types are as follows:

MODU (semisubmersible).....	\$306,925
MODU (jackup).....	\$226,925
Passenger vessel (ferries, other non-ocean, cold water areas).....	\$52,540
Passenger vessel (oceangoing).....	\$81,745
Cargo vessel (ocean, coastwise).....	\$28,145
Tank vessel (ocean, coastwise).....	\$50,045
Cargo vessel (Great Lakes).....	\$14,245
Offshore supply vessel (Gulf of Mexico).....	\$1,390

Total estimates for the project are \$73.8 M total one-time costs spread over the 15 years from 1986 to 2001 (average annual cost \$4.9 M), and \$7.4 M in recurring annual costs. The year 1986 is considered the base year since SOLAS 74/83 came into force then. U.S. vessels on international voyages had to start complying at that time, even though these implementing regulations were not in place.

The draft evaluation uses a discounting method to determine future costs and benefits. On the basis of this analysis, the evaluation estimates that the regulations would cost approximately \$915,666 per life saved. Depending upon the type of vessel, this may vary from as little as \$0.4 M per life saved, to as much as \$2.8 M per life saved. However, as explained in the regulatory evaluation, the costs and benefits are very difficult to identify accurately, so there is a significant margin for error in these numbers. The minimum accepted value of a human life is \$1 M and values considerably above this amount have frequently been used. Therefore, it appears that the rule may be cost effective depending upon the changes made in the final rule, refinements to the draft evaluation, and the assumed value of a human life. It should be noted that the draft

evaluation makes no attempt to quantify intangible benefits, such as the elimination of some of the present repetitive, overlapping and sometimes contradictory regulations, and the publication of fewer pages in the Code of Federal Regulations and Federal Register in the future.

Comments are invited on the draft evaluation. In particular, comments are invited on the assumptions made in the evaluation and the time-phasing proposed in the regulations. Changes in either could greatly affect the cost-benefit analysis. The proposals in this notice are intended to meet the objectives of lifesaving system improvement in the most cost-effective way, however, comments are specifically invited on ways to further reduce the cost of these regulations.

The agency certifies that this proposal will not have a significant economic impact on a substantial number of small entities. Generally, the only small entities affected would be certain operators of offshore supply vessels, operating primarily in the Gulf of Mexico. These regulations provide for a number of alternative arrangements that minimize the cost impact on these operators, including the possibility to use life floats instead of lifeboats or liferafts. An optional arrangement for recovering persons that fall overboard is also permitted in lieu of the requirement to carry a rescue boat.

State and local governments that operate passenger ferry services in cold waters may be affected by the proposed requirement for survival craft on passenger vessels. These vessels would have the highest 1991 retrofit costs of all the vessels affected by these proposed rules at an estimated \$50,300. Nevertheless, this is only about 0.1% of an estimated \$50,000,000 replacement cost of such a vessel. For this reason, these regulations are not considered to have a significant impact on governments, or any small entity that may happen to operate similar vessels.

Three primary benefits of the proposed regulations are identified in the draft evaluation. First, the proposed regulations would resolve numerous outstanding recommendations made by the National Transportation Safety Board and Coast Guard Marine Boards of Investigation, and would result in the saving of life in future marine casualties where vessels must be abandoned. Second, repetitive, overlapping, and sometimes contradictory regulations will be eliminated. Third, U.S. registered vessels would not be subject to penalty or delay in foreign ports because of non-compliance with SOLAS 74/83.

Four comments on the ANPRM were to the effect that the costs identified in that notice were too low or that some particular element of the cost of the regulations were not taken into account. The draft evaluation includes a cost estimate that is more complete than the rough estimate used in the ANPRM. It should also be more accurate since it uses cost information we believe is more accurate than that used to estimate the cost in the ANPRM.

One comment stated that the benefits of the proposed rules were overestimated, and the costs underestimated. Another comment was interested in how the cost estimate is prepared. The draft evaluation contains an analysis of the costs and benefits. The draft evaluation is part of the docket and is available for inspection and copying at the Marine Safety Council (see ADDRESSES section at the beginning of this notice).

One comment noted that the cost of the regulations would put operators of self-propelled vessels at a greater disadvantage as compared to uninspected tug and barge operations. The Coast Guard does not have statutory authority to require any lifesaving equipment aboard uninspected vessels beyond a life preserver or other lifesaving device for each individual on board (46 U.S.C. 4101(b)). The Coast Guard would recommend that uninspected vessels comply with the regulations proposed in this notice for the particular size and service of vessel.

Recordkeeping Requirements

This proposed rulemaking contains information collection and recordkeeping requirements. Some provisions are minor revisions of existing sections that have previously been submitted to the Office of Management and Budget for review under the Paperwork Reduction Act (Pub. L. 96-511, 44 U.S.C. 3501 et seq.). The section numbers of those provisions and the corresponding OMB approval numbers are as follows:

a. § 35.07-10.....	2115-0071
b. § 35.10-1(e).....	2115-0071
c. § 35.10-2(e).....	2115-0071
d. § 35.10-3(b).....	2115-0071
e. § 35.90-70(a).....	2115-0071
f. § 35.90-73(c).....	2115-0071
g. § 78.17-50(f).....	2115-0071
h. § 78.17-55(e).....	2115-0071
i. § 78.37-5(b).....	2115-0071
j. § 78.95-70(a).....	2115-0071
k. § 78.95-73(c).....	2115-0071
l. § 97.15-35(e).....	2115-0071
m. § 97.15-40(e).....	2115-0071
n. § 97.35-5(c).....	2115-0071
o. § 97.90-70(a).....	2115-0071

p. § 97.90-73(c)	2115-0071
q. § 109.311(a)	2115-0071
r. § 109.313(c)	2115-0071
s. § 109.425	2115-0007
t. § 109.433	2115-0071
u. § 167.55-5	2115-0071
v. § 167.65-2(e)	2115-0071
w. § 196.15-40(e)	2115-0071
x. § 196.35-5	2115-0071
y. § 199.80	2115-0542

Other information collection and recordkeeping requirements are either new or have not been approved by OMB. They have been submitted to the Office of Management and Budget for approval under the provisions of the Paperwork Reduction Act (Pub. L. 96-511, 44 U.S.C. 3501 et seq.). Persons desiring to comment on these information collection and recordkeeping requirements should submit their comments to: Office of Management and Budget, 726 Jackson Place NW., Washington, DC 20503, ATTN: Desk Officer, U.S. Coast Guard. Persons submitting comments to OMB are also requested to submit a copy of their comment to the Coast Guard as indicated under "ADDRESSES." The section numbers are as follows:

a. § 35.10-1(a)
b. § 35.11-5(d)
c. § 35.40-19
d. § 35.40-40
e. § 35.40-43
f. § 35.40-45
g. § 35.40-48
h. § 35.40-50
i. § 35.40-55
j. § 35.90-30
k. § 35.90-40(c)

l. § 78.14-5(d)
m. § 78.17-50(a)
n. § 78.47-60
o. § 78.47-62
p. § 78.47-63
q. § 78.47-64
r. § 78.47-65
s. § 78.47-72
t. § 78.95-30
u. § 78.95-40(c)
v. § 97.14-5(d)
w. § 97.15-35(a)
x. § 97.37-37
y. § 97.37-39
z. § 97.37-40
aa. § 97.37-42
bb. § 97.37-43
cc. § 97.37-55
dd. § 97.90-30
ee. § 97.90-40(c)
ff. § 108.645
gg. § 108.646
hh. § 108.647
ii. § 108.649
jj. § 108.650
kk. § 109.215(a)
ll. § 109.303
mm. § 109.305(c)
nn. § 109.323(e)
oo. § 160.040-6
pp. § 196.37-37
qq. § 196.37-39
rr. § 196.37-40
ss. § 196.37-42
tt. § 196.37-43
uu. § 196.37-49
vv. § 199.80
ww. § 199.90
xx. § 199.175(c)
yy. § 199.175(c)(19)
zz. § 199.175(c)(40)
aaa. § 199.175(c)(46)

Federalism

This action has been analyzed in accordance with the principles and criteria contained in Executive Order 12612, and it has been determined that this notice of proposed rulemaking does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Derivation Table

The regulations proposed in this notice are based in part on existing regulations in Title 46 of the Code of Federal Regulations that would be removed or revised, and also on Chapter III of the 1983 Amendments to the Safety of Life at Sea Convention, 1974. For the convenience of the user, the following derivation table shows the relationship of the regulations proposed in this notice with existing similar regulations and SOLAS 74/83. The right-hand column also lists certain resolutions of the International Maritime Organization that are related to SOLAS 74/83. These are IMO Res. A.414(XI), Code for the Construction and Equipment of Mobile Offshore Drilling Units; IMO Res. A.521(13), Recommendation on Testing of Life-Saving Appliances; and IMO Res. A.534(13), Code of Safety for Special Purpose Ships. The section number follows identification of the resolution. In the case of Resolution A.521, all references are in Part 2 of the resolution, with the part number listed first, followed by a "/", followed by the section number.

Proposed regulation	Existing regulation (CFR, title 46)	SOLAS 74/83 regulation (Ch. III, except as noted)
(effective date)		1.1
§ 199.5	None	None
§ 199.7	None	None
§ 199.10(a)	None	None
§ 199.10(b)	§ 33.15-1(a), 75.01-1, 75.10-1, 75.15-1, 75.20-1, 75.25-1, 75.27-1, 75.30-1, 75.33-1, 75.40-1, 75.41-1, 75.43-1, 75.45-1, 75.50-1, 75.90-1, 78.87-1, 94.10-1(a), 94.10-1(b), 94.15-1, 94.20-1, 94.25-1, 94.30-1, 94.33-1, 94.35-1, 94.40-1, 94.43-1, 94.45-1, 94.50-1, 94.90-1, 97.85-1, 192.01-1, 192.10-1, 192.15-1, 192.20-1, 192.25-1, 192.30-1, 192.33-1, 192.35-1, 192.40-1, 192.43-1, 192.45-1, 192.50-1, 192.60-1, 196.90-1.	1.5, 8.1, 9.1, 21.3.1, 21.4.1
§ 199.10(c)	§ 30.10-35	1.2
§ 199.10(d)	None	1.3
§ 199.10(e)	None	1.1
§ 199.10(f)	§ 75.05-5, 94.05-5, 108.103, 192.05-5	None
§ 199.15	§ 33.01-5, 33.05-1, 33.05-2, 33.10-10(j), 33.10-15(a)(3), 75.10-90, 75.15-90, 75.20-90, 75.25-90, 75.30-90, 75.33-90, 75.40-90, 75.43-90, 75.45-90, 75.50-90, 94.10-90, 94.15-90, 94.20-90, 94.25-90, 94.30-90, 94.33-90, 94.40-90, 94.43-90, 94.50-5(b), 94.50-90, 192.10-90, 192.15-90, 192.20-90, 192.25-90, 192.30-90, 192.33-90, 192.40-90, 192.43-90, 192.45-90, 192.50-5(b), 192.50-90.	1.4.1, 1.4.2
§ 199.15(a)	§ 33.10-15(b)	1.4.1, 1.4.2
§ 199.15(b)	§ 33.01-5	1.4.3
§ 199.15(c)	None	1.6, 6.1
§ 199.15(d)	None	1.6, 21.4.1
§ 199.15(e)	None	1.6, 26.3
§ 199.15(f)	None	None
§ 199.15(g)	None	None
§ 199.15(h)	None	None
§ 199.15(i)	None	None
§ 199.15(j)	None	None
§ 199.15(k)	None	None

Proposed regulation	Existing regulation (CFR, title 46)	SOLAS 74/83 regulation (Ch. III, except as noted)
§ 199.15(l)	§ 75.10-5(a)(2), 94.10-5(a)(2), 192.10-5(a)(2)	None
§ 199.15(m)	None	1.4.4, 1.4.5
§ 199.25	None	None
§ 199.30 "Child"	None	None
§ 199.30 "Embarkation station"	None	None
§ 199.30 "Fleet angle"	§ 33.10-10(k), 75.33-10(d), 94.33-10(d), 108.509(a), 192.33-10(d)	None
§ 199.30 "Float-free"	None	3.4
§ 199.30 "Free-fall"	None	3.5
§ 199.30 "Immersion suit"	§ 33.37-5(c) & (d), 94.41-5(c) & (d), 108.513(d), 192.41-5(c) & (d)	3.6
§ 199.30 "Inflatable"	None	3.7
§ 199.30 "Inflated"	None	3.8
§ 199.30 "Launching appliance"	None	3.9
§ 199.30 "Length"	§ 42.13-15(a)	3.10
§ 199.30 "Molded depth"	§ 42.13-15(e)	3.11
§ 199.30 "Muster station"	None	3
§ 199.30 "Novel"	None	3.12
§ 199.30 "Retrieval"	None	3.14
§ 199.30 "Seagoing condition"	None	3
§ 199.30 "Survival craft"	None	3.17
§ 199.30 "Toxic vapor or gas"	None	3
§ 199.40	§ 30.15-1(a), 70.15-1(a), 90.15-1(a), 108.105, 188.15-1(a)	4.3
§ 199.62	None	6.2.4
§ 199.64	§ 33.60, 75.60, 94.60, 108.523, 109.307(a), 192.65	6.2.3
§ 199.66	§ 33.15-25, 75.10-10(a)(4), 75.55-1, 94.55-1, 108.519, 109.321, 192.55-1	6.2.1, 41.7.8
§ 199.68(a)(1)	§ 33.45-5, 75.90-5(a), 94.90-5(a), 108.521(a), 192.60-5(a)	6.3
§ 199.68(a)(2)	§ 33.45-1, 75.90-10, 94.90-5(b)	None
§ 199.68(b)	§ 94.90-10, 192.60-10(a)	None
§ 199.68(c)	§ 94.90-15	None
§ 199.68(d)(1)	§ 33.45-1, 33.45-5, 75.90-5(c), 94.90-5(a), 108.521(b), 192.60-5(a)	6.3
§ 199.68(d)(2)	§ 33.01-35, 33.45-10	6.3
§ 199.70(a)	§ 33.40-1(a), 33.40-1(b), 33.40-5(b), 33.40-5(c), 33.40-15, 75.43-5(a), 75.43-5(b), 75.43-10(b), 75.43-15, 94.43-5(a), 94.43-5(b), 94.43-10(b), 94.43-15, 108.515(b), 108.515(c), 108.515(e), 108.515(f), 192.43-5(a), 192.43-5(b), 192.43-10(b), 192.43-15	7.1.1.2, 7.1.2, 7.1.3, 31.4
§ 199.70(b)	None	7.1.1.1
§ 199.70(c)	§ 33.40-1(c)(1), 75.43-5(c)(1), 75.43-10(c), 94.43-5(c)(1), 94.43-10(c), 108.515(d), 192.43-5(c)(1), 192.43-10(c)	7.1.3
§ 199.70(d)	§ 33.40-5(d), 75.43-10(d), 94.43-10(d), 192.43-10(d)	30.2.6
§ 199.72(a)	§ 33.35-1, 33.35-15, 75.40-5(a), 75.40-10(a), 75.40-10(c), 94.40-5(a), 94.40-10(a), 94.40-10(c), 108.514(a), 108.514(c), 192.40-5, 192.40-10(a), 192.40-10(b)	7.2
§ 199.72(b)	§ 33.35-1(b), 94.40-10(c), 192.40-10(b)	None
§ 199.72(c)	§ 94.40-10(b)	None
§ 199.73	None	7.3
§ 199.75(a)	§ 33.38-1, 75.40-30, 94.42-1, 108.513(e), 108.514(e), 192.42-1	21.3.2, 27.2.2
§ 199.75(b)	None	21.3.1, 27.2.1
§ 199.76	§ 33.38-5, 75.40-5(b), 94.42-5, 108.513(f), 108.514(d), 192.42-5	32.1.6
§ 199.78	§ 33.35-5, 33.37-15, 75.40-15(a), 75.40-15(c), 75.40-20, 75.41-10, 78.87-5, 94.40-15, 94.41-10, 97.85-5, 108.513(g), 108.514(b), 109.313, 109.314, 192.41-10, 196.90-5	7.2.2
§ 199.80	§ 35.10-1(a), 78.13-1(a), 97.13-1(a), 196.13-1(a)	8.1, 8.2
§ 199.80(a)	§ 35.10-1(a), 35.10-1(b), 78.13-1, 78.13-5, 78.13-15, 97.13-5, 97.13-10, 109.501, 109.503(a), 109.505, 196.13-5, 196.13-10	8.3, 53
§ 199.80(b)	§ 75.40-25, 78.47-47	8.4
§ 199.80(c)	§ 35.10-9, 78.49-1, 97.39-1, 108.655, 196.39-1	8.2
§ 199.80(d)	§ 160.071-15(b)	8.2
§ 199.90	§ 35.10-9(a), 78.49-1(a), 97.39-1(a), 108.655, 196.39-1(a)	9.2
§ 199.110(a)	§ 75.15-10(a)(3)	11.2
§ 199.110(b)	§ 72.10-40, 92.10-40, 108.165, 190.10-40	11.3
§ 199.110(c)	None	11.6
§ 199.110(d)	None	None
§ 199.110(e)	§ 33.20-1(c)(1), 33.20-3, 75.50-5, 75.50-7, 94.50-5, 94.50-7, 108.525(a), 108.525(b), 109.341(b), 192.50-5, 192.50-7	11.7, 48.7.1
§ 199.110(f)	§ 33.20-1(f), 75.15-10(b)(7), 94.15-10(b)(6), 108.507(a)(4), 192.15-10(b)(6)	11.8, 48.6
§ 199.110(g)	§ 108.508(a)(5)	11.8, 38.4.1.2
§ 199.120	§ 33.20-1(d), 75.15-10(b)(4), 75.15-10(c)(1), 94.15-10(b)(4), 192.15-10(1)(4)	12
§ 199.130(a)	None	11.1
§ 199.130(a)(1)	§ 33.20-1(e), 75.15-10(b)(2), 75.15-10(b)(6), 75.15-10(c)(1), 75.25-5(d), 75.25-5(f), 94.15-10(a)(2), 94.15-10(a)(3), 94.15-10(b)(2), 94.25-5(d), 94.25-5(f), 108.511(a), 108.511(c), 192.15-10(a)(2), 192.15-10(a)(3), 192.15-10(b)(2), 192.25-5(d), 192.25-5(f)	13.1
§ 199.130(a)(2)	§ 33.20-15(c), 75.15-10(b)(5), 75.25-5(c), 75.27-5(c), 94.15-10(b)(5), 94.25-5(c), 108.508(d), 192.15-10(b)(5), 192.25-5(c)	48.6
§ 199.130(a)(3)	§ 33.10-5(d), 75.30-5(b), 94.30-5(b), 160.015-2(g), 192.30-5(b)	48.1.9
§ 199.130(b)	§ 33.05-3(c), 33.05-20(c)	11.1
§ 199.130(c)	§ 94.10-40(a)	None
§ 199.130(d)	None	13.1.2
§ 199.133(a)	§ 33.05-3(c)(2), 75.15-10(b)(4), 94.15-10(b)(4), 108.511(d), 192.15-10(b)(4)	13.2
§ 199.133(b)	§ 33.20-1(a), 75.15-10(b)(1), 94.15-10(b)(1), 192.15-10(b)(1)	13.3
§ 199.133(c)	None	41.6.11
§ 199.135(a)	None	13.4

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§ 199.135(b)	None	38.1.2
§ 199.135(c)	None	None
§ 199.135(d)	None	13.5
§ 199.135(e)	None	39.9.2
§ 199.135(f)	§ 33.20-20, 75.15-10(e), 94.15-10(e), 108.510, 192.15-10(e)	30.2, 38.6.3 (IMO Res. A.414(XI)-10.5)
§ 199.137	§ 33.20-25, 94.15-10(d), 192.15-10(d)	None
§ 199.140(a)	§ 75.10-10(a)(3)	14
§ 199.140(b)	None	41.6.11
§ 199.140(c)	None	47.3.11
§ 199.150(a)	§ 33.10-5(b), 33.20-1(a), 75.30-10(a), 94.30-10(a), 108.506(c), 192.30-10(a)	15.1
§ 199.150(b)	§ 33.10-10(d), 75.15-10(a)(4), 75.27-5(b), 75.33-5(b), 94.15-10(a)(4), 94.33-5(b), 192.15-10(a)(4), 192.33-5(b)	48.1.1
§ 199.150(c)	§ 33.10-1(b), 33.10-1(c), 75.25-5(c), 75.25-10(a), 75.25-15(a), 94.25-5(c), 94.25-10(a), 94.25-15(a), 108.508(d), 192.25-5(c), 192.25-10(a)	48.1.3
§ 199.150(d)	§ 75.27-5(b)	48.1.8
§ 199.150(e)	§ 33.10-20(b), 75.10-5(a)(6)(iii), 94.10-5(a)(4)(iii), 192.10-5(a)(4)(iii)	15.4
§ 199.150(f)	§ 75.15-10(a)(2), 94.15-10(a)(2), 192.15-10(a)(2)	15.5
§ 199.150(g)	§ 75.15-10(a)(3), 94.15-10(a)(3), 192.15-10(a)(3)	38.4.2, 38.4.3, 41.3.1, 41.3.2
§ 199.150(h)	§ 33.10-5(e), 75.30-15(a), 94.30-15(a), 108.507(b), 108.507(d), 108.508(b), 108.508(c), 192.30-15(a)	15.3, 48.1.4
§ 199.150(i)	§ 33.20-1(c)(4), 75.15-10(b)(10), 75.15-10(c)(2), 94.15-10(b)(8), 108.511(d), 192.15-10(b)(8)	15.8
§ 199.150(j)	None	15.9
§ 199.153(a)	§ 33.10-1(a), 33.10-1(d), 33.10-5(c), 33.10-10(g), 33.10-10(i), 75.25-5(a), 75.27-5(a), 75.27-5(d), 75.30-5(a), 75.30-10(b), 75.30-15(b), 94.25-5(a), 94.30-5(a), 94.30-10(b), 94.30-15(b), 108.507(a)(2), 108.507(a)(3), 108.508(a)(1), 108.508(a)(2), 108.508(a)(3), 108.508(a)(4), 108.508(a)(6), 192.25-5(a), 192.30-5(a), 192.30-10(b), 192.30-15(b)	30.2, 48.2
§ 199.153(b)	§ 33.10-5(a), 33.10-10(a), 33.10-10(b), 33.10-10(c), 75.30-5(c), 75.33-5(a), 75.33-10(a), 75.33-10(b), 94.30-5(c), 94.33-5(a), 94.33-10(a), 108.507(a)(5), 108.507(a)(6), 192.30-5(c), 192.33-5(a), 192.33-10(a)	48.1.8, 48.2.1
§ 199.153(c)	§ 33.10-10(b), 75.33-10(c), 94.33-10(c), 192.33-10(c)	None
§ 199.153(d)	§ 33.10-10(d), 75.33-5(b), 94.33-5(b), 108.506(a), 192.33-5(b)	15.6
§ 199.153(e)	§ 33.10-10(g), 75.33-5(d), 94.33-5(d), 108.507(a)(6), 160.015-2(h), 192.33-5(d)	48.2.2
§ 199.153(f)	§ 33.10-10(k), 75.33-10(d), 94.33-10(d), 108.509(b), 192.33-10(d)	48.2.2
§ 199.153(g)	§ 33.10-10(k), 75.33-10(d), 94.33-10(d), 108.509(b), 192.33-10(d)	48.2.2
§ 199.153(h)	§ 75.33-5(c), 94.33-5(c), 108.507(c), 160.015-2(i), 192.33-5(c)	None
§ 199.153(i)	None	48.2.6
§ 199.153(j)	§ 33.10-5(f)(1)(iii), 75.35-5(b)(4)(iii), 94.35-5(b)(4)(iii), 192.35-5(b)(4)(iii)	None
§ 199.153(k)	§ 33.10-5(f)(1)(iii), 75.35-5(1)(4)(iii), 94.35-5(b)(4)(iii), 192.35-5(b)(4)(iii)	48.2.7
§ 199.153(l)	§ 160.015-3(k)(2)	48.2.5
§ 199.155	None	48.5.1
§ 199.157(a)	None	28.2
§ 199.157(b)	§ 160.015-2(f)	15.2, 48.1.10
§ 199.157(c)	None	15.3
§ 199.157(d)	§ 33.20-1(c)(2), 75.25-10(b), 75.25-15(b), 94.25-10(b), 94.25-15(b), 192.25-10(b)	15.10
§ 199.160	§ 33.20-1(g), 75.25-5(g), 94.10-55(b)(2)(iii), 94.25-5(g), 192.10-55(b)(2)(iii), 192.25-5(g)	16.1
§ 199.160(a)	None	16.2
§ 199.160(b)	None	None
§ 199.160(c)	§ 75.30-10(d)	16.3
§ 199.160(d)	§ 75.30-10(d)	16.4, 48.2.3, 48.2.8
§ 199.170(a)	§ 33.55-1(a), 33.55-1(b), 75.45-5(a), 75.45-10, 94.45-5(a), 94.45-10, 108.517(a), 192.45-5(a), 192.45-10	17
§ 199.170(b)	§ 33.55-1(a), 33.55-1(c), 75.45-5(b), 75.45-10, 94.45-5(b), 94.45-10, 108.517(b), 192.45-5(b), 192.45-10	None
§ 199.170(c)	§ 33.55-10(a), 33.55-10(b), 75.45-15, 94.45-15, 192.45-15	49.1
§ 199.170(d)	§ 33.55-10(a), 33.55-10(b), 75.45-15(a)(6), 75.45-15(b)(6), 94.45-15(a)(6), 94.45-15(b)(6), 192.45-15(a)(6), 192.45-15(b)(6)	None
§ 199.170(e)	§ 33.55-5, 109.320(a)	None
§ 199.175(a)	§ 33.15-1(b), 33.15-1(d), 33.15-1(e), 75.20-5(a), 75.20-5(c), 75.20-5(d), 94.20-5(a), 94.20-5(c), 94.20-5(d), 108.503(f), 192.20-5(a), 192.20-5(c), 192.20-5(d)	41.8
§ 199.175(b)	§ 33.15-16	38.5, 39.10
§ 199.175(c)	§ 33.15-5, 33.15-15, 75.20-10, 75.20-20, 94.20-10, 94.20-20, 108.503(d), 108.503(e), 108.503(f), 192.20-10, 192.20-20	38.5.2, 38.5.3, 41.8.32, 47.2.1
§ 199.175(c)(1)	(Reserved)	None
§ 199.175(c)(2)	§ 33.15-10(a), 75.20-15(a), 94.20-15(a), 192.20-15(a)	38.5.1.3, 41.8.3, 47.2.2.2
§ 199.175(c)(3)	§ 33.15-10(b), 75.20-15(b), 94.20-15(b), 192.20-15(b)	41.7.12, 41.8.25, 42.2
§ 199.175(c)(4)	§ 33.15-10(c), 33.15-20(a), 75.20-15(c), 75.20-25(a), 94.20-15(c), 94.20-25(a), 192.20-15(c), 192.20-25(a)	41.8.2, 47.2.3.1, 47.2.4.5
§ 199.175(c)(5)	§ 33.15-10(d), 75.20-15(d), 94.20-15(d), 192.20-15(d)	41.8.3, 47.2.3.2
§ 199.175(c)(6)	§ 160.051-8(c)(13)	38.5.1.7, 41.8.23
§ 199.175(c)(7)	§ 33.15-10(e), 75.20-15(e), 94.20-15(e), 192.20-15(e)	41.8.5, 47.2.2.3
§ 199.175(c)(8)	§ 33.15-10(mm), 75.20-15(mm), 94.20-15(mm), 192.20-15(mm)	42.3
§ 199.175(c)(9)	None	41.8.10
§ 199.175(c)(10)	§ 33.15-10(f), 75.20-15(f), 94.20-15(f), 192.20-15(f)	None
§ 199.175(c)(11)	§ 33.15-10(g), 75.20-15(g), 75.20-25(b), 94.20-15(g), 94.20-25(b), 192.20-15(g), 192.20-25(b)	38.5.1.20, 41.8.11
§ 199.175(c)(12)	None	6.2.3
§ 199.175(c)(13)	§ 33.15-10(h), 75.20-15(h), 94.20-15(h), 192.20-15(h)	41.8.28

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§ 199.175(c)(14)	§ 33.15-10(i), 75.20-15(i), 94.20-15(i), 192.20-15(i)	38.5.1.8, 41.8.20, 47.2.2.9
§ 199.175(c)(15)	§ 33.15-10(j), 75.20-15(j), 94.20-15(j), 192.20-15(j)	38.5.1.17, 41.8.26
§ 199.175(c)(16)	§ 33.15-10(k), 75.20-15(k), 94.20-15(k), 192.20-15(k)	38.5.1.13, 41.8.16, 47.2.2.7
§ 199.175(c)(17)	§ 33.15-10(l), 75.20-15(l), 94.20-15(l), 192.20-15(l)	41.8.8
§ 199.175(c)(18)	§ 160.051-8(b)(13)	38.5.1.1, 41.8.24, 47.2.2.10
§ 199.175(c)(19)	§ 33.15-10(m), 75.20-15(m), 75.20-25(c), 94.20-15(m), 94.20-25(c), 192.20-15(m), 192.20-25(c)	38.5.1.23
§ 199.175(c)(20)	None	41.8.22
§ 199.175(c)(21)	§ 33.15-10(n), 75.20-15(n), 94.20-15(n), 192.20-15(n)	38.5.1.2, 47.2.3.3, 47.2.4.1
§ 199.175(c)(22)	§ 33.15-10(o), 75.20-15(o), 94.20-15(o), 192.20-15(o)	41.3.3
§ 199.175(c)(23)	§ 33.15-10(p), 75.20-15(p), 94.20-15(p), 192.20-15(p)	41.7.11
§ 199.175(c)(24)	§ 33.15-10(q), 75.20-15(q), 94.20-15(q), 192.20-15(q)	None
§ 199.175(c)(25)	§ 33.15-10(r), 75.20-15(r), 94.20-15(r), 192.20-15(r)	None
§ 199.175(c)(26)	§ 33.15-10(s), 75.20-15(s), 94.20-15(s), 192.20-15(s)	None
§ 199.175(c)(27)	§ 33.15-10(t), 75.20-15(t), 94.20-15(t), 94.20-25(e), 192.20-15(t), 192.20-25(e)	38.5.1.15, 41.8.17
§ 199.175(c)(28)	§ 33.15-10(u), 75.20-15(u), 75.20-25(f), 94.20-15(u), 94.20-25(f), 192.20-15(u), 192.20-25(f)	41.8.1, 47.2.2.1
§ 199.175(c)(29)	§ 33.15-10(v), 75.20-15(v), 75.20-25(g), 94.20-15(v), 94.20-25(g), 192.20-15(v), 192.20-25(g)	None
§ 199.175(c)(30)	§ 33.15-10(w), 75.20-15(w), 94.20-15(w), 192.20-15(w)	38.5.1.6
§ 199.175(c)(31)(i)	§ 160.051-8(b)(7)	41.8.7
§ 199.175(c)(31)(ii)	§ 33.15-10(z), 75.20-15(z), 94.20-15(z), 192.20-15(z)	47.2.2.5
§ 199.175(c)(31)(iii)	None	38.3.3, 40.6.1
§ 199.175(c)(32)	§ 33.15-20(f), 75.20-25(i), 94.20-25(i), 192.20-25(i)	38.5.1.18, 41.8.12
§ 199.175(c)(33)	§ 33.15-10(bb), 75.20-15(bb), 75.20-25(j), 94.20-15(bb), 94.20-25(j), 192.20-15(bb), 192.20-25(j)	47.2.4.3
§ 199.175(c)(34)	§ 160.051-8(b)(9)	38.5.1.14, 41.8.30, 47.2.2.12
§ 199.175(c)(35)	None	None
§ 199.175(c)(36)	§ 160.051-8(c)(7)	47.2.4.4
§ 199.175(c)(37)	§ 33.15-10(dd), 75.20-15(ee), 94.20-15(dd), 192.20-15(dd)	None
§ 199.175(c)(38)	§ 33.15-10(ee), 33.15-20(h), 75.20-15(ff), 75.20-25(i), 94.20-15(ee), 94.20-25(i), 192.20-15(ee), 192.20-25(i)	38.5.1.5, 41.8.6, 47.2.2.4
§ 199.175(c)(39)	§ 75.20-15(gg)	41.8.29, 47.2.2.11
§ 199.175(c)(40)	§ 160.051-8(c)(15)	38.5.1.21, 41.8.21
§ 199.175(c)(41)	§ 33.15-10(ff), 75.20-15(hh), 75.20-25(m), 94.20-15(ff), 94.20-25(m), 192.20-15(ff), 192.20-25(m)	38.5.1.12, 41.8.15
§ 199.175(c)(42)	§ 33.15-10(gg), 33.15-20(i), 75.20-15(ii), 75.20-25(m), 94.20-15(gg), 94.20-25(m), 192.20-15(gg), 192.20-25(m)	38.5.1.11, 41.8.14
§ 199.175(c)(43)	§ 33.15-10(hh), 33.15-20(j), 75.20-15(jj), 94.20-15(hh), 192.20-15(hh)	38.5.1.10, 41.8.13
§ 199.175(c)(44)	§ 33.20-1(c)(5), 75.15-10(b)(8), 94.15-10(b)(7), 192.15-10(b)(7)	41.7.9
§ 199.175(c)(45)	§ 160.051-8(c)(9)	38.5.1.4, 47.2.4.2
§ 199.175(c)(46)	§ 160.051-8(b)(3)	38.5.1.21, 41.8.4
§ 199.175(c)(47)	§ 33.15-10(nn), 75.20-15(pp), 94.20-15(nn), 192.20-15(nn)	38.5.1.16, 41.8.18
§ 199.175(c)(48)	None	38.5.1.24, 41.8.31, 47.2.2.13
§ 199.175(c)(49)	§ 33.15-10(ii), 75.20-15(kk), 94.20-15(ii), 192.20-15(ii)	41.8.27
§ 199.175(c)(50)	None	47.2.2.6
§ 199.175(c)(51)	§ 33.15-10(jj), 33.15-10(oo), 75.20-15(ll), 75.20-15(qq), 75.20-25(n), 94.20-15(jj), 94.20-15(oo), 94.20-25(n), 192.20-15(oo), 192.20-25(n)	38.5.1.19, 41.8.9
§ 199.175(c)(52)	§ 33.15-10(kk), 75.20-15(mm), 94.20-15(kk), 192.20-15(kk)	38.5.1.9, 41.8.19, 47.2.2.8
§ 199.175(d)	§ 33.15-15, 94.20-30, 192.20-30	None
§ 199.175(d)(1)	§ 33.15-20(a), 94.20-35(a), 192.20-35(a)	None
§ 199.175(d)(2)	§ 33.15-20(b), 94.20-35(b), 192.20-35(b)	None
§ 199.175(d)(3)	§ 33.15-20(c), 94.20-35(c), 192.20-35(c)	None
§ 199.175(d)(4)	§ 33.15-20(d), 94.20-35(d), 192.20-35(d)	None
§ 199.175(d)(5)	§ 33.15-20(e), 94.20-35(e), 192.20-35(e)	None
§ 199.200	None	None
§ 199.201(a)	§ 75.05-1, 192.05-1	None
§ 199.201(a)(1)	§ 75.10-5(a)(1), 192.10-5(a)(1)	None
§ 199.201(a)(2)	None	None
§ 199.201(a)(3)	None	30.2, 41, 42
§ 199.201(a)(4)	None	30.2, 41, 44
§ 199.201(a)(5)	§ 75.10-5(b)(3), 75.10-5(b)(4), 192.10-5(b)(2), 192.10-5(b)(3)	30.2, 38, 38.2.1, 39
§ 199.201(a)(6)	§ 75.10-5(b)(1), 192.10-5(b)(1)	30.2, 38, 38.2.1, 40
§ 199.201(b)(1)	None	None
§ 199.201(b)(2)(i)	§ 75.10-10(a)(1), 75.10-10(a)(5), 192.10-10(f)	20.1.1.1
§ 199.201(b)(2)(ii)	§ 75.15-10(c)(1), 75.27-5(g)	20.1.1.1
§ 199.201(c)	§ 75.10-10(b)(1), 75.10-10(c)(3), 75.15-10(c)(4), 192.10-10(f)	13.6, 20.1.1.2
§ 199.201(c)(1)	§ 75.10-10(a)(6), 75.10-15(a)	20.1.3
§ 199.201(c)(2)(i)	§ 75.10-10(a)(6), 75.15-10(c)(1), 75.27-5(g)	20.1.2.1
§ 199.201(c)(2)(ii)	§ 75.10-10(a)(6), 75.10-10(b)(2), 75.15-10(c)(3), 75.15-10(c)(4)	20.1.2.1
§ 199.201(d)	§ 75.10-20(a)	13.6, 20.1.2.2
§ 199.201(d)(1)	§ 75.10-20(a)	None
§ 199.201(d)(2)	§ 75.10-20(a), 75.15-10(c)(1), 75.15-10(c)(4), 75.27-5(g)	None
§ 199.201(e)(1)	§ 75.10-20(a), 75.10-20(c)	None
§ 199.201(e)(2)	§ 75.10-20(a), 75.10-20(c), 75.15-10(c)(1), 75.15-10(c)(4), 75.27-5(g)	None
§ 199.201(f)	§ 75.10-10(a)(8), 75.10-10(b)(4), 75.10-15(b), 75.10-15(c), 75.10-20(a)(2), 75.10-20(a)(3), 75.10-20(a)(4), 75.10-25, 75.15-10(c)(3)	20.1.5
§ 199.201(g)	§ 75.10-20(a)(3), 75.10-20(b)	None
§ 199.201(h)	§ 75.10-20(a)(2), 75.10-20(a)(3), 75.10-20(b)	None

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199.201(i).....	§ 75.10-20(a)(2), 75.10-20(a)(3).....	None.
199.202(a).....	§ 75.10-5(e)(1), 75.10-10(a)(3), 75.10-25(b)(2), 75.10-25(b)(3), 192.10-5(e).....	20.2.1.
199.202(b).....	§ 75.10-5(e)(1), 75.10-10(a)(3), 75.10-25(b)(1)(iii), 192.10-5(e).....	20.2.2.
199.202(c).....	None.....	20.2.3.
199.202(d).....	§ 75.10-5(e)(2), 192.10-5(e).....	None.
199.203.....	§ 75.27-5(f).....	20.3.
199.211.....	§ 75.43-10(a).....	21.1.
199.212.....	§ 75.40-10(b), 75.40-15(b).....	21.2.
199.213.....	§ 75.40-30(a).....	21.3.2.
199.214.....	§ 75.41-5.....	21.4.2.
199.217(a).....	None.....	53.7.
199.217(b).....	§ 78.13-15(a).....	None.
199.220.....	None.....	22.
199.230(a).....	§ 75.15-10(b)(4), 192.15-10(b)(4).....	13.2.
199.230(b).....	§ 75.15-10(c)(8), 192.15-10(c)(3).....	23, 38.6.1, 48.3.
199.240.....	None.....	24.
199.245(a).....	§ 75.15-10(a)(1), 192.15-10(a)(1).....	38.4.2.
199.245(b).....	§ 75.15-10(b)(3), 75.27-5(f), 192.15-10(b)(3).....	20.1.4.
199.250.....	§ 75.20-15(cc).....	6.2.2.
199.260.....	None.....	None.
199.261(a).....	§ 33.01-5, 94.05-1, 192.05-1.....	None.
199.261(a)(1).....	§ 94.10-5(a), 192.10-5(a).....	None.
199.261(a)(2).....	§ 33.05-3(e), 33.10-15(a), 33.10-20(a), 94.10-5(a), 192.10-5(a).....	30.2, 41, 44.
199.261(a)(3).....	§ 33.01-30(f), 94.10-5(b)(2), 192.10-5(b)(2).....	30.2, 38, 38.2.1, 39.
199.261(a)(4).....	§ 33.01-30(d), 94.10-5(b)(1), 192.10-5(b)(1).....	38.2.1.
199.261(a)(5).....	§ 33.01-30(e), 94.10-5(c), 192.10-5(c).....	None.
199.261(a)(6).....	None.....	None.
199.261(b)(1).....	§ 33.05-3(a), 33.05-5(a), 33.05-15(a), 94.10-10(a), 94.10-10(d), 94.10-15(a), 192.10-10(a), 192.10-15(a).....	26.1.1.1.
199.261(b)(2).....	§ 33.05-3(f), 33.20-15(b), 94.10-10(e), 192.10-10(d).....	13.6, 26.1.1.2.
199.261(c).....	None.....	26.1.2.
199.261(d).....	§ 33.05-3(g), 33.05-5(c), 33.05-15(c), 33.07-1, 33.07-10(b), 94.10-10(b), 94.10-10(f), 94.10-15(b), 94.10-20(d), 94.10-55, 192.10-10(e), 192.10-15(b), 192.10-55.....	13.6, 26.1.3.
199.261(e)(1).....	§ 33.05-20(a), 33.05-25(a), 94.10-40(a), 94.10-45(a), 94.10-45(b), 192.10-40(a).....	None.
199.261(e)(2).....	§ 33.05-20(c), 94.10-40(a), 94.10-45(a), 94.10-45(b), 192.10-40(a).....	None.
199.261(f).....	§ 33.05-20(d), 33.05-25(d), 33.07-1, 33.07-10(b), 94.10-40(b), 94.10-45(d), 94.10-55, 192.10-40(b), 192.10-55.....	None.
199.261(g).....	§ 33.05-25(a), 94.10-40(a), 192.10-40(a).....	None.
199.261(h).....	§ 33.05-3(f), 94.10-10(e), 94.10-15(c), 192.10-10(d).....	26.1.4.
199.261(i).....	§ 75.10-10(a)(7), 94.10-20(b)(5).....	None.
199.261(j).....	§ 94.10-40(a).....	None.
199.262(a).....	§ 33.01-30(a), 33.07-10(c), 94.10-5(e)(1), 94.10-55(b)(1)(iii), 94.10-55(b)(2)(i), 94.10-55(b)(3)(i), 192.10-5(e)(1), 192.10-55(b)(1)(iii), 192.10-55(b)(2)(i), 192.10-55(b)(3)(i).....	26.2.
199.262(b).....	§ 33.01-30(a), § 33.07-10(c), 94.10-5(e)(1), 94.10-20(b)(1), 94.10-20(b)(2), 94.10-20(b)(3), 94.10-20(b)(4), 94.10-45(c), 94.10-55(b)(1)(iii), 94.10-55(b)(2)(i), 94.10-55(b)(3)(i), 192.10-5(e)(1), 192.10-55(b)(1)(iii), 192.10-55(b)(2)(i), 192.10-55(b)(3)(i).....	None.
199.262(c).....	§ 33.01-30(a), 33.07-10(c), 94.10-5(e)(1), 94.10-45(c), 94.10-55(b)(1)(iii), 94.10-55(b)(2)(i), 94.10-55(b)(3)(i), 192.10-5(e)(1), 192.10-55(b)(1)(iii), 192.10-55(b)(2)(i), 192.10-55(b)(3)(i).....	None.
199.262(d).....	§ 33.01-30(a), § 33.07-10(c), 94.10-5(e)(2), 94.10-45(c), 94.10-55(b)(1)(iii), 94.10-55(b)(2)(i), 94.10-55(b)(3)(i), 192.10-5(e)(2), 192.10-55(b)(1)(iii), 192.10-55(b)(2)(i), 192.10-55(b)(3)(i).....	None.
199.262(e).....	§ 94.10-55(b)(1)(iv).....	None.
199.262(f).....	None.....	None.
199.271(a).....	§ 33.40-5(a), 94.43-10(a), 192.43-10(a).....	27.1.1.
199.271(b).....	§ 33.40-10.....	None.
199.271(c).....	§ 94.43-10(a), 192.43-10(a).....	None.
199.272.....	§ 33.35-5, 94.40-15(a), 192.40-15(a).....	None.
199.273(a).....	§ 33.37-1, 94.41-1, 192.41-1.....	27.3.2.3, 27.3.3.3.
199.273(b).....	§ 33.37-5(a), 94.41-5(a), 97.85-10, 192.41-5(a), 196.90-10.....	27.3.2, 27.3.3.
199.273(c).....	§ 33.37-5(b), 94.41-5(b), 192.41-5(b).....	None.
199.273(d).....	None.....	27.3.4.
199.280(a).....	None.....	None.
199.280(b).....	None.....	28.1.
199.280(c).....	None.....	28.1.
199.280(d).....	§ 33.20-15(a), 94.15-10(b)(3), 192.15-10(b)(3).....	38.4.3, 41.3.2, 48.1.11.
199.280(e).....	§ 33.20-15(a), 94.15-10(a)(1), 192.15-10(a)(1).....	26.1.5.
199.290(a).....	§ 33.05-3(c)(2), 94.15-10(b)(4), 192.15-10(b)(4).....	13.2.
199.290(b).....	§ 33.20-15(d), 94.15-10(c)(3), 94.15-10(c)(4), 192.15-10(c)(3).....	29, 38.6.1, 48.3.
199.300.....	None.....	None.
199.310(a).....	§ 33.01-5, 33.01-30(b).....	26.1.6.
199.310(b).....	None.....	26.1.7.
199.310(c).....	§ 33.07-1, 33.07-10(a).....	26.1.3.
199.310(d).....	None.....	13.1.5.

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§ 199.320	§ 154.1445	48.1.2.
§ 199.400	None	(IMO Res. A.534(13)).
§ 199.405	None	(IMO Res. A.534(13)).
§ 199.410	None	None.
§ 199.500	None	None.
§ 199.505	§ 167.35	None.
§ 199.600	None	None.
§ 199.605(a)	§ 108.50(b), 108.503(c), 108.505(b)	None.
§ 199.605(b)	§ 108.503(a), 108.505(a), 108.505(c), 108.511(b)	(IMO Res. A.414(XI)-10.1).
§ 199.605(c)	§ 108.503(a), 108.505(a)	(IMO Res. A.414(XI)-10.1).
§ 199.610	None	None.
§ 199.630(a)	§ 108.515(a)	(IMO Res. A.414(XI)-10.2).
§ 199.630(b)	§ 108.515(d)(2)	(IMO Res. A.414(XI)-10.4).
§ 199.640	§ 108.513(a), 108.513(b), 108.513(c)	(IMO Res. A.414(XI)-10.4).
§ 199.645	None	None.
§ 199.650(a)	None	(IMO Res. A.414(XI)-10.6).
§ 199.650(b)	None	None.
§ 199.650(c)	§ 108.511(e)	(IMO Res. A.414(XI)-10.5.2).
§ 199.650(d)	108.506(a), 108.506(b), 108.511(d)	(IMO Res. A.414(XI)-10.5.2).
§ 199.650(e)	None	None.
§ 199.650(f)	None	None.
§ 199.650(g)	§ 108.525(c), 108.525(d), 108.525(e)	None.
§ 199.650(h)	§ 108.527	None.
§ 30.05-1	None	None.
§ 30.35-1	None	None.
§ 31.01-1(a)	§ 31.01-1(a)	None.
§ 31.01-5(c)	§ 33.01-1	Chap. I, Reg. 8.
§ 31.01-5(c)(1)	§ 33.01-27, 33.10-5(f)	Chap. I, Reg. 8.
§ 31.01-5(c)(2)	None	(IMO Res. A.521(13)-2/5.3.1, 6.1.2, 6.1.3, 6.1.4, 6.2.1, 6.2.2, 6.2.4).
§ 31.01-5(c)(3)	None	None.
§ 31.01-5(c)(4)	None	(IMO Res. A.521(13)-2/5.3.2).
§ 31.01-5(c)(5)	None	(IMO Res. A.521(13)-2/6.2.3).
§ 31.01-5(c)(6)	§ 31.01-5(a)	None.
§ 31.01-5(c)(7)	None	None.
§ 31.05-1(a)	§ 31.05-1(a)	(IMO Res. A.521(13)-2/3.1).
§ 31.10-15(d)	§ 33.01-1	None.
§ 31.10-15(d)(1)	§ 33.25-20(c)	Chap. I, Reg. 8.
§ 31.10-15(d)(2)	§ 33.01-27	None.
§ 31.10-15(d)(3)	§ 33.01-27	None.
§ 31.10-15(d)(4)	§ 31.10-15(b)	None.
§ 31.10-15(d)(5)	§ 31.10-15(b)	None.
§ 31.10-15(d)(6)	§ 31.10-15(b)	None.
§ 31.10-15(d)(7)	§ 31.10-15(b)	None.
§ 31.10-15(d)(8)	§ 31.10-15(b)	None.
§ 31.10-15(d)(9)	§ 31.10-15(b)	None.
§ 31.10-15(d)(10)	§ 31.10-15(b)	None.
§ 31.10-15(d)(11)	§ 31.10-15(b)	None.
§ 31.10-15(d)(12)	§ 33.35-10, 33.37-10	None.
§ 31.10-15(d)(13)	§ 31.10-15(b)	None.
§ 31.10-15(d)(14)	§ 31.10-15(b)	None.
§ 31.10-15(d)(15)	§ 33.40-1(c)(2), 33.45-1, 33.45-5, 33.55-1(d)	None.
§ 31.10-15(d)(16)	§ 35.10-5(h)	30.3
§ 35.07-10(b)	§ 35.07-10(b)	None.
§ 35.10-1(a)	None	18.5.
§ 35.10-1(b)	§ 35.10-5(d), 35.10-5(e)	18.2, 51.
§ 35.10-1(c)	§ 35.10-6	18.3.
§ 35.10-1(d)	None	None.
§ 35.10-1(e)	§ 35.10-5(f)	18.4.
§ 35.10-2	§ 35.10-5(d), 35.10-5(e)	18.5.
§ 35.10-3	§ 35.10-1(c)	18.
§ 35.10-4	§ 35.10-3	None.
§ 35.10-5	§ 35.10-5(a), 35.10-5(b), 35.10-5(c)	None.
§ 35.11-1	None	None.
§ 35.11-5	§ 33.30	3.1.
§ 35.40-19	§ 35.40-40(a)	10.
§ 35.40-40(a)	§ 33.25-5(a), 33.25-5(b), 35.40-40	None.
§ 35.40-40(b)	§ 33.25-5(b)	41.9.2.
§ 35.40-40(c)	§ 33.25-5(a), 33.25-5(b)	41.9.1.
§ 35.40-40(d)	None	41.9.3.
§ 35.40-40(e)	None	None.
§ 35.40-43	§ 33.25-10(a), 35.40-40	1.6, 30.1.
§ 35.40-45	§ 33.25-10(b)	40.7.
§ 35.40-48	§ 35.40-40	None.
§ 35.40-50(a)	§ 35.40-40(a)	None.
§ 35.40-50(b)	None	7.1.4.
§ 35.40-50(c)	§ 35.40-40(b)	7.2.2.
§ 35.40-50(d)	§ 33.40-15(a)	7.1.4.
§ 35.40-50(e)	§ 33.35-25	None.
§ 35.40-50(f)	None	1.6, 30.2.7.
§ 35.40-55	§ 35.40-40(a)	1.6, 30.1.
		None.

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§ 35.90-20	§ 33.01-15, 33.15-1(c), 33.20-10, 33.25-20	19.2.
§ 35.90-30(a)	None	19.3.1.
§ 35.90-30(b)	None	None.
§ 35.90-30(c)	None	19.1.
§ 35.90-30(d)	None	19.3.2.
§ 35.90-30(e)	§ 33.25-15(b)	None.
§ 35.90-30(f)	§ 33.01-20	None.
§ 35.90-30(g)	§ 33.01-20	None.
§ 35.90-30(h)	§ 33.01-20	None.
§ 35.90-40	§ 33.25-20(d)	19.4.
§ 35.90-50	None	19.5.
§ 35.90-60(a)	§ 35.10-5(d)	19.6.
§ 35.90-60(b)	§ 35.10-5(e)(3)	19.6.
§ 35.90-60(c)	None	19.6.
§ 35.90-60(d)	§ 35.10-20(a)	None.
§ 35.90-60(e)	§ 35.10-20(b)	None.
§ 35.90-70(a)	§ 35.10-5(d)	19.7.
§ 35.90-70(b)	§ 35.10-25(a)	19.7.
§ 35.90-73	§ 35.10-7	None.
§ 35.90-75(a)	§ 33.25-15(a)	None.
§ 35.90-75(b)	§ 33.25-15(c)	None.
§ 35.90-75(c)	§ 33.15-10(ff), 33.15-10(gg), 33.15-10(hh), 33.15-10(jj), 33.15-20(i), 33.40-1(c)(2), 33.45-1, 33.45-5, 33.55-1(d), 35.10-30.	30.3.
§ 35.90-75(d)	§ 35.10-25(b), 35.10-30(b)	30.3.
§ 35.90-75(e)	§ 33.15-10(j)	30.3.
§ 35.90-75(f)	None	19.2.
§ 35.90-80	§ 33.25-15(d)	19.8.
§ 35.90-90	§ 33.25-15(e)	19.9.
§ 70.03-1	None	None.
§ 70.10-43	§ 70.10-43	3.16.
§ 70.27-1	None	None.
§ 71.20-20(a)(1)	§ 71.20-20(a)(1), 75.35-5(a), 75.37-5(a), 192.35-5(a)	Chap. I, Reg. 7.
§ 71.20-20(a)(1)(i)	§ 75.35-5(b), 75.37-5(b), 75.37-5(c), 192.35-5(b)	(IMO Res. A.521(13)-2/5.3.1, 6.1.2, 6.1.3, 6.1.4, 6.2.1, 6.2.2, 6.2.4).
§ 71.20-20(a)(1)(ii)	None	(IMO Res. A.521(13)-2/5.3.2).
§ 71.20-20(a)(1)(iii)	None	(IMO Res. A.521(13)-2/6.2.3).
§ 71.20-20(a)(1)(iv)	None	None.
§ 71.20-20(a)(1)(v)	None	None.
§ 71.20-20(a)(1)(vi)	None	(IMO Res. A.521(13)-2/3.1).
§ 71.25-15(a)	§ 71.25-15(a)	Chap. I, Reg. 7.
§ 71.25-15(a)(1)	§ 71.25-15(a)(1)	None.
§ 71.25-15(a)(2)	§ 71.25-15(a)(5), 71.25-15(a)(7)	None.
§ 71.25-15(a)(3)	§ 71.25-15(a)(2)	None.
§ 71.25-15(a)(4)	§ 75.37-5(b)	None.
§ 71.25-15(a)(5)	§ 71.25-15(a)(3), 71.25-15(b)	None.
§ 71.25-15(a)(6)	§ 71.25-15(a)(4)	None.
§ 71.25-15(a)(7)	None	None.
§ 71.25-15(a)(8)	§ 71.25-15(a)(9)	None.
§ 71.25-15(a)(9)	§ 71.25-15(a)(8), 75.20-15(hh), 75.20-15(ii), 75.20-15(ji), 75.20-15(II), 75.20-25(m), 75.20-25(n), 75.43-5(c)(2), 75.45-5(a), 75.90-5(d), 75.90-10(a), 78.17-85(b), 78.17-90, 192.20-25(m), 192.20-25(n), 192.43-5(c)(2), 192.45-5(a), 192.60-5(b), 192.60-10(b), 196.15-65(b), 196.15-70.	30.3.
§ 71.25-15(a)(10)	None	None.
§ 78.13-1	§ 78.13-10, 196.13-10	None.
§ 78.14-1	None	3.1.
§ 78.14-5	§ 78.14, 196.14	10.
§ 78.17-50(a)	None	18.2, 51.
§ 78.17-50(b)	§ 78.17-50(a), 78.17-50(b), 78.17-50(c), 196.15-35(a), 196.15-35(b)	18.3, 25.
§ 78.17-50(c)	§ 78.17-52	None.
§ 78.17-50(d)	None	None.
§ 78.17-50(e)	§ 78.13-20, 196.13-20	18.4.
§ 78.17-50(f)	§ 78.17-50(d), 196.15-35(c)	18.5.
§ 78.17-55	§ 78.17-50(a), 78.17-50(b), 78.17-50(d)	18.
§ 78.37-5(a)	§ 78.37-5(a)	18.5.
§ 78.47-60(a)	§ 75.15-15, 78.47-60(a), 78.47-60(b), 192.15-15	41.9.2.
§ 78.47-60(b)	§ 78.47-60(c)	41.9.1.
§ 78.47-60(c)	§ 78.47-60(c)	41.9.3.
§ 78.47-60(d)	§ 78.47-60(d)	None.
§ 78.47-60(e)	None	1.6, 30.1.
§ 78.47-62	§ 75.15-15, 78.47-63(a), 78.47-63(b)	40.7.
§ 78.47-63	§ 75.15-15, 78.47-63(c)	None.
§ 78.47-64	75.15-15, 78.47-63(a), 78.47-63(b)	None.
§ 78.47-65(a)	§ 78.47-65	7.1.4.
§ 78.47-65(b)	§ 78.47-50, 78.47-51	7.2.2.
§ 78.47-65(c)	§ 78.47-65	7.1.4.
§ 78.47-65(d)	§ 75.43-15(a)	None.
§ 78.47-65(e)	§ 75.40-35, 192.40-25	1.6, 30.2.7.
§ 78.47-65(f)	None	1.6, 30.1.
§ 78.47-72	§ 78.47-72	None.
§ 78.95-20	§ 75.15-5, 75.20-5(b), 75.45-20, 78.17-60(a), 192.15-5, 192.20-5(b), 192.45-20, 196.15-45(a)	19.2.

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§ 78.95-30	None	19.3.
§ 78.95-40	None	19.4.
§ 78.95-50	None	19.5.
§ 78.95-60(a)	§ 78.17-50(b)(7)	19.6.
§ 78.95-60(b)	§ 78.17-60(b), 196.15-45(b)	19.6.
§ 78.95-60(c)	None	19.6.
§ 78.95-60(d)	§ 78.17-70(a), 196.15-50(a)	19.7.
§ 78.95-60(e)	§ 78.17-70(b), 196.15-50(b)	None.
§ 78.95-70(a)	None	None.
§ 78.95-70(b)	§ 78.17-85(a), 196.15-65(a)	19.7.
§ 78.95-73	§ 78.17-55, 196.15-40	19.7.
§ 78.95-75(a)	§ 78.17-60(c), 78.17-60(d), 78.17-60(e), 196.15-45(c), 196.15-45(d)	None.
§ 78.95-75(b)	None	None.
§ 78.95-75(c)	§ 75.20-15(hh), 75.20-15(ii), 75.20-15(jj), 75.20-15(ll), 75.20-25(m), 75.20-25(n), 75.43-5(c)(2), 75.45-5(a), 75.90-5(d), 75.90-10(a), 78.17-90(a), 192.20-25(m), 192.20-25(n), 192.43-5(c)(2), 192.45-5(a), 192.60-5(b), 192.60-10(b), 196.15-70(a)	30.3.
§ 78.95-75(d)	§ 78.17-85(b), 78.17-90(b), 196.15-65(b)	30.3.
§ 78.95-75(e)	§ 75.20-15(j)	30.3.
§ 78.95-75(f)	None	19.2.
§ 78.95-80	§ 71.25-15(a)(6), 78.17-60(f), 196.15-45(f)	19.8.
§ 78.95-90	§ 71.25-15(a)(9)	19.9.
§ 90.03-1	None	None.
§ 90.27-1	None	None.
§ 91.20-20(a)(1)	§ 91.20-20(a)(1), 94.35-5(a), 192.35-5(a)	Chap. I, Reg. 8.
§ 91.20-20(a)(1)(i)	§ 94.35-5(b), 192.35-5(b)	(IMO Res. A.521(13)-2/5.3.1, 6.1.2, 6.1.3, 6.1.4, 6.2.1, 6.2.2, 6.2.4).
§ 91.20-20(a)(1)(ii)	None	None.
§ 91.20-20(a)(1)(iii)	None	(IMO Res. A.521(13)-2/5.3.2).
§ 91.20-20(a)(1)(iv)	None	(IMO Res. A.521(13)-2/6.2.3).
§ 91.20-20(a)(1)(v)	None	None.
§ 91.20-20(a)(1)(vi)	None	None.
§ 91.20-20(a)(1)(vii)	None	None.
§ 91.25-15(a)	§ 91.25-15, 189.25-15	(IMO Res. A.521(13)-2/3.1).
§ 91.25-15(a)(1)	§ 91.25-15(a)(1), 189.25-15(a)(1)	Chap. I, Reg. 8.
§ 91.25-15(a)(2)	§ 91.25-15(a)(5), 189.25-15(a)(5)	None.
§ 91.25-15(a)(3)	§ 91.25-15(a)(2), 189.25-15(a)(2)	None.
§ 91.25-15(a)(4)	None	None.
§ 91.25-15(a)(5)	None	None.
§ 91.25-15(a)(6)	None	None.
§ 91.25-15(a)(7)	None	None.
§ 91.25-15(a)(8)	None	None.
§ 91.25-15(a)(9)	None	None.
§ 91.25-15(a)(10)	§ 91.25-15(a)(3), 91.25-15(b), 189.25-15(a)(3), 189.25-15(b)	None.
§ 91.25-15(a)(11)	§ 91.25-15(a)(4), 189.25-15(a)(4)	None.
§ 91.25-15(a)(12)	§ 91.25-15(a)(6), 189.25-15(a)(6)	None.
§ 91.25-15(a)(13)	§ 91.25-15(a)(8), 189.25-15(a)(8)	None.
§ 91.25-15(a)(14)	§ 91.25-15(a)(7), 94.20-15(ff), 94.20-15(gg), 94.20-15(hh), 94.20-15(jj), 94.20-25(m), 94.20-25(n), 94.43-5(c)(2), 94.45-5(a), 94.90-5, 94.90-10, 94.45-5(a), 192.20-25(m), 192.20-25(n), 192.43-5(c)(2), 192.45-5(a), 192.60-5(b), 192.60-10(b)	30.3.
§ 97.13-1	None	None.
§ 97.14-1	§ 97.13-15, 196.13-15	None.
§ 97.14-5	None	3.1.
§ 97.15-35(a)	§ 97.14, 196.14	10.
§ 97.15-35(b)	None	18.2, 51.
§ 97.15-35(c)	§ 97.15-35(a), 97.15-35(b), 196.15-35(a), 196.15-35(b)	18.3.
§ 97.15-35(d)	§ 97.15-37, 196.15-37	None.
§ 97.15-35(e)	§ 97.13-20, 196.13-20	18.4.
§ 97.15-40	§ 97.15-35(c), 196.15-35(c)	18.5.
§ 97.35-5(a)	§ 97.15-35(a), 97.15-35(b), 97.15-35(c)	18.
§ 97.37-37(a)	§ 97.35-5(a)	18.5.
§ 97.37-37(b)	§ 94.15-15, 97.37-37(a), 97.37-37(b), 192.15-15	41.9.2.
§ 97.37-37(c)	§ 97.37-37(c)	41.9.1.
§ 97.37-37(d)	§ 97.37-37(c)	41.9.3.
§ 97.37-37(e)	§ 97.37-37(d)	None.
§ 97.37-39	None	1.6, 30.1.
§ 97.37-40	§ 94.15-15, 97.37-40(a), 97.37-40(b)	40.7.
§ 97.37-42	§ 97.37-40(c)	None.
§ 97.37-43(a)	§ 94.15-15, 97.37-40(a), 97.37-40(b)	None.
§ 97.37-43(b)	§ 97.37-43(a)	7.1.4.
§ 97.37-43(c)	§ 94.40-15(b)	7.2.2.
§ 97.37-43(d)	§ 97.37-43(b)	7.1.4.
§ 97.37-43(e)	§ 94.43-15(a)	None.
§ 97.37-43(f)	§ 94.40-25, 192.40-25	1.6, 30.2.7.
§ 97.37-55	None	1.6, 30.1.
§ 97.90-20	§ 97.37-55	None.
§ 97.90-30	§ 94.15-5, 94.20-5(b), 94.45-20, 97.15-45(a), 192.15-5, 192.20-5(b), 192.45-20, 196.15-45(a)	19.2.
§ 97.90-40	§ 97.15-45(e), 196.15-45(e)	19.3.
§ 97.90-50	None	19.4.
	None	19.5.

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97.90-60(a)	§ 97.15-35(b)(7), 196.15-35(b)(6)	19.6.
97.90-60(b)	§ 97.15-45(b), 196.15-45(b)	19.6.
97.90-60(c)	None	19.6.
97.90-60(d)	§ 97.15-50(a), 196.15-50(a)	None.
97.90-60(e)	§ 97.15-50(b), 196.15-50(b)	None.
97.90-70(a)	§ 97.15-35(b)(9), 196.15-35(b)(8)	19.7.
97.90-70(b)	§ 97.15-65(a), 196.15-65(a)	19.7.
97.90-73	§ 97.15-40, 196.15-40	None.
97.90-75(a)	§ 97.15-45(c), 97.15-45(d), 196.15-45(c), 196.15-45(d)	None.
97.90-75(b)	None	None.
97.90-75(c)	§ 94.20-15(ff), 94.20-15(gg), 94.20-15(hh), 94.20-15(ii), 94.20-25(m), 94.20-25(n), 94.43-5(c)(2), 94.45-5(a), 94.90-5, 94.90-10, 97.15-70(a), 192.20-25(m), 192.20-25(n), 192.43-5(c)(2), 192.45-5(a), 192.60-5(b), 192.60-10(b), 196.15-70(a)	30.3.
97.90-75(d)	§ 97.15-65(b), 97.15-70(b), 196.15-65(b), 196.15-70(b)	30.3.
97.90-75(e)	§ 94.20-15(f)	30.3.
97.90-75(f)	None	19.2.
97.90-80	§ 91.25-15(a)(6), 97.15-45(f), 196.15-45(f)	19.8.
97.90-90	§ 91.25-15(a)(8)	19.9.
107.115	§ 107.115	None.
107.231(a)	§ 107.231(a)	None.
107.231(b)	§ 107.231(b), 107.231(g), 107.231(i)	(IMO Res. A.414(XI)-1.6).
107.231(b)(1)	None	None.
107.231(b)(2)	§ 107.231(h)	None.
107.231(b)(3)	None	None.
107.231(b)(4)	§ 109.225, 109.307(b), 109.317, 109.320(b)	30.3.
107.231(e)	§ 107.231(e)	19.8.1.
107.231(f)	§ 107.231(f)	19.9.
107.231(g)	None	None.
107.231(y)	§ 107.231(y), 107.231(z)	(IMO Res. A.414(XI)-1.6).
107.231(z)	None	None.
107.239(a)	§ 107.239(a), 107.239(b), 107.239(d)	(IMO Res. A.414(XI)-1.6).
107.239(b)	§ 107.239(a)	(IMO Res. A.414(XI)-1.6).
107.239(c)	None	(IMO Res. A.414(XI)-1.6).
107.239(d)	None	(IMO Res. A.414(XI)-1.6).
107.239(e)	§ 107.239(c)	None.
107.305(bb)	§ 107.305(bb)	None.
107.305(cc)	§ 107.305(cc)	None.
108.501	None	41.9.2.
108.645(a)	§ 108.645(a)	41.9.1.
108.645(b)	§ 108.645(a)	41.9.3.
108.645(c)	None	None.
108.645(d)	None	1.6, 30.1.
108.645(e)	None	40.7.
108.646	None	None.
108.647	§ 108.647	7.1.4.
108.649(a)	§ 108.649(a), 108.649(c)	7.2.2.
108.649(b)	§ 108.649(b)	7.1.4.
108.649(c)	§ 108.649(c)	None.
108.649(d)	None	1.6, 30.2.7.
108.649(e)	§ 108.514(f)	1.6, 30.1.
108.649(f)	None	None.
108.650	None	None.
109.207(c)	§ 109.320(c)	18.
109.213	§ 109.213	18.2, 51.
109.215(a)	§ 108.503(g)	18.3.
109.215(b)	§ 109.215, 109.215(a), 109.215(b), 109.215(c), 109.217(a)	None.
109.215(c)	§ 109.215(e)	18.4.
109.215(d)	§ 109.215(d), 109.505(e)	19.2.
109.301	§ 109.217(b), 109.301, 109.305, 109.341(a)	19.3.
109.303	§ 108.503(g), 109.425	19.4.
109.305	None	19.5.
109.307	None	19.6.
109.309	§ 109.217(c), 109.217(f), 109.217(g)	19.7.
109.311(a)	None	19.7.
109.311(b)	§ 109.208	None.
109.313	§ 109.221	None.
109.315(a)	§ 109.217(d), 109.217(e)	None.
109.315(b)	None	None.
109.315(c)	§ 109.225(a), 109.317, 109.320(b)	30.3.
109.315(d)	§ 109.225(b), 109.307(b)	30.3.
109.315(e)	None	19.2.
109.315(f)	None	19.8.
109.317	§ 109.219	19.9.
109.319	§ 107.231(f)	10.
109.323	§ 109.323, 109.325	None.
109.425	§ 109.425	18.5.
109.433(d)	§ 109.433(d)	18.5.
109.433(e)	§ 109.433(e)	None.
109.503(c)(2)	§ 109.503(c)(2)	11.5.
112.15-1(c)	§ 112.15-1(c)	

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§ 112.15-1(g)	§ 33.20-1(c)(3), 75.70-10, 75.70-15, 94.50-10, 94.50-15, 112.15-1(g), 192.50-10, 192.50-15	11.4, 15.7.
§ 112.15-5(u)	None	15.9.
§ 160.040-6(a)	§ 160.040-6(a)	None.
§ 160.040-6(b)	§ 160.040-6(a)	30.3.
§ 160.040-6(c)	§ 160.040-6(a)	30.3.
§ 160.040-6(d)	§ 160.040-6(b)	None.
§ 160.040-6(e)	§ 160.040-6(b)	None.
§ 167.03-1	None	None.
§ 167.35-1	§ 167.35-1	None.
§ 167.65-2	§ 167.65-1(c), 167.65-1(d)	None.
§ 168.05-5	§ 168.05-5	18.
§ 188.03-1	None	None.
§ 188.27-1	None	None.
§ 189.20-20(a)(1)	§ 189.20-20(a)(1)	None.
§ 196.15-40	§ 196.15-35(a), 196.15-35(b), 196.15-35(c)	None.
§ 196.35-5(a)	§ 196.35-5(a)	18.
§ 196.37-37(a)	§ 196.37-37(a), 196.37-37(b)	18.5.
§ 196.37-37(b)	§ 196.37-37(c)	41.9.2.
§ 196.37-37(c)	§ 196.37-37(c)	41.9.1.
§ 196.37-37(d)	§ 196.37-37(d)	41.9.3.
§ 196.37-37(e)	None	None.
§ 196.37-39	§ 196.37-40(a), 196.37-40(b)	1.6, 30.1.
§ 196.37-40	§ 196.37-40(c)	40.7.
§ 196.37-42	§ 196.37-40(a), 196.37-40(b)	None.
§ 196.37-43(a)	§ 196.37-43(a)	None.
§ 196.37-43(b)	None	7.1.4.
§ 196.37-43(c)	§ 196.37-43(b)	7.2.2.
§ 196.37-43(d)	§ 192.43-15(a)	7.1.4.
§ 196.37-43(e)	§ 194.40-25	None.
§ 196.37-43(f)	None	1.6, 30.2.7.
§ 196.37-49	§ 196.37-49	1.6, 30.1.
(None required)	None	None.
(No change)	§ 2.75	1.4.4, 1.4.5, 2.2, 4.6, 21.4.3, 27.3.1, 27.3.2.1, 27.3.2.2, 27.3.3.1, 27.3.3.2, 27.3.5, 43.
	§ 30.01-6(d), 70.05-10(d), 90.05-10(d), 168.05-10(d)	4.4.
	§ 111.75-16	2.1.
	§ 112.15-1(c)	11.4, 45.7.
(Separate NPRM)	§ 33.40-1, 161.010	11.5.
	§ 113.25	27.1.2.
	§ 113.30	6.4.2.
	§ 113.50	6.4.1.
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	§ 160.005	32.
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	§ 160.017	48.
	§ 160.018	48.7.
	§ 160.022	38, 40.
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	§ 160.035	41.7.6.
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	§ 160.040	35.
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	§ 160.055	38, 40.
	§ 160.062	32.
	(§ 160.063)	38.6.3.
	(§ 160.069)	48.
	(§ 160.070)	47.
	§ 160.071	48.
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The existing regulations listed below are to be deleted. No new regulations are proposed and there is no corresponding regulation in SOLAS 74/83.

§ 33.01-25
33.01-30(a)
33.01-30(c)
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33.05-3(b)
33.05-3(d)
33.05-5(b)

33.05-15(b)
33.05-20(b)
33.05-25(b)
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33.07-5
33.07-10(d)
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33.10-1(e)
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33.10-10(h)
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33.15-10(y)

33.15-10(aa)
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33.20-1(h)
33.20-5
33.25-5(d)
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33.55-10(c)
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35.10-5(i)

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75.10-5(b)(2)
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75.10-5(a)(3)
75.10-5(a)(4)
75.10-5(a)(5)
75.10-5(a)(6)
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75.10-10(a)(4)
75.10-10(b)(3)
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75.15-10(b)(9)
75.15-10(c)(5)
75.15-10(c)(6)
75.15-10(c)(7)
75.15-10(d)
75.20-15(p)
75.20-15(r)
75.20-15(u)
75.20-15(y)
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94.01-1	167.35-72
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94.10-5(a)(4)	167.55-5(j)
94.10-5(c)	167.65-1
94.10-5(d)	167.65-50
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94.10-20(a)	189.25-15
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94.15-10(c)(1)	192.10-5(d)
94.15-10(c)(2)	192.10-10(c)
94.20-15(p)	192.10-40(c)
94.20-15(r)	192.15-10(c)(1)
94.20-15(u)	192.15-10(c)(2)
94.20-15(y)	192.20-15(p)
94.20-15(aa)	192.20-15(r)
94.20-25(d)	192.20-15(u)
94.20-25(h)	192.20-15(y)
94.20-25(o)	192.20-15(aa)
94.25-5(e)	192.20-25(d)
94.30-10(c)	192.20-25(h)
94.33-5(e)	192.20-25(o)
94.33-10(e)	192.25-5(e)
94.33-15	192.30-10(c)
94.45-25	192.33-5(e)
94.45-90	192.33-10(e)
97.15-25(a)(3)	192.33-15
97.15-35(d)	192.45-25
97.37-37(e)	192.45-90
97.37-37(f)	196.15-25(a)(3)
108.501	196.15-35(d)
108.507(a)(1)	196.37-37(e)
108.508(e)	196.37-37(f)

List of Subjects

46 CFR Part 30

Cargo vessels, Foreign relations, Hazardous materials transportation, Penalties, Reporting and recordkeeping requirements, Seamen.

46 CFR Part 31

Cargo vessels, Marine safety, Reporting and recordkeeping requirements.

46 CFR Part 33

Cargo vessels, Marine safety, Occupational safety and health, Seamen.

46 CFR Part 35

Cargo vessels, Marine safety, Navigation (water), Occupational safety and health, Reporting and recordkeeping requirements, Seamen.

46 CFR Part 70

Marine safety, Passenger vessels, Reporting and recordkeeping requirements.

46 CFR Part 71

Marine safety, Passenger vessels, Reporting and recordkeeping requirements.

46 CFR Part 75

Marine safety, Passenger vessels.

46 CFR Part 78

Marine safety, Navigation (water), Passenger vessels, Penalties, Reporting and recordkeeping requirements.

46 CFR Part 90

Cargo vessels, Marine safety.

46 CFR Part 91

Cargo vessels, Marine safety, Reporting and recordkeeping requirements.

46 CFR Part 94

Cargo vessels, Marine safety.

46 CFR Part 97

Cargo vessels, Marine safety, Navigation (water), Reporting and recordkeeping requirements.

46 CFR Part 107

Marine safety, Oil and gas exploration, Reporting and recordkeeping requirements, Vessels.

46 CFR Part 108

Fire prevention, Marine safety, Occupational safety and health, Oil and gas exploration, Vessels.

46 CFR Part 109

Marine safety, Occupational safety and health, Oil and gas exploration, Reporting and recordkeeping requirements, Vessels.

46 CFR Part 112

Vessels.

46 CFR Part 154

Cargo vessels, Gases, Hazardous materials transportation, Marine safety, Reporting and recordkeeping requirements.

46 CFR Part 160

Marine safety, Reporting and recordkeeping requirements.

46 CFR Part 161

Fire prevention, Marine safety, Incorporation by reference, Reporting and recordkeeping requirements.

46 CFR Part 167

Fire prevention, Marine safety, Reporting and recordkeeping requirements, Schools, Seamen, Vessels.

46 CFR Part 168

Occupational safety and health, Schools, Seamen, Vessels.

46 CFR Part 188

Marine safety, Oceanographic research vessels.

46 CFR Part 189

Marine safety, Oceanographic research vessels, Reporting and recordkeeping requirements.

46 CFR Part 192

Marine safety, Oceanographic research vessels.

46 CFR Part 196

Marine safety, Oceanographic research vessels, Reporting and recordkeeping requirements.

46 CFR Part 199

Cargo vessels, Marine safety, Oil and gas exploration, Passenger vessels, Reporting and recordkeeping requirements, Vessels.

In consideration of the foregoing, it is proposed that Chapter I, Title 46, Code of Federal Regulations be amended as follows:

1. By adding Subchapter W to read as follows:

SUBCHAPTER W—LIFESAVING APPLIANCES AND ARRANGEMENTS

PART 199—LIFESAVING SYSTEMS FOR CERTAIN INSPECTED VESSELS

Subpart A—General

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- 199.5 Incorporation by reference.
- 199.7 Transitional provisions.
- 199.10 Application.
- 199.15 Requirements for vessels built before July 1, 1986.
- 199.25 Additional requirements.
- 199.30 Definitions.
- 199.40 Equivalent and novel lifesaving appliances and arrangements.

Subpart B—Requirements for All Vessels

- 199.62 Survival craft portable two way radiotelephone equipment: ocean, short international voyage, coastwise, or Great Lakes services.
- 199.64 Emergency Position Indicating Radiobeacons (EPIRB) and Search and Rescue Transponders (SART).
- 199.66 Portable radio apparatus for survival craft: international voyage.
- 199.68 Distress flares.
- 199.70 Ring life buoys.
- 199.72 Lifejackets.

Sec.

- 199.73 Rescue boat immersion suits: ocean, short international voyage, coastwise, or Great Lakes service.
- 199.75 Lights for lifejackets and immersion suits: ocean, short international voyage, coastwise, or Great Lakes service.
- 199.76 Whistles for lifejackets and immersion suits: ocean or short international voyage service.
- 199.78 Stowage of lifejackets and immersion suits.
- 199.80 Station bill (muster list) and emergency instructions.
- 199.90 Operating instructions.
- 199.110 Survival craft muster and embarkation arrangements.
- 199.120 Launching stations.
- 199.130 Stowage of survival craft.
- 199.133 Stowage of lifeboats.
- 199.135 Stowage of life rafts and inflatable buoyant apparatus.
- 199.137 Stowage of life floats and buoyant apparatus.
- 199.140 Stowage of rescue boats.
- 199.150 Survival craft launching and recovery arrangements: general.
- 199.153 Survival craft launching and recovery arrangements using falls and a winch.
- 199.155 Survival craft launching and recovery arrangements: other devices.
- 199.157 Lifeboat launching and recovery arrangements.
- 199.160 Rescue boat embarkation, launching and recovery arrangements.
- 199.170 Line-throwing appliance: ocean, short international voyage, or coastwise service.
- 199.175 Survival craft and rescue boat equipment.

Subpart C—Additional Requirements for Passenger Vessels

- 199.200 General.
- 199.201 Survival craft.
- 199.202 Rescue boats.
- 199.203 Marshalling of life rafts.
- 199.211 Ring life buoys.
- 199.212 Lifejackets: ocean or short international voyage service.
- 199.213 Lifejacket lights; ferries.
- 199.214 Immersion suits and thermal protective aids: ocean, short international voyage, coastwise, or Great Lakes service.
- 199.217 Station bill (muster list).
- 199.220 Survival craft and rescue boat embarkation arrangements.
- 199.230 Stowage of survival craft.
- 199.240 Muster stations.
- 199.245 Survival craft embarkation and launching arrangements.
- 199.250 Fixed radio installation for lifeboats: international voyage.

Subpart D—Additional Requirements for Cargo Vessels

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- 199.261 Survival craft.
- 199.262 Rescue boats.
- 199.271 Ring life buoys.
- 199.272 Lifejackets.
- 199.273 Immersion suits: ocean, coastwise, or Great Lakes service.

Sec.

- 199.280 Survival craft embarkation and launching arrangements: ocean, coastwise, or Great Lakes service.
- 199.290 Stowage of survival craft.

Subpart E—Additional Requirements for Tank Vessels

- 199.300 General.
- 199.310 Survival craft.
- 199.320 Survival craft embarkation and launching arrangements: ocean, coastwise, or Great Lakes service.

Subpart F—Additional Requirements for Special Purpose Ships

- 199.400 General.
- 199.405 Lifesaving appliance requirements.
- 199.410 Rescue boats: special purpose ships operating on the continental shelf of the United States.

Subpart G—Additional Requirements for Nautical School Ships

- 199.500 General.
- 199.505 Lifesaving appliance requirements.

Subpart H—Additional Requirements for Mobile Offshore Drilling Units

- 199.600 General.
- 199.605 Survival craft.
- 199.610 Rescue boats.
- 199.630 Ring life buoys.
- 199.640 Immersion suits.
- 199.645 Station bill.
- 199.650 Survival craft embarkation and launching arrangements.

Authority: 46 U.S.C. 3306, 3703; 49 CFR 1.46.

Subpart A—General**§ 199.5 Incorporation by reference.**

(a) Certain materials are incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than the one listed in paragraph (b) of this section, notice of change must be published in the *Federal Register* and the material made available to the public. All approved material is on file at the Office of the Federal Register, 1100 L Street, NW., Washington, DC, and at the U.S. Coast Guard, Merchant Vessel Inspection Division (G-MVI), 2100 Second Street, SW., Washington, DC 20593-0001, and is available from the sources indicated in paragraph (b) of this section.

(b) The material approved for incorporation by reference in this part, and the sections affected are:

- American Society for Testing and Materials*
1916 Race St., Philadelphia, PA 19103
ASTM F1003, Standard Specification for Searchlights on Motor Lifeboats, 1986..... 199.175
ASTM F1014, Standard Specification for Flashlights on Vessels, 1986..... 199.175
- International Maritime Organization (IMO)*
Publications Section, 4 Albert Embankment, London SE1 7SR, England

- Resolution A.181(VI), "Instructions on Survival in Life Rafts", October 28, 1969..... 199.175
- Resolution A.216(VII), "Instructions for Action in Survival Craft", October 12, 1971..... 199.175
- Resolution A.520(13), "Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Life-saving Appliances and Arrangements", November 1983..... 199.40
- Resolution A.603(15), "Symbols Related to Life-saving Appliances and Arrangements", November 1987..... 199.90
- Resolution A.604(15), "Performance Standards for Survival Craft Radar Transponder for Use in Search and Rescue Operations", November 1987..... 199.64
- Resolution A.605(15), "Performance Standards for Survival Craft Two-way VHF Radiotelephone Apparatus", November 1987..... 199.62
- 1983 Amendments to the International Convention for the Safety of Life at Sea, 1974 (SOLAS 74/83)..... 199.7; 199.30; 199.68; 199.70; 199.72; 199.75; 199.110; 199.135; 199.150; 199.153; 199.175; 199.201; 199.202; 199.261; 199.262; 199.310; 199.605; 199.610
- Resolution MSC.4(48), "International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk" (IBC Code), 1983..... 199.320
- Resolution MSC.5(48), "International Code for the Construction and Equipment of Ships carrying Liquefied Gases in Bulk" (IGC Code), 1983..... 199.320
- International Convention for the Prevention of Pollution from Ships, 1973, as modified by the 1978 Protocol related thereto (MARPOL 73/78)..... 199.320

§ 199.7 Transitional provisions.

This subchapter is based in part on Chapter III, "Life-saving Appliances and Arrangements" of SOLAS 74/83. The Coast Guard approves some lifesaving appliances under subparts of Subchapter Q of this chapter that have not been revised to meet SOLAS 74/83. This subchapter requires those appliances to meet both Subchapter Q and SOLAS 74/83. Where the requirements conflict, SOLAS 74/83 takes precedence. Until revisions to Subchapter Q are published, the Commandant (G-MVI) will provide guidance on the approval requirements for these appliances.

§ 199.10 Application.

(a) A nonself-propelled vessel without accommodations or work stations on board is not required to carry lifesaving appliances meeting this subchapter. This subchapter contains requirements for lifesaving appliances and arrangements on the following self-propelled vessels

and nonself-propelled vessels with accommodations or work stations:

(1) Each tank vessel required to meet Subchapter D of this chapter.

(2) Each cargo and miscellaneous vessel required to meet Subchapter I of this chapter. For the purposes of this subchapter, the term "cargo vessel" also includes each miscellaneous vessel under Subchapter I.

(3) Each mobile offshore drilling unit required to meet Subchapter I-A of this chapter.

(4) Each passenger vessel required to meet Subchapter H of this chapter.

(5) Each offshore supply vessel required to meet Subchapter L of this chapter (proposed, 48 FR 6636).

(6) Each nautical school ship required to meet Subchapter R of this chapter.

(7) Each oceanographic research vessel required to meet Subchapter U of this chapter.

(b) Each section of this subchapter applies to each vessel in each service listed in this paragraph unless otherwise stated in the section. Each vessel that complies with the lifesaving requirements in a section of this subchapter for a particular service is considered to meet the requirements for each service that follows it in the following list. The services are:

(1) Ocean (including international voyage).

(2) Short international voyage (passenger vessels only).

(3) Coastwise.

(4) Great Lakes.

(5) Lakes, bays, and sounds.

(6) Rivers.

(c) For the purposes of this subchapter—

(1) "similar stage of construction" means the stage at which—

(i) construction identifiable with a specific vessel begins; and
(ii) assembly of that vessel comprising at least 50 metric tons (55.1 U.S. tons) or 1% of the estimated mass of all structural material, whichever is less, has been achieved; and

(2) "vessel constructed" means "vessel the keel of which is laid or which is at a similar stage of construction".

(d) For the purposes of this subchapter, a vessel converted to a passenger vessel must be treated as a passenger vessel constructed on the date when the conversion begins.

(e) Subject to § 199.15, each vessel constructed before July 1, 1986 must meet this subchapter except for—

(1) The number, type, and arrangement of lifeboats, lifeboat davits, winches, inflatable liferafts, liferaft launching equipment, rescue boats, life floats, and buoyant apparatus;

(2) Two-way radiotelephone apparatus under § 199.62;

(3) Emergency Position Indicating Radio Beacons (EPIRB) and Search and Rescue Transponders (SART) for survival craft under § 199.64(b) and § 199.175(c)(12); and

(4) Immersion suits under § 199.214 for a vessel required to meet Subpart C of this subchapter.

(f) Each item of lifesaving equipment carried on board the vessel in addition to equipment of the type required under this part, must—

(1) Be approved by the Commandant (G-MVI); or

(2) Be acceptable to the cognizant Officer in Charge of Marine Inspection (OCMI) for use on the vessel.

§ 199.15 Requirements for vessels built before July 1, 1986.

This section applies to each vessel built before July 1, 1986 that does not meet the applicable requirements in Subparts B through H of this subchapter.

(a) The number, type, and arrangement of lifeboats, lifeboat davits, winches, inflatable liferafts, liferaft launching equipment, rescue boats, life floats, and buoyant apparatus must be as required for the vessel on June 30, 1986, as long as the arrangement or equipment is continued in use on the vessel.

(b) When any lifesaving appliance or arrangement on a vessel is replaced or a vessel undergoes repairs, alterations or modifications of a major character involving replacement of, or any addition to, the existing lifesaving appliances or arrangements, each new lifesaving appliance and arrangement must meet this subchapter, unless the vessel can not accommodate the new appliance or arrangement.

(1) A survival craft is not required to meet this subchapter if it is replaced without replacing its davit and winch.

(2) A davit and its winch are not required to meet this subchapter if one or both are replaced without replacing the survival craft.

(c) On or before July 1, 1991, each vessel in ocean, short international voyage, coastwise, or Great Lakes service, must have survival craft portable two-way radiotelephone apparatus meeting § 199.62.

(d) On or before July 1, 1991, each vessel of a type required to meet Subpart C of this subchapter in ocean, short international voyage, coastwise, or Great Lakes service, must have immersion suits and thermal protective aids meeting § 199.214.

(e) On or before July 1, 1991, each vessel of a type required to meet Subpart D of this subchapter in ocean or

coastwise service, must have liferafts meeting § 199.261(b)(2), § 199.261(h), and § 199.290(b).

(f) On or before July 1, 1991, each vessel equipped with a liferaft not served by a launching appliance, and each vessel equipped with an inflatable buoyant apparatus, must have rail or bulwark openings or mounting arrangements meeting § 199.135(c).

(g) On or before July 1, 1991, each set of lifeboat davits on a vessel of a type required to meet Subpart D of this subchapter in ocean, coastwise, or Great Lakes service, must be gravity type davits with a winch. For open lifeboats, boarding of the lifeboat in the stowed position is not required.

(h) On or before July 1, 2001, each lifeboat on a vessel of a type required to meet Subpart D of this subchapter in ocean, coastwise, or Great Lakes service, must be a totally enclosed lifeboat.

(i) After July 1, 1991, each new lifeboat for a tank ship certificated to carry crude, product, chemicals, or liquified gases; having a flashpoint less than 60° C (closed cup test), must not be of aluminum construction in the hull or canopy.

(j) On or before April 1, 1991, each mobile offshore drilling unit (MODU) required to meet Subpart H of this subchapter must either have—

(1) Lifeboats and liferafts that meet § 199.605(b); or

(2) Totally enclosed fire-protected lifeboats of sufficient capacity to accommodate 100% of the persons permitted on board, plus additional totally enclosed lifeboats or davit-launched liferafts of sufficient capacity to accommodate 100% of the persons permitted on board the unit.

(i) An open lifeboat may be used instead of davit-launched liferafts as long as it is in good working order. An open lifeboat requiring extensive repairs must be replaced with either a totally enclosed fire-protected lifeboat, or davit-launched liferafts.

(ii) A submersible MODU constructed before January 3, 1979 may continue to use the lifesaving arrangements described on its Certificate of Inspection in effect on [insert effective date].

(k) On or before July 1, 1991, each passenger ferry, and each other passenger vessel on ocean, short international voyage, or coastwise service, must have the number of lifeboats, liferafts, and inflatable buoyant apparatus meeting § 199.201.

(l) On or before July 1, 1991, each lifeboat on a vessel must be propelled—

(1) Either by motor or by a hand-propelling gear meeting Subpart 160.034

of this chapter if the lifeboat has a capacity of at least 60 persons, but less than 100 persons; or

(2) By motor if the lifeboat has a capacity of 100 persons or more.

(m) A lifesaving appliance required under this section and in use on a vessel before July 1, 1991 is not required to comply fully with this subchapter as long as it—

(1) Is Coast Guard approved;

(2) Meets the requirements for the vessel in effect before [insert effective date]; and

(3) Is maintained in good and serviceable condition.

§ 199.25 Additional requirements.

The Officer in Charge, Marine Inspection (OCMI) may require a vessel to carry specialized or additional lifesaving equipment if,—

(a) the OCMI determines the conditions of the voyage render the requirements of this subchapter inadequate; or

(b) the vessel is operated in Arctic, Antarctic, or other severe conditions not covered under this subchapter.

§ 199.30 Definitions.

Each term defined elsewhere in this chapter for a particular class of vessel applies to this subchapter unless a different definition is given in this section.

"Accommodation" means a cabin or other covered or enclosed place intended to carry persons. Each place where passengers are carried is considered an accommodation, whether or not it is covered or enclosed.

"Embarkation station" means the place where a survival craft is boarded.

"Fleet angle" for a wire rope leading to a winch drum means the angle included between an imaginary line from the lead sheave perpendicular to the axis of the drum and the line formed by the wire rope when led from the lead sheave to either extremity of the drum.

"Float-free" launching means that method of launching a lifesaving appliance whereby the appliance is automatically released from a sinking vessel and is ready for use. In the case of an inflatable lifesaving appliance, inflation takes place automatically.

"Free-fall" launching means that method of launching a survival craft whereby the craft with its complement of persons and equipment on board is released and allowed to fall into the water without any restraining apparatus.

"Immersion suit" means a device approved by the Commandant (G-MVI) under Subpart 160.171 of this chapter. Except for a vessel on an international

voyage constructed on or after July 1, 1986,—

(a) An exposure suit approved under former Subpart 160.071 of this chapter is an immersion suit for the purposes of this subchapter, and

(b) An unapproved suit in use on the vessel before November 1, 1980 is accepted for use on that vessel in place of an immersion suit if—

(1) It is similar or identical to an approved suit; and

(2) It is in serviceable condition.

"Inflatable" appliance means one that depends upon non-rigid, gas filled chambers for buoyancy and that is normally kept uninflated until ready for use.

"Inflated" appliance means one that depends upon non-rigid, gas filled chambers for buoyancy and that is kept inflated and ready for use at all times.

"Launching appliance" or "launching arrangement" means a device or devices for safely transferring a survival craft or rescue boat from its stowed position to the water. For a launching arrangement using a davit, the term includes the davit, winch and falls.

"Length" means the load line length defined in § 42.13-15(a) of this chapter.

"Lifejacket", for the purposes of this subchapter, means a flotation device approved by the Commandant (G-MVI) as—

(a) A "life preserver"; or

(b) As meeting Regulations III/30.2 and III/32.1 of SOLAS 74/83.

"Marine escape slide" means a device which includes an inflatable escape slide and an inflatable boarding platform. The device allows survivors to abandon the ship by sliding from the embarkation deck down to the boarding platform floating on the water. Survival craft are then boarded from the boarding platform. Although it does not transfer a survival craft from the stowed position to the water, a marine escape slide is considered to be a "launching appliance" for the purposes of this subchapter.

"Molded depth" is defined in § 42.13-15(e) of this chapter.

"Muster station" means the place where the crew and passengers assemble before boarding a survival craft.

"Novel" lifesaving appliance or arrangement means one that has new features not fully covered by the provisions of this subchapter but providing an equal or higher standard of safety.

"Retrieval" means the safe recovery of survivors.

"Seagoing condition" means the operating condition of the vessel with the personnel, equipment, fluids and

ballast necessary for safe operation on the waters where the vessel operates. For bottom-bearing mobile offshore drilling units, the term also applies in the bottom-bearing mode, but the "lightest seagoing condition" is considered to be the highest anticipated operating condition.

"Survival craft" means a craft capable of sustaining the lives of persons in distress after abandoning the vessel on which they were carried. The term includes lifeboats, liferafts, buoyant apparatus, and life floats, but does not include rescue boats.

"Toxic vapor or gas" means a product for which emergency escape respiratory protection is required under subchapter 17 of the International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (IBC Code), and in subchapter 19 of the International Code for the Construction and Equipment of Ships carrying Liquefied Gases in Bulk (IGC Code).

§ 199.40 Equivalent and novel lifesaving appliances and arrangements.

(a) Where this subchapter requires a particular lifesaving appliance or arrangement, the Commandant (G-MVI) may accept any other appliance or arrangement that is at least as effective as that specified. If necessary, the Commandant (G-MVI) may require engineering evaluations and tests to demonstrate the equivalence of the substitute appliance or arrangement.

(b) The Commandant (G-MVI) may approve a novel lifesaving appliance or arrangement, if it has performance characteristics at least equivalent to the appliance or arrangement required under this subchapter, and—

(1) Is evaluated and tested under IMO Resolution A.520(13), "Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Lifesaving Appliances and Arrangements"; or

(2) Has successfully undergone evaluation and tests that are substantially equivalent to those recommendations.

Subpart B—Requirements for All Vessels

§ 199.62 Survival craft portable two-way radiotelephone equipment: ocean, short international voyage, coastwise, or Great Lakes services.

This section applies to each vessel in ocean, short international voyage, coastwise, or Great Lakes service, which is equipped with lifeboats, liferafts, or inflatable buoyant apparatus.

(a) Each vessel must have survival craft portable two-way radiotelephone equipment meeting the regulations of the Federal Communications Commission at 47 CFR 80.271 and IMO Resolution A.605(15). Each radio must operate on 156.3 MHz (channel 6), and 156.8 MHz (channel 16).

(b) A radio for each survival craft is not required; however, at least three such radios must be on each vessel.

(c) Other transceivers used on board the vessel that are not incompatible with the appropriate requirements of the Federal Communications Commission are acceptable to meet this requirement.

§ 199.64 Emergency Position Indicating Radiobeacons (EPIRB) and Search and Rescue Transponders (SART).

(a) *Ocean, short international voyage, coastwise, or Great Lakes services.* Each vessel in ocean, short international voyage, coastwise, or Great Lakes service, except as provided under paragraph (c), (d), or (e) of this section, must have on each side of the vessel, a Category 1, float-free, automatically activated, 406 MHz Satellite Emergency Position Indicating Radio Beacon (EPIRB) meeting Federal Communications Commission (FCC) regulations at 47 CFR 80.1061 (See 53 FR 37308 of September 26, 1988), stowed where it—

(1) Is readily accessible for testing and use; and

(2) Will not be obstructed when it floats free of the vessel.

(b) *Ocean, short international voyage, or coastwise services.* (1) Unless each liferaft on the vessel is equipped with a Class S EPIRB, a Category 2 Satellite EPIRB, or a Search and Rescue Transponder (SART), each vessel in ocean, short international voyage, or coastwise service, must have

(i) Two Class S EPIRBs which meet the FCC regulations at 47 CFR 80.1059,

(ii) Two Category 1 or Category 2 Satellite EPIRBs which meet FCC regulations at 47 CFR 80.1061, or (See 53 FR 37308, of September 26, 1988)

(iii) Two SARTs which meet the FCC regulations at 47 CFR 80.375(e) and IMO Resolution A.604(15).

(2) Each EPIRB or SART must be installed—

(i) In a weathertight enclosure;

(ii) One on each side of the vessel;

(iii) In a readily accessible location;

(iv) If the vessel has two or more widely separated deckhouses, at separate deckhouses; and

(v) At or near a liferaft embarkation station.

(3) The Category 1 Satellite EPIRBs required under paragraph (a) of this section may be considered to meet the

requirement in paragraph (b)(1) of this section, if their installation meets paragraphs (b)(2)(iii), (b)(2)(iv), and (b)(2)(v) of this section.

(c) *Alternative: nonself-propelled vessels.* An EPIRB is not required on a nonself-propelled vessel if the vessel is normally—

(1) under tow;

(2) moored to or alongside a mobile offshore drilling unit or self-propelled vessel; or

(3) moored to shore.

(d) *Alternative: Class A EPIRBs installed on or before [insert effective date].* Until [insert date 6 years after effective date], a Coast Guard approved Class A EPIRB may be used to meet the requirement for an EPIRB under paragraph (a) of this section. Each Class A EPIRB carried under this paragraph must have been installed on the vessel on or before [insert effective date]. Each Class A EPIRB replaced after [insert effective date] must be replaced with an EPIRB meeting § 199.64(a).

(e) *Alternative: Class C EPIRBs installed on Great Lakes vessels on or before [insert effective date].* Until [insert date 6 years after effective date], two Class C EPIRBs may be used to meet the requirement for an EPIRB on vessels in Great Lakes service under paragraph (a) of this section. Each Class C EPIRB carried under this paragraph must have been installed on the vessel on or before [insert effective date]. Each Class C EPIRB replaced after [insert effective date] must be replaced with an EPIRB meeting § 199.64(a). Class C EPIRBs carried under this paragraph must be installed—

(1) Each in a weathertight enclosure;

(2) Each in a readily accessible location;

(3) One on each side of the vessel;

(4) If the vessel has two or more widely separated deckhouses, at separate deckhouses; and

(5) Each at or near a principal embarkation station.

§ 199.66 Portable radio apparatus for survival craft: international voyage.

Except as specified under paragraphs (a) and (b) of this section, each vessel on an international voyage carrying a Class A EPIRB as an alternative to a Category 1, 406 MHz Satellite EPIRB, must have a portable radio apparatus Type Approved by the FCC.

(a) The portable radio apparatus is not required if a fixed radio installation meeting the regulations of the Federal Communications Commission is fitted in a lifeboat on each side of the vessel or in a stern-launched lifeboat under § 199.261(c).

(b) The OCMI may exempt a vessel from the requirement to carry a portable radio apparatus on voyages of such duration that the apparatus is unnecessary.

(c) The portable radio apparatus must be stowed—

(1) in a protected and easily accessible position ready to be moved to any survival craft in an emergency; or

(2) in the case of a vessel with lifeboats in widely separated positions fore and aft, the portable radio apparatus must be stowed in the vicinity of the lifeboats farthest away from the vessel's main transmitter.

(d) Each totally enclosed lifeboat on a vessel carrying a portable radio apparatus must be equipped with a collapsible rod antenna meeting the regulations of the Federal Communications Commission at 47 CFR 80.265(e)(2). The boat must also have mounting arrangements to hold the antenna in its operating position.

§ 199.68 Distress flares.

(a) *Ocean, short international voyage, or coastwise service.* This paragraph applies to each vessel in ocean, short international voyage, or coastwise service, except for vessels of less than 150 tons gross tonnage and not carrying passengers, persons in addition to the crew, or offshore workers.

(1) Each vessel must carry not less than 12 rocket parachute flares approved by the Commandant (G-MVI) as meeting Subpart 160.036 of this Chapter, Regulation III/30.2 of SOLAS 74/83, and Regulation III/35 of SOLAS 74/83.

(2) A vessel less than 150 tons gross tonnage that is not a passenger vessel, but carries passengers, persons in addition to the crew, or offshore workers, is not required to meet paragraph (a)(1) of this section if it carries six hand red flare distress signals approved under Subpart 160.021 of this chapter, and six hand orange smoke distress signals approved under Subpart 160.037 of this chapter.

(b) *Great Lakes service.* Each vessel of 150 tons gross tonnage and over in Great Lakes service must carry not less than 12 hand red flare distress signals approved under Subpart 160.021 of this chapter.

(c) *Exemption: vessels on short runs.* Vessels operating on short runs limited to approximately 30 minutes away from the dock are not required to carry distress flares under this section.

(d) *Stowage.* Each flare carried to meet this section must be stowed in one of the following:

(1) A portable watertight container carried within the pilothouse or on the navigating bridge. An acceptable watertight container is described in § 160.021-6 of this chapter.

(2) A portable magazine chest secured above the freeboard deck, away from heat, in the vicinity of the pilothouse or navigating bridge. An acceptable magazine chest is described in Subpart 160.038 of this chapter.

§ 199.70 Ring life buoys.

(a) *General.* Each vessel must have two or more ring life buoys.

(1) Each ring life buoy on a vessel must—

(i) Be approved under Subpart 160.050 of this chapter;

(ii) Be of the 800 mm (30 in.) size;

(iii) Be readily accessible;

(iv) Be stowed in a way that it can be rapidly cast loose; and

(v) Not be permanently secured in any way.

(2) At least one ring life buoy on each side of the vessel must be fitted with a buoyant lifeline. The lifeline must—

(i) Be at least as long as twice the height where it is stowed above the waterline in the lightest seagoing condition, or 30 m (100 ft.), whichever is the greater;

(ii) Be non-kinking;

(iii) Have a diameter of not less than 8 mm (5/16 in.);

(iv) Have a breaking strength of not less than 5 kN (1,124 lb.); and

(v) Be of a dark color if synthetic, or of a type certified to be resistant to deterioration from ultraviolet light.

(3) Not less than one-half of the total number of ring life buoys, but at least two, must each have a water light approved by the Commandant (G-MVI) as meeting Subpart 161.010 of this Chapter, Regulation III/30.2 of SOLAS 74/83, and Regulation III/31.2 of SOLAS 74/83. The ring life buoys with a water light, including any with a self-activating smoke signal under paragraph (c) of this section—

(i) Must have a lanyard between 1 m (39 in.) and 2 m (78 in.) long securing the water light to the ring life buoy;

(ii) Must be equally distributed on both sides of the vessel; and

(iii) Unless the vessel carries less than four ring life buoys, must not be the ring life buoys with lifelines under paragraph (a)(2) of this section.

(b) *Self-propelled vessels: all services.* On each self-propelled vessel, one or more ring life buoys must be readily available—

(1) On each side of the vessel;

(2) As far as practicable, on each open deck extending to the side of the vessel; and

(3) Near the stern.

(c) *Ocean or short international voyage service.* On each vessel in ocean or short international voyage service, not less than two of the ring life buoys with water lights must each have a self-activating smoke signal approved by the Commandant (G-MVI) as meeting Subpart 160.057 of this Chapter, Regulation III/30.2 of SOLAS 74/83, and Regulation III/31.3 of SOLAS 74/83. Each of these ring life buoys must be capable of quick release from the navigating bridge.

(d) *Ocean, short international voyage, or coastwise service.* Each ring life buoy on a vessel in ocean, short international voyage, or coastwise service must be orange.

§ 199.72 Lifejackets.

(a) *General.* A lifejacket must be provided for each person permitted on board the vessel. Each lifejacket must be approved by the Commandant (G-MVI) as meeting Subpart 160.002, Subpart 160.005, or Subpart 160.055 of this Chapter. On each vessel in ocean, short international voyage, or coastwise service, each lifejacket must also be approved by the Commandant as meeting Regulations III/30.2 and III/32.1 of SOLAS 74/83.

(1) In addition,—

(i) A number of child-size lifejackets equal to at least 10% of the number of passengers permitted on board must be provided or such greater number as necessary to provide a lifejacket for each person smaller than the lower size limit of the adult lifejackets provided to meet this section; and

(ii) The engineroom, pilothouse, bow lookout, and each work station and industrial work site remotely located from the lifejackets carried under paragraph (a) of this section, must have enough lifejackets to equal the number of persons normally on watch in, or assigned to, the station at one time.

(2) Where, due to the particular arrangements of the vessel, the lifejackets under paragraph (a)(1) of this section could become inaccessible, the OCMI may require an increase in the number of lifejackets to be carried, or suitable alternative arrangements.

(b) *Services other than ocean or short international voyage.* Notwithstanding the requirements of paragraph (a) of this section, on a vessel not in ocean or short international voyage service—

(1) A lifejacket is not required at a watch or work station for a person whose cabin, stateroom, or berthing area (and the lifejackets stowed in that location) is readily accessible to the watch or work station; and

(2) Child-size lifejackets are not required if the vessel does not carry persons smaller than the lower size limit of the adult lifejackets.

(c) *Great Lakes service.* Each vessel of 3000 tons gross tonnage and over in Great Lakes service, having forward berthing or working spaces widely separated from messing or recreational spaces aft, must carry lifejackets in addition to those required under paragraph (a) of this section, sufficient for 50 percent of the number of persons permitted on board.

§ 199.73 Rescue boat immersion suits: ocean, short international voyage, coastwise, or Great Lakes service.

On each vessel with a rescue boat in ocean, short international voyage, coastwise, or Great Lakes service, an immersion suit of appropriate size must be provided for each person assigned to the rescue boat crew.

§ 199.75 Lights for lifejackets and immersion suits: ocean, short international voyage, coastwise, or Great Lakes service.

(a) Each lifejacket and each immersion suit carried on a vessel engaged in ocean, short international voyage, coastwise, or Great Lakes service, must have a lifejacket light securely attached to the front shoulder area of the lifejacket or immersion suit. The lifejacket light must be approved by the Commandant (G-MVI) as meeting—

(1) For a vessel in ocean service, Subpart 161.012 of this Chapter, Regulation III/30.2 of SOLAS 74/83, and Regulation III/32.3 of SOLAS 74/83; or

(2) For a vessel in short international voyage, coastwise, or Great Lakes service, Subpart 161.012 of this Chapter.

(b) Until July 1, 1991, a lifejacket light on a vessel in ocean service built before July 1, 1986 is not required to be approved by the Commandant (G-MVI) as meeting Regulations III/30.2 and III/32.3 of SOLAS 74/83, if the light is approved under Subpart 161.012 of this chapter, and is in good and serviceable condition.

§ 199.76 Whistles for lifejackets and immersion suits: ocean or short international voyage service.

Each lifejacket and each immersion suit carried on a vessel engaged in ocean or short international voyage service must have a whistle of the ball type or multi-tone type, of corrosion-resistant construction, and in good working order.

(a) The whistle must be attached to the lifejacket or immersion suit by a lanyard without hooks, snaps, clips, etc. The lanyard must be long enough to

permit the whistle to reach the mouth of the wearer.

(b) If the lanyard allows the whistle to hang below the waist of the wearer, the whistle must be stowed in a pocket on the lifejacket or immersion suit, or be stowed with the lanyard coiled and stopped off.

§ 199.78 Stowage of lifejackets and immersion suits.

(a) *General.* Unless otherwise stated in this section, lifejackets and immersion suits must be distributed throughout the cabins, staterooms, berthings, and other places convenient for each person permitted on board.

(1) Each stowage container for lifejackets or immersion suits must not be capable of being locked.

(2) Each lifejacket and immersion suit kept in a stowage container must be readily available.

(3) Each lifejacket and immersion suit stowed overhead must be supported in a manner that allows quick release for distribution.

(4) If lifejackets or immersion suits are stowed more than 2.1 m (7 ft.) above the deck, a means for quick release must be provided and must be capable of operation by a person standing on the deck.

(5) Each child size lifejacket and child size immersion suit must be stowed in a location which is appropriately marked and separated from adult size devices, so that child size devices are not mistaken for adult size devices.

(b) *Rescue boat immersion suits: ocean, short international voyage, coastwise, or Great Lakes service.* The immersion suits required under § 199.73 must be stowed near the rescue boat, or in some other location readily accessible to the rescue boat crew.

(c) *Lifejackets for engine room, pilothouse, bow lookout, and work stations and industrial work sites.* The additional lifejackets required under § 199.72(a)(1)(ii) must be stowed in places readily accessible to the locations specified in that section.

(d) *Great Lakes service.* The lifejackets required under § 199.72(c) must be stowed in the vicinity of the muster or embarkation stations.

§ 199.80 Station bill (muster list) and emergency instructions.

This section applies to each passenger vessel and each other vessel 500 tons gross tonnage and over. Clear instructions to be followed in the event of an emergency must be provided for each person on board.

(a) Identical station bills (muster lists) must be exhibited in conspicuous places throughout the vessel including the

navigating bridge, engine room and crew accommodation spaces. The station bill must be prepared and posted before the vessel begins its voyage. After the station bill has been prepared, if any change takes place that necessitates an alteration in the station bill, the master must either revise the station bill or prepare a new one. Each station bill must—

(1) Give instructions for operating the general alarm system required under Subpart 113.25 of this chapter;

(2) Identify the emergency signals;

(3) Specify the action to be taken by crew and passengers when each signal is sounded;

(4) Specify how the order to abandon the vessel will be given;

(5) Specify the survival craft each person on board is assigned to;

(6) Specify the officers that are assigned to make sure that lifesaving and fire fighting appliances are maintained in good condition and are ready for immediate use;

(7) Show the duties assigned to the different members of the crew including—

(i) Persons in command and the chain of command;

(ii) Closing of the watertight doors, fire doors, valves, scuppers, sidescuttles, skylights, portholes and other similar openings in the vessel's hull;

(iii) The stopping of fans and ventilating systems;

(iv) Equipping the survival craft and other lifesaving appliances;

(v) Preparation and launching of survival craft;

(vi) General preparations of other lifesaving appliances;

(vii) Muster of passengers and other persons in addition to the crew;

(viii) Use of communication equipment;

(ix) Responsibility for the portable radio apparatus;

(x) Manning of the rescue boats for rescuing persons overboard and other emergencies requiring the use of the rescue boat;

(xi) Manning of emergency squad assigned to deal with fires and other emergencies;

(xii) Administration of first-aid;

(xiii) Special duties assigned with respect to the use of fire-fighting equipment and installations; and

(xiv) Such other duties as are necessary for the proper handling of the vessel in an emergency;

(8) Show the duties assigned to members of the crew, generally from the steward's department, in relation to passengers in case of emergency, including—

(i) Warning the passengers;

(ii) Seeing that passengers are suitably dressed and have donned their lifejackets or immersion suits correctly;

(iii) Assembling passengers at muster stations;

(iv) Keeping order in the passageways and on the stairways and generally controlling the movements of the passengers;

(v) Making sure that a supply of blankets is taken to the survival craft;

(9) Specify substitutes for key persons if they are disabled, taking into account that different emergencies require different actions; and

(10) Be at least poster size [600 mm (24 in.) x 750 mm (30 in.)].

(b) Illustrations and instructions in English and any other appropriate language must be posted in each passenger cabin and be conspicuously displayed at each muster station and other passenger spaces to inform passengers of—

(1) The fire and emergency signal;

(2) The abandon-ship signal;

(3) Their muster station;

(4) The essential actions they must take in an emergency;

(5) The location of lifejackets, including child size lifejackets;

(6) Fully illustrated instructions on the method of donning lifejackets;

(7) If immersion suits are provided for passengers, the location of the immersion suits, including child size immersion suits; and

(8) If immersion suits are provided for passengers, fully illustrated instructions on the method of donning immersion suits.

(c) Each vessel equipped with inflatable liferafts must have the manufacturer's approved launching and inflating instruction placards posted in conspicuous places readily available to the crew and passengers. The number and location of the placards must be accepted by the OCMI.

(d) Each vessel equipped with immersion suits must have the manufacturer's approved donning and use instruction placards posted in conspicuous places readily available to the crew. The number and location of the placards must be accepted by the OCMI.

§ 199.90 Operating instructions.

Posters or signs must be on or in the vicinity of each survival craft and its launching controls and must—

(a) Illustrate the purpose of controls;

(b) Illustrate the procedures for operating the launching device;

(c) Give relevant instructions or warnings;

(d) Be easily seen under emergency lighting conditions; and

(e) Use symbols in accordance with IMO recommendation A.603(15).

§ 199.110 Survival craft muster and embarkation arrangements.

(a) One or more muster stations must be close to each embarkation station. Each muster station must have sufficient space to accommodate all persons assigned to muster at that station. An embarkation station may serve as a muster station if there is sufficient space to accommodate all persons assigned to muster at that station.

(b) Each muster station and embarkation station must be readily accessible from accommodation and work areas.

(c) Each muster station and embarkation station for a survival craft which is boarded before it is launched, must be arranged to enable stretcher cases to be placed in the survival craft.

(d) Each embarkation station must be located where it is not necessary to climb up more than three steps on stairs or a ladder, or climb over obstructions to—

(1) Reach the embarkation station from the adjacent deck house; and

(2) Board the survival craft from the embarkation station.

(e) An embarkation ladder must be at each launching station or at each two adjacent launching stations. Each embarkation ladder must be approved by the Commandant (G-MVI) as meeting Subpart 160.017 of this Chapter, Regulation III/30.2 of SOLAS 74/83, and Regulation III/48.7 of SOLAS 74/83.

(1) Each ladder must extend in a single length, from the deck to the waterline in the lightest seagoing condition under unfavorable conditions of trim and with the vessel listed up to 15° either way.

(2) Each ladder must be secured to the deck and stowed ready to be put over the side and used.

(3) Handholds must be provided to allow safe passage between the deck and the head of the ladder.

(4) The OCMI may permit an embarkation ladder to be replaced by a device approved by the Commandant (G-MVI) to provide safe and rapid access to survival craft in the water, provided that there is at least one embarkation ladder on each side of the vessel.

(5) The OCMI may permit other safe and effective means of embarkation for a liferaft required under § 199.261(h).

(6) An embarkation ladder is not required if—

(i) The distance from the embarkation deck to the vessel's lightest operating waterline is less than 3 m (10 ft.); and

(ii) The vessel is not in ocean or short international voyage service.

(f) Means must be provided for bringing each davit-launched survival craft against the side of the vessel and holding it alongside to allow persons to be—

(1) Safely embarked in the case of a survival craft intended to be boarded over the edge of the deck; and

(2) Safely disembarked after a drill in the case of a survival craft not intended to be moved to the stowed position with a full complement of persons on board.

(g) Each davit-launched liferaft launching arrangement must have a means to hold the liferaft in the embarkation position that—

(1) Will hold the liferaft securely in high winds;

(2) Can be rapidly engaged by hooks, clips, or a similar arrangement that does not require lashing, tying, adjustment, or separate tools; and

(3) Can be rapidly released for launching by one person from within the loaded liferaft in not more than two separate motions.

§ 199.120 Launching stations.

(a) Each launching station must be positioned to ensure safe launching considering in particular clearance from—

(1) The propeller; and

(2) Steeply overhanging portions of the hull.

(b) As far as possible, survival craft must be launched down the straight side of the vessel, except for survival craft for free-fall launching.

(c) Each launching station in the forward part of the vessel must—

(1) Be located aft of the collision bulkhead in a sheltered position; and

(2) Have a launching appliance approved by the Commandant (G-MVI) as being of sufficient strength for forward installation.

§ 199.130 Stowage of survival craft.

(a) *General.* Each survival craft required to have a launching appliance, must be stowed as close to accommodation and service spaces as possible.

(1) Each survival craft must be stowed—

(i) In a way that neither the survival craft nor its stowage arrangements will interfere with the embarkation and operation of any other survival craft or rescue boat at any other launching station;

(ii) As near the water surface as is safe and practicable, except as provided

in paragraphs (a)(1)(iii) and (d) of this section;

(iii) Where the survival craft in the embarkation position is above the waterline with the vessel—

(A) In the fully loaded condition;

(B) Under unfavorable conditions of trim; and

(C) Listed up to 20° either way, or to the angle where the vessel's weatherdeck edge becomes submerged, whichever is less;

(iv) In a way that the crew can gain access to prepare the survival craft for launching;

(v) Sufficiently ready for use so that two crew members can complete preparations for embarkation and launching in less than 5 min;

(vi) Fully equipped as required under this subchapter; and

(vii) As far as practicable, in a secure and sheltered position and protected from damage by fire and explosion.

(2) With the exception of survival craft not over 185 kg (407.8 lb.), a survival craft must not require lifting from its stowed position in order to launch.

(i) If lifting is required for a survival craft not over 185 kg, it must not be greater than 300 mm (1 ft.).

(ii) The prohibition on lifting does not apply to a davit-launched liferaft lifted by a manually powered winch from its stowed position to its embarkation position.

(3) Each vessel operating in an area where icing is likely to be encountered, must provide each exposed winch mechanism with a fabric cover, or equivalent, so that ice may be readily broken away to operate the winch.

(b) *Stowage position: ocean, short international voyage, or coastwise service.* Each vessel in ocean, short international voyage or coastwise service having widely separated accommodation and service spaces, must have survival craft of each type required on the vessel as close as possible to each such space to serve those persons normally in that space. The capacity and arrangement of the survival craft for each such space must be as if each space were a separate vessel.

(c) *Stowage position: Great Lakes; lakes, bays, and sounds; or river service.* Each vessel in Great Lakes; lakes, bays, and sounds; or river service having widely separated accommodation and service spaces, must either have—

(1) Survival craft arranged as required under paragraph (b) of this section, or

(2) Survival craft stowed as close as possible to the accommodation and

service space that normally holds the greatest number of persons, with liferafts stowed as close as possible to each other accommodation and service space of sufficient capacity to accommodate 50% of the persons permitted on board.

(d) *Stowage and embarkation position: ocean, short international voyage, coastwise, or Great Lakes services.* On each vessel in ocean, short international voyage, coastwise, or Great Lakes services, each survival craft served by a launching appliance must be stowed in a position where the survival craft in the embarkation position is not less than 2 m (79 in.) above the waterline under the conditions described under paragraph (a)(1)(iii) of this section.

§ 199.133 Stowage of lifeboats.

In addition to meeting § 199.130, each lifeboat must be stowed as required under this section.

(a) Each lifeboat for lowering down the side of the vessel must be stowed as far forward of the propeller as practicable. The vessel must be arranged so each lifeboat, in its stowed position, is protected from damage by heavy seas.

(b) Each lifeboat must be stowed attached to its launching appliance.

(c) Means must be provided for recharging lifeboat batteries from the vessel's power supply at a supply voltage not exceeding 55 V.

§ 199.135 Stowage of liferafts and inflatable buoyant apparatus.

In addition to meeting § 199.130, each liferaft and inflatable buoyant apparatus must be stowed as required under this section.

(a) Each liferaft and inflatable buoyant apparatus must be stowed to permit manual release from its securing arrangements, and to permit it to be dropped into the water from the deck on which it is stowed.

(b) Each liferaft and inflatable buoyant apparatus must be stowed at a height above the waterline in the lightest seagoing condition not greater than the maximum stowage height indicated on the liferaft, or on the container of an inflatable liferaft or inflatable buoyant apparatus. Each liferaft and inflatable buoyant apparatus without an indicated maximum stowage height must be stowed no more than 18 m (59 ft.) above the waterline in the lightest seagoing condition.

(c) A gate or other suitable opening must be provided in the rail or bulwark adjacent to the stowage location of each liferaft and inflatable buoyant apparatus, not served by a launching

appliance. Alternatively, the liferaft or inflatable buoyant apparatus may be mounted on stanchions or a platform adjacent to the rail or bulwark to allow the liferaft or inflatable buoyant apparatus to be pushed directly overboard.

(1) Each gate or opening must be large enough to allow the liferaft or inflatable buoyant apparatus to be pushed overboard.

(2) If the liferaft or inflatable buoyant apparatus is intended to be available for use on either side of the vessel, a gate or opening must be provided on each side.

(d) Each davit-launched liferaft must be stowed within reach of its lifting hook, unless some means of transfer is provided that is not rendered inoperable—

(1) Within the limits of trim and list under § 199.130(a)(1);

(2) By vessel motion; or

(3) By power failure.

(e) Each rigid container for an inflatable liferaft to be launched by a launching appliance must be secured in a way that the container or parts of it are prevented from falling into the sea during and after inflation and launching of the contained liferaft.

(f) Each liferaft and inflatable buoyant apparatus arranged for float-free launching must use a hydrostatic release unit approved by the Commandant (G-MVI) as meeting Subpart 160.062 of this Chapter, Regulation III/30.2 of SOLAS 74/83, and Regulation III/38.6.3 of SOLAS 74/83. The hydrostatic release unit must be arranged so that—

(1) The liferaft or inflatable buoyant apparatus, and its painter are secured to the vessel by the hydrostatic release unit;

(2) When the liferaft or inflatable buoyant apparatus is manually released, the painter remains secured to the vessel through the hydrostatic release unit; and

(3) When the hydrostatic release unit opens in the water under hydrostatic pressure, the painter remains secured to the vessel through its weak link.

§ 199.137 Stowage of life floats and buoyant apparatus.

In addition to meeting § 199.130, each life float and buoyant apparatus must be stowed as required under this section. Each life float and buoyant apparatus must be secured to the vessel by a painter and a float-free link.

(a) The float-free link must be—

(1) Certified to meet Subpart 160.073 of this chapter;

(2) Of proper strength for the size of the life float or buoyant apparatus as indicated on its identification tag; and

(3) Secured to the painter at one end and to the vessel on the other end.

(b) The means used to attach the float-free link to the vessel must—

(1) Have a breaking strength of at least the breaking strength of the painter;

(2) If synthetic, be of a dark color or of a type certified to be resistant to deterioration from ultraviolet light; and

(3) If metal, be corrosion resistant.

(c) If the life float or buoyant apparatus does not have a painter attachment fitting, a means for attaching the painter must be provided by a wire or line that—

(1) Encircles the body of the device;

(2) Will not slip off;

(3) Has a breaking strength that is at least the strength of the painter; and

(4) If synthetic, is of a dark color or is of a type certified to be resistant to deterioration from ultraviolet light.

(d) The float-free link described under paragraphs (a) and (b) of this section is not required if the waters in which the vessel is certificated to operate are not as deep as the length of the painter.

(e) If the vessel carries more than one life float or buoyant apparatus in a group with each group secured by a single painter,—

(1) The combined weight of each group of life floats and buoyant apparatus must not exceed 185 kg (407.8 lb.);

(2) Each life float and buoyant apparatus must be individually attached to the painter by a line meeting § 199.175(d)(4) and long enough that each life float or buoyant apparatus can float without contacting any other life float or buoyant apparatus in the group; and

(3) The strength of the float-free link under paragraph (a)(2) of this section and the strength of the painter under § 199.175(d)(4)(ii) must be determined by the combined capacity of the group of life floats and buoyant apparatus.

(f) Life floats and buoyant apparatus must not be secured to the vessel except by the painter and by lashings that can be easily released or by a hydrostatic release unit approved under Subpart 160.062 of this chapter. They must not be stowed in more than four tiers. When stowed in tiers, the separate units must be kept apart by spacers.

(g) There must be means to prevent shifting.

§ 199.140 Stowage of rescue boats.

(a) Each rescue boat must be stowed—

(1) Ready for launching in not more than 5 min;

(2) In a position suitable for launching and recovery;

(3) In a way that neither the rescue boat nor its stowage arrangements will interfere with the operation of any survival craft at any other launching station; and

(4) If it is also a lifeboat, in compliance with §§ 199.130 and 199.133.

(b) Means must be provided for recharging rescue boat batteries from the vessel's power supply at a supply voltage not exceeding 55 V.

(c) Each inflated rescue boat must be kept fully inflated at all times.

§ 199.150 Survival craft launching and recovery arrangements: general.

(a) A launching appliance approved by the Commandant (G-MVI) as meeting Regulation III/30.2 of SOLAS 74/83, Regulation III/48.1 of SOLAS 74/83, and either Regulation III/48.2, III/48.4, III/48.5, or III/48.6 of SOLAS 74/83, must be provided for each survival craft except that a launching appliance is not required for the following:

(1) A survival craft boarded from a position on deck less than 4.5 m (14 ft., 9 in.) above the waterline in the lightest seagoing condition and that either—

(i) has a mass of not more than 185 kg (407.8 lb.); or

(ii) is stowed for launching directly from the stowed position under unfavorable conditions of trim of up to 10° and with the vessel listed up to 20° either way.

(2) A survival craft having a mass of not more than 185 kg (407.8 lb.) and carried in excess of the survival craft for 200% of the total number of persons permitted on board the vessel.

(b) Each launching appliance together with all its lowering and recovery gear must be arranged in a way that the fully equipped survival craft it serves can be safely lowered when loaded with its full complement of persons, and also without persons, against a trim of up to 10° and—

(1) A list of up to 20° on the high side; and

(2) A list of up to 20° or the degree of list where the survival craft becomes waterborne, whichever is the greater, on the low side.

(c) A launching appliance must not depend on any means other than gravity or stored mechanical power independent of the vessel's power supplies to launch the survival craft it serves in the fully loaded and equipped condition and also in the light condition.

(d) The ultimate strength of each structural attachment to the vessel of a davit, winch, or other launching appliance, must be at least 4.5 times the load imparted on the attachment by the

launching appliance and its fully loaded survival craft under the most adverse combination of list and trim under paragraph (b) of this section.

(e) The same type of release mechanism must be used for each similar survival craft carried on board the vessel. For the purpose of this requirement, a release mechanism is of the same type as another release mechanism if both are operated in the same way.

(f) Preparation and handling of survival craft at any one launching station must not interfere with the prompt preparation and handling of any other survival craft at any other station.

(g) The arrangement of each launching appliance must enable safe, rapid boarding of the survival craft.

(h) Each launching mechanism must be arranged so it may be actuated by one person from a position on the vessel's deck, and also from a position within the survival craft. Each launching and recovery arrangement must allow the operator on the deck to observe the survival craft at all times during launching.

(i) Means must be provided outside the machinery space to prevent any discharge of fluids onto survival craft during abandonment. Acceptable means include—

(1) Baffles to deflect fluid down the vessel's side;

(2) Reach rods or other means to close the discharge openings; or

(3) Remote means for stopping the pumps.

(j) If there is a danger of the survival craft being damaged by the vessel's stabilizer wings, the stabilizer wings must be able to be brought inboard using power from the emergency power system required under Part 112 of this chapter. Indicators operated by the emergency power system must be on the navigating bridge to show the position of the stabilizer wings.

§ 199.153 Survival craft launching and recovery arrangements using falls and a winch.

(a) Each launching appliance using falls and a winch must be approved by the Commandant (G-MVI) as meeting Regulations III/30.2, III/48.1, and III/48.2 of SOLAS 74/83; and either—

(1) For a lifeboat, Subparts 160.015 and 160.032 of this chapter; or

(2) For a davit-launched liferaft, Subpart 160.063 of this chapter with an automatic disengaging apparatus meeting Subpart 160.070 of this chapter.

(b) Each fall wire used in a launching appliance must be of rotation-resistant, corrosion-resistant, pre-lubricated steel wire rope.

(1) For the purposes of this requirement, galvanized wire rope is considered to be corrosion-resistant.

(2) The breaking strength of each fall wire and each attachment used on the fall must be at least six times the load imparted on the fall by the fully-loaded survival craft.

(3) Each replacement fall wire must be the same as that approved for use with the launching appliance.

(c) Each fall must be in a single-part arrangement.

(d) Each fall must be long enough for the survival craft to reach the water with the vessel in its lightest seagoing condition, under unfavorable conditions of trim and with the vessel listed up to 20° either way.

(e) Each fall must be arranged to lead fair in each davit position. Falls must not lead past any operating position of the winch, such as hand cranks, pay-out wheels, and brake levers.

(f) The lead sheave to each winch drum must be located to result in a maximum fleet angle of not more than 8°.

(g) Each winch drum must be arranged so the fall wire winds onto the drum in a level wrap.

(1) The winch drum of a launching appliance must be of such size that there will be no more than two layers of wire on the drum, provided that the maximum fleet angle is not more than 4°.

(2) Each winch drum of a launching appliance that has a maximum fleet angle of more than 4° must be of such size that there will be no more than one layer of wire on the drum.

(h) Each fall, where exposed to damage or fouling, must have guards or equivalent protection. Each fall which leads along a deck must be covered with a guard which is not more than 300 mm (1 ft.) above the deck.

(i) The lowering speed for a fully loaded survival craft must be not less than that obtained from the formula;

$$S = 0.4 + (0.02 H);$$

where S is the speed of lowering in meters per second, and H is the height in meters from davit head to the waterline at the lightest seagoing condition. For the purposes of this calculation, H shall not be greater than 30, regardless of the lowering height. (In English units, the formula is $S = 79 + (1.2 H)$, where S is in ft./min. and H is in ft., with H not greater than 99.)

(j) The lowering speed for a survival craft loaded with all of its equipment, but only one person, must be not less than 70% of the speed required under paragraph (i) of this section.

(k) The lowering speed for a fully loaded survival craft must be not more than 1.3 m/sec. (256 ft./min.).

(l) If a survival craft is recovered by electric power, the electrical installation must meet Part 111 of chapter, including the requirements in Subpart 111.95 on electric power-operated boat winches. If a survival craft is recovered by any means of power, including a portable power source, a limit switch or equivalent safety device must be provided on each fall that—

(1) Is located in either the power or control circuit;

(2) Is connected in series with each other switch or equivalent device on the launching appliance;

(3) Automatically cuts off all power in the circuit in which the switch or equivalent device is located before the survival craft reaches the fully stowed position;

(4) Stops recovery of the survival craft under power at least 300 mm (12 in.) from the final stowed position; and

(5) Keeps power disconnected as the survival craft is manually brought to the stowed position.

§ 199.155 Survival craft launching and recovery arrangements: other devices

Each marine escape slide must be capable of being deployed by one person at the embarkation station. Notwithstanding the requirements under § 199.150(h), a marine escape slide is not required to be actuated from a position within the survival craft.

§ 199.157 Lifeboat launching and recovery arrangements.

(a) Each lifeboat must be capable of being launched with the vessel making headway of 5 knots in calm water. A painter may be used to meet this requirement.

(b) Each lifeboat launching appliance must be capable of recovering the lifeboat with its crew.

(c) Each launching and recovery arrangement must allow the operator on the vessel to observe the lifeboat at all times during recovery.

(d) For each open lifeboat and partially enclosed lifeboat, a davit span must be provided with not less than two lifelines of sufficient length to reach the water with the vessel in its lightest seagoing condition, under unfavorable conditions of trim and with the vessel listed up to 20° either way.

§ 199.160 Rescue boat embarkation, launching and recovery arrangements.

Each rescue boat embarkation and launching arrangement must permit the rescue boat to be boarded and launched in the shortest possible time.

(a) If the rescue boat is one of the vessel's survival craft, the embarkation arrangements and launching station must meet §§ 199.110 and 199.120.

(b) If a workboat or launch is used in place of a rescue boat, the stowage, embarkation, launching, and recovery arrangements must meet the requirements of this section.

(c) The rescue boat launching arrangements must meet the requirements for lifeboat launching arrangements in § 199.150 and § 199.157, and if the launching arrangement uses falls and a winch, § 199.153. If the launching arrangement uses a single fall, the release mechanism may be an automatic disengaging apparatus approved by the Commandant (G-MVI) as meeting Subpart 160.070 of this chapter, instead of a lifeboat release mechanism.

(d) Rapid recovery of the rescue boat must be possible when loaded with its full complement of persons and equipment. If the rescue boat is also a lifeboat, rapid recovery must be possible when loaded with its lifeboat equipment and an approved rescue boat complement of at least six persons. Each rescue boat launching appliance must be capable of hoisting the rescue boat when loaded with its full rescue boat complement of persons and equipment at a rate of not less than 0.3 m/sec. (59 ft./min.).

§ 199.170 Line-throwing appliance: ocean, short international voyage, or coastwise service.

(a) Each of the following vessels must carry a line-throwing appliance approved under Subpart 160.040 of this chapter:

(1) Each passenger vessel in ocean or short international voyage service.

(2) Each vessel 500 tons gross tonnage and over, other than a passenger vessel, in ocean service.

(b) Each vessel in ocean or coastwise service, not covered under paragraph (a) of this section, must carry either—

(1) A line-throwing appliance approved under Subpart 160.040 of this chapter; or

(2) A line-throwing appliance approved under Subpart 160.031 of this chapter.

(c) Each line throwing appliance required to be carried under this section, must also have the equipment on the list provided with the approved appliance.

(d) Each line throwing appliance required to be carried under this section, must also have an auxiliary line that—

(1) If manila, is 75 mm (3 in.) or more in circumference;

(2) If other than manila, has a breaking strength of at least 40 kN (9,000 lb.);

(3) If other than manila, is of a dark color or of a type certified to be resistant to deterioration from ultraviolet light;

(4) If provided for a line throwing appliance approved under Subpart 160.040 of this chapter, is at least 450 m (1,500 ft.) long; and

(5) If provided for a line throwing appliance approved under Subpart 160.031 of this chapter, is at least 150 m (500 ft.) long.

(e) The line throwing appliance and its equipment must be readily accessible for use, stowed in—

(1) Its container carried within the pilothouse or on the navigating bridge; or

(2) The portable magazine chest under § 199.68(d)(2) of this chapter.

§ 199.175 Survival craft and rescue boat equipment.

(a) *General.* Each item of survival craft and rescue boat equipment must be good quality, and suitable for the purpose it is intended to serve. Unless otherwise stated in this section, each item of equipment carried, whether required under this section or not, must be secured by lashings, stored in lockers, compartments, brackets, or have equivalent mounting or storage arrangements that do not—

(1) Reduce seating capacity;

(2) Interfere with launching, recovery, or rescue operations;

(3) Adversely affect seaworthiness of the survival craft or rescue boat; or

(4) Overload the launching appliance.

(b) *Inflatable liferafts.* Each inflatable liferaft must have one of the following equipment packs as shown by the markings on its container:

(1) "SOLAS A Pack" on a vessel in ocean service.

(2) Either "SOLAS A Pack" or "SOLAS B Pack" on a vessel in short international voyage service or coastwise service.

(3) "SOLAS A Pack", "SOLAS B Pack", or "Limited Service" on a vessel in a service other than ocean, short international voyage, or coastwise service.

(c) *Liferafts, rigid liferafts, and rescue boats.* Unless otherwise stated in this paragraph, each lifeboat, each rigid liferaft, and each rescue boat must carry the equipment specified for it in Table 199.175(c) under the vessel's category of service. A lifeboat that is also a rescue boat must carry the equipment in the "lifeboat" column. Each rigid liferaft equipped as required under the "Ocean"

column must be permanently marked "SOLAS A Pack" in block letters at least 25 mm (1 in.) high. Each rigid liferaft equipped as required under the "Short International Voyage and Coastwise" column must be permanently marked "SOLAS B Pack" in block letters at least 25 mm (1 in.) high. Each item in the table is described below along with any exceptions or limitations, with the paragraph number corresponding to the item number in the table.

(1) [Reserved]

(2) *Bailer*. The bailer must be buoyant, except for a bailer with a lanyard used in the lifeboat or rescue boat before July 1, 1986 and continued in use thereafter.

(3) *Bilge pump*. The bilge pump must be approved under Subpart 160.044 of this chapter and must be installed in the lifeboat in a ready-to-use condition.

(i) The bilge pump for a lifeboat approved for less than 70 persons must be either size 2 or size 3, except for a size 1 bilge pump used in a lifeboat of less than 330 cubic foot capacity before July 1, 1986 and continued in use thereafter.

(ii) The bilge pump for a lifeboat approved for 70 persons or more must be size 3.

(4) *Boathook*. Each boathook must be kept free and ready for use at all times. Each boathook in a lifeboat and a rigid rescue boat must have a single hook and ball-point. The boathook in an inflated or rigid/inflated rescue boat must be a type designed to minimize the possibility of damage to the fabric portions of the hull. The handle of each boathook must be—

(i) Of clear-grained white ash or the equivalent;

(ii) At least 38 mm (1½ in.) in diameter;

(iii) At least 2.4 m (8 ft.) long for a boat less than 8.8 m (29 ft.) in length; and

(iv) At least 3.6 m (12 ft.) long for a boat 8.8 m (29 ft.) or more in length.

(5) *Bucket*. Each bucket must be of corrosion-resistant material with a capacity of at least 7.5 liters (2 U.S. gallons). A lanyard of a minimum diameter of 4 mm (5/16 in.) and at least 1.8 m (6 ft.) long must be attached to the bail.

(6) *Can opener*. Each can opener must be suitable for opening the cans carried in the lifeboat or liferaft. The can opener in a jackknife approved under Subpart 160.043 of this chapter counts toward this requirement.

(7) *Compass*. The compass and its mounting arrangement must be approved by the Commandant (G-MVI). In a totally enclosed lifeboat and in a rescue boat, the binnacle must be permanently installed at the steering

position. In any other lifeboat, either the binnacle must be permanently installed at the steering position, or the mounting base for a removable compass must be permanently installed in a location where the compass will be in sight of the helmsman.

(8) *Cover, protecting*. The protecting cover for an open lifeboat must be approved by the Commandant (G-MVI). The protecting cover for a partially enclosed lifeboat is approved as a component of the lifeboat.

(9) *Dipper*. Each dipper must be of corrosion-resistant construction, attached to a lanyard at least 0.9 m (3 ft.) long. The dipper must be suitable for dipping collected rainwater from the lifeboat's water tanks.

(10) *Ditty bag*. The ditty bag must be canvas or equivalent material, and must contain a sailmaker's palm, needles for repairing a sail, sail twine, marline, and marline spike.

(11) *Drinking cup*. The drinking cup must be—

(i) Of corrosion resistant material;

(ii) Graduated in ounces or milliliters or both; and

(iii) Provided with a lanyard of a minimum diameter of 4 mm (5/16 in.) and at least 0.9 m (3 ft.) long.

(12) *EPIRB/SART*. A Class S EPIRB, a Category 2 Satellite EPIRB, or a SART must be mounted in a position in the boat where it is ready to be used.

(i) The Class S EPIRB must be a type which meets the regulations of the Federal Communications Commission at 47 CFR 80.1059.

(ii) The Category 2 Satellite EPIRB must be a type which meets the regulations of the Federal Communications Commission at 47 CFR 80.1061 (See 53 FR 37308 of September 26, 1988).

(iii) The SART must be a radar transponder which meets the regulations of the Federal Communications Commission at 47 CFR 80.375(e) and IMO Resolution A.604(15).

(13) *Fire extinguisher*. Each fire extinguisher must be approved under Subpart 162.028 of this chapter. Each fire extinguisher must be Type B-C, Size I or larger.

(14) *First-aid kit*. The first-aid kit in a lifeboat and in a rescue boat must be approved under Subpart 160.041 of this chapter. The first-aid kit in a rigid liferaft must be approved under Subpart 160.054 of this chapter.

(15) *Fishing kit*. The fishing kit must be approved under Subpart 160.061 of this chapter.

(16) *Flashlight*. The flashlight must be a Type I or Type III constructed and marked in accordance with ASTM F1014. Three spare batteries and two

spare bulbs, stored in a watertight container, must be provided for each flashlight. Three-cell size flashlights bearing Coast Guard approval numbers in the 160.018 series may continue to be used as long as they are in a serviceable condition.

(17) *Hatchet*. Each hatchet must be approved under Subpart 160.013 of this chapter. A lanyard of a minimum diameter of 4 mm (5/16 in.) must secure each hatchet to the lifeboat. The lanyard must be long enough to allow a hatchet to reach the falls and the painter.

(i) Where one hatchet is required, it must be stowed in a bracket near a release hook.

(ii) When two hatchets are required and the boat has two release hooks, there must be a hatchet stowed in a bracket near each release hook.

(iii) When two hatchets are required and the boat has one release hook, there must be a hatchet stowed in a bracket near the release hook and one stowed in a bracket near the towing point.

(18) *Heaving line*. Each heaving line must—

(i) Be buoyant;

(ii) Be at least 8 mm (5/16 in.) in diameter;

(iii) Be at least 30 m (99 ft.) long; and

(iv) Have a buoyant rescue quito attached to one end.

(19) *Instruction card*. The instruction card must be printed on waterproof plastic, and must be suspended from the inside canopy. The instruction card must contain information on the immediate steps to be taken by survivors upon entering the liferaft.

(20) *Jackknife*. The jackknife must be approved under Subpart 160.043 of this chapter, and must be attached to the boat by its lanyard.

(21) *Knife*. The knife must be of the non-folding type with a buoyant handle.

(i) The knife for a rigid liferaft must be secured to the raft by a lanyard attached and stowed in a pocket on the exterior of the canopy near the point where the painter is attached to the liferaft. The lanyard must be long enough to permit the knife to be used to cut the painter. If an approved jackknife is substituted for the second knife required on a liferaft equipped for 13 or more persons, the jackknife must be secured to the liferaft by a lanyard.

(ii) The knife in an inflated or rigid/inflated rescue boat must be a type designed to minimize the possibility of damage to the fabric portions of the hull.

(22) *Ladder*. The boarding ladder must be capable of being used on either side of the boat to enable persons in the water to board the boat. The ladder must be a permanently installed rigid

type or a flexible ladder kept rigged outboard ready for use. Each flexible ladder must meet the following requirements:

- (i) The ladder must have flat steps with handhold openings in them.
- (ii) Each step must have a bare wood surface, or have a non-skid surface.
- (iii) The steps of the ladder must be spaced approximately 0.3 m (12 in.) apart.
- (iv) Each suspension member must be at least 15 mm ($5/16$ in.) diameter manila rope, or another material provided it is at least 15 mm in diameter and has a breaking strength of at least 17.6 kN (3,960 lb.). Synthetic rope must not be used unless it is ultraviolet light resistant, or is pigmented in a dark color.

(v) The lowest step of the ladder must be not less than 0.4 m ($15/16$ in.) below the lifeboat's light waterline.

(23) *Lantern.* Each open lifeboat must have a lantern containing sufficient oil to burn for at least 9 hours. The lantern must be kept ready for use. Each totally enclosed and partially enclosed lifeboat must have an operating interior lighting system that is approved as a component of the lifeboat.

(24) *Lifejacket.* Each lifejacket must be approved by the Commandant (G-MVI) as meeting Subpart 160.002, Subpart 160.005, or Subpart 160.055 of this Chapter. On each vessel in ocean, short international voyage, or coastwise service, each lifejacket must also be approved by the Commandant as meeting Regulations III/30.2 and III/32.1 of SOLAS 74/83.

(25) *Mast and sail.* The mast and sail unit must consist of one standing lug sail together with the necessary spars, rigging, and cover or storage container.

(i) The rigging must be at least 4.75 mm ($3/16$ in.) in diameter and must be either galvanized or stainless steel wire rope.

(ii) The sails must be of good quality canvas or other material acceptable to the Commandant (G-MVI), and international orange in color.

(26) *Matches.* Each box of matches must consist of at least 100 wooden friction matches with striking surface, in its own watertight container.

(27) *Signalling mirror.* Each signalling mirror must be approved by the Commandant (G-MVI).

(28) *Oars.* Each unit of oars must consist of sufficient buoyant oars or paddles to make headway in calm seas. An oarlock or equivalent device, either permanently installed or attached to the boat by a lanyard or chain, must be provided for each oar.

(i) Each lifeboat and rescue boat built after June 30, 1986 contains information

provided by the manufacturer on the number, size, and type of oars or paddles to meet this requirement.

(ii) Each lifeboat built before July 1, 1986 that does not contain information provided by the manufacturer on the number, size, and type of oars or paddles required to meet this requirement, must have the number, size, and type of oars as required in the regulations in effect for the vessel on June 30, 1986.

(iii) Each rescue boat built before July 1, 1986 that does not contain information provided by the manufacturer on the number, size, and type of oars or paddles required to meet this requirement, must carry two oars, if it is a rigid hull boat, or two paddles if it is an inflated hull boat.

(iv) A rescue boat meeting Subpart 160.056 of this chapter is not required to carry oars under paragraphs (c)(28)(i), (c)(28)(ii) or (c)(28)(iii) of this section, if the boat is equipped with a motor and carries two paddles.

(29) *Oil, illuminating.* A quantity of at least 0.94 liter (1 quart) of illuminating oil must be provided in a durable container in addition to the oil provided in the lantern.

(30) *Paddle.* Each paddle must be buoyant.

(31) *Painter.* If the painter is of synthetic material, it must be of a dark color or of a type certified to be resistant to deterioration from ultraviolet light.

(i) Each painter for a lifeboat and each painter for a rescue boat other than a rescue boat meeting Subpart 160.056 of this chapter, must be of a length equal to not less than three times the distance from the stowage position of the boat to the waterline in the lightest seagoing condition, or 15 m (50 ft.), whichever is the greater. Each painter must have a breaking strength of at least 34 kN (7,700 lb.).

(A) One painter on a lifeboat must be firmly secured at or near the bow ready for use.

(B) The painter on a rescue boat, and the second painter on a lifeboat, if one is required; must be attached by a painter release device at the forward end of the boat. The painter release device must be capable of quickly releasing the painter even when the painter is being used to tow the boat.

(ii) Each painter for a rescue boat meeting Subpart 160.056 of this chapter must be firmly secured at or near the bow ready for use. The painter must be—

- (A) At least 9 m (30 ft.) long;
- (B) At least 9.5 mm ($3/8$ in.) diameter; and

(C) Have a breaking strength of at least 5.5 kN (1,220 lb.).

(iii) The painter for a rigid liferaft must be of a length equal to not less than two times the distance from the stowage position of the liferaft to the waterline in the lightest seagoing condition or 15 m (50 ft.), whichever is the greater.

(A) The painter must have a breaking strength of not less than 13.3 kN (3,000 lb.) for liferafts approved for nine persons or more, and not less than 7.5 kN (1,687 lb.) for any other liferaft.

(B) A float-free link meeting Subpart 160.073 of this chapter must be secured to the end of the painter that is attached to the vessel. The breaking strength of the float-free link must be between 1800 N (400 lb.) and 2400 N (536 lb.).

(32) *Provisions.* Each unit of provisions must be approved by the Commandant (G-MVI) and must consist of not less than 10,000 kJ (2,390 Calories).

(33) *Pump.* The pump or bellows must be manually operated and arranged to be capable of inflating any part of the inflatable structure of the rescue boat.

(34) *Radar reflector.* A SART carried under paragraph (c)(12) of this section meets the requirement for a radar reflector. If the boat does not carry a SART, it must carry a radar reflector certified by its manufacturer to have an apparent cross sectional area of at least 1 m² (10.8 ft.²) over 65% of the horizontal plane, using a radar system operating in the 9300–9500 MHz band. The radar reflector must also have mounting provisions to install it on the boat in its proper orientation.

(35) *Rainwater collection device.* The rainwater collection device must—

(i) Be arranged to collect falling rain and direct it into the water tanks in the lifeboat;

(ii) Have a collection area of at least 1 m² (10.75 sq. ft.); and

(iii) Be arranged to function unattended after it has been set up.

(36) *Repair kit.* The repair kit for inflated and rigid/inflated rescue boats must contain at least—

- (i) Six sealing clamps;
- (ii) Five 50 mm (2 in.) diameter tube patches;
- (iii) Roughing tool; and
- (iv) Cement compatible with the tube fabric. The cement must have an expiration date on its container that is not more than 24 months after the date of manufacture of the cement.

(37) *Rudder and tiller.* The rudder and tiller must be as required in the regulations in effect for the vessel on June 30, 1986.

(38) *Sea anchor.* Each sea anchor must be approved by the Commandant (G-MVI) and have a shock-resistant hawser at least 10 m (33 ft.) long, and a tripping line that provides a firm hand grip when wet.

(i) Each open lifeboat required to have a sea anchor must also have at least 3.75 liters (1 U.S. gal.) of storm oil, consisting of vegetable, fish, or animal oil. The storm oil must be in a container suitable for attachment to the sea anchor and designed to distribute a controlled amount of oil on the water.

(ii) On each rigid liferaft, one sea anchor must be permanently attached to the liferaft in such a way that when the liferaft is waterborne, the sea anchor will cause the liferaft to lie oriented to the wind in the most stable manner. The second sea anchor must be stowed in the rigid liferaft as a spare. Each sea anchor on a rigid liferaft must be fitted with a swivel at each end of the line and must be of a type that is unlikely to turn inside-out between its shroud lines.

(39) **Searchlight.** Each searchlight must be certified by its manufacturer to meet ASTM F1003. The lifeboat must carry two spare bulbs.

(i) The searchlight must be permanently mounted on the canopy, or must have a stanchion type or collapsible type portable mounting on the canopy. The mounting must be located to enable operation of the searchlight by the boat operator.

(ii) The searchlight's power source must be capable of operating the light without charging or recharging, for not less than—

(A) 3 hours continuous operation; or

(B) 6 hours total "on" time in cycles consisting of 15 min. on and 5 min. off.

(iii) If the power source is an engine starting battery, there must be sufficient battery capacity to start the engine at the end of either operating period specified in paragraph (c)(39)(ii) of this section.

(iv) The power source must be connected to the searchlight using watertight electrical fittings meeting Subpart 111.75 of this chapter.

(40) *Seasickness kit.* Each seasickness kit must be packed in a waterproof package and must include one waterproof seasickness bag, anti-seasickness medication, and instructions for using the medication. In totally enclosed and partially enclosed lifeboats, each seasickness kit must be stowed within reach of the seat it is intended for. The anti-seasickness medication must be one of the following:

(i) Six doses of a combination of 25 mg of promethazine hydrochloride and 25 mg of ephedrine sulfate, to be taken at six-hour intervals.

(ii) A transdermal patch containing scopolamine suitable for at least 2 days use.

(41) *Signal, smoke.* Each orange smoke signal must be of the floating type approved by the Commandant (G-MVI) as meeting Subpart 160.022 of this Chapter, Regulation III/30.2 of SOLAS 74/83, and Regulation III/37 of SOLAS 74/83.

(42) *Signal, hand flare.* Each hand flare must be approved by the Commandant (G-MVI) as meeting Subpart 160.021 of this Chapter, Regulation III/30.2 of SOLAS 74/83, and Regulation III/36 of SOLAS 74/83.

(43) *Signal, rocket parachute flare.*
Each rocket parachute flare must be approved by the Commandant (G-MVI) as meeting Subpart 160.036 of this Chapter, Regulation III/30.2 of SOLAS 74/83, and Regulation III/35 of SOLAS 74/83.

(44) *Skates and fenders.* The skates and fenders must be as specified by the lifeboat manufacturer to facilitate launching and prevent damage to a lifeboat intended for launching down the side of a vessel.

(45) *Sponges*. Each sponge must have a volume of at least 1000 cm³ (62 in.³) when fully expanded.

(46) *Survival instructions.* The survival instructions must be in the form of a manual printed on waterproof paper or plastic. The manual must describe the lifeboat or rigid liferaft and its equipment and use. The manual must contain the relevant information in IMO

Resolution A.216. The manual in the rigid liferaft must also contain the relevant information in IMO Resolution A.181.

(47) *Table of lifesaving signals.* The table of lifesaving signals must be those in Regulation V/16 of SOLAS 74/83, printed on a waterproof card.

(48) *Thermal protective aid.* Each thermal protective aid must be approved by the Commandant (G-MVI) under Subpart 160.174 of this chapter.

(49) *Tool kit.* The tool kit must contain sufficient tools for minor adjustments to the engine and its accessories. As a minimum, the tool kit must include:

(i) A container large enough to hold all the items in the kit.

(ii) One 340 g (12 oz.) ball peen hammer.

(iii) One screwdriver with a 150 mm (6 in.) flat blade.

(iv) One pair of 200 mm (8 in.) slip-joint pliers.

(v) One 200 mm (8 in.) adjustable wrench.

(50) *Towline*. The towline for a rescue boat meeting Subpart 160.056 of this chapter must be at least the same size and length as its painter. The towline for each other rescue boat and lifeboat must be buoyant, not less than 50 m (164 ft.) in length, and must have a breaking strength of not less than 13.3 kN (3,000 lb.).

(51) *Water*. At least two-thirds of the water must be emergency drinking water approved under Subpart 160.026 of this chapter. The remainder must either be emergency drinking water approved under Subpart 160.026 of this chapter, or desalting apparatus approved under Subpart 160.058 of this chapter capable of producing the required amount of fresh water in 2 days.

(52) *Whistle.* The whistle must be a ball-type or multi-tone whistle of corrosion-resistant construction, attached to a lanyard at least 0.9 m (3 ft.) long.

TABLE 199.175(c)

[illegible]

TABLE 199.175(c)—Continued

Item No.	Item	Ocean			Short international voyage and coastwise			Great Lakes			Lakes, bays, and sounds			Rivers		
		Life-boat	Rigid Life-raft	Rescue boat	Life-boat	Rigid Life-raft	Rescue boat	Life-boat	Rigid Life-raft	Rescue boat	Life-boat	Rigid Life-raft	Rescue boat	Life-boat	Rigid Life-raft	Rescue boat
8	Cover, protecting	1 ⁸	None	None	1 ⁸	None	None	None	None	None	None	None	None	None	None	None
9	Dipper	1	None	None	1	None	None	None	None	None	None	None	None	None	None	None
10	Ditty bag	1 ⁸	None	None	1 ⁸	None	None	None	None	None	None	None	None	None	None	None
11	Drinking Cup	1	1	None	1	1	None	None	None	None	None	None	None	None	None	None
12	EPIRB/SART	1	None	1	1	None	1 ⁸	None	None	None	None	None	None	None	None	None
13	Fire extinguisher	2 ⁸	None	1 ⁸	2 ⁸	None	1 ⁸	2 ⁸	None	1 ⁸	2 ⁸	None	1 ⁸	2 ⁸	None	1 ⁸
14	First-aid kit	1	1	1	1	1	1	None	None	None	None	None	None	None	None	None
15	Fishing kit	1	1	None	None	None	None	None	None	None	None	None	None	None	None	None
16	Flashlight	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Hatchet	2	None	None	2	None	None	2	None	None	1	None	None	1	None	None
18	Heaving line	2	1	2	2	1	2	None	None	None	None	None	None	None	None	None
19	Instruction card	None	1	None	None	1	None	1	None	None	None	1	None	None	1	None
20	Jackknife	1	None	1	1	None	1	None	None	None	None	None	None	None	None	None
21	Knife	None	1 ⁹	1 ¹⁰	None	1 ⁹	1 ¹⁰	None	None	None	None	None	None	None	None	None
22	Ladder	1	None	1	1	None	1	1	None	1	None	None	None	None	None	None
23	Lantern or interior lighting	1	None	None	1	None	None	1	None	None	1	None	None	1	None	None
24	Lifejacket	2	None	None	2	None	None	2	None	None	2	None	None	2	None	None
25	Mast and sail	1 ¹¹	None	None	1 ¹¹	None	None	None	None	None	None	None	None	None	None	None
26	Matches (boxes)	2 ¹²	None	None	2 ¹²	None	None	1 ¹²	None	None	1 ¹²	None	None	1 ¹²	None	None
27	Mirror, signalling	2	1	None	2	1	None	None	None	None	None	None	None	None	None	None
28	Oars (units)	1 ¹³	None	1	1	None	1	1	None	1	1	None	1	1	None	1
29	Oil, illuminating (quarts)	1 ¹⁴	None	None	1 ¹⁴	None	None	None	None	None	None	None	None	None	None	None
30	Paddles	None	2	None	None	2	None	None	2	None	None	2	None	None	2	None
31	Painter	2	1	1	2	1	1	2	1	1	1	1	1	1	1	1
32	Provisions (units per person)	1 ¹⁵	1 ¹⁵	None	None	None	None	None	None	None	None	None	None	None	None	None
33	Pump	None	None	1 ¹⁶	None	None	1 ¹⁶	None	None	1 ¹⁶	None	None	1 ¹⁶	None	None	1 ¹⁶
34	Radar Reflector	1	None	1	None	1	1	None	None	None	None	None	None	None	None	None
35	Rainwater collection device	1 ¹⁷	None	None	1 ¹⁷	None	None	None	None	None	None	None	None	None	None	None
36	Repair kit	None	None	1 ¹⁸	None	None	1 ¹⁸	None	None	1 ¹⁸	None	None	1 ¹⁸	None	None	1 ¹⁸
37	Rudder and tiller	1 ¹⁹	None	None	1 ¹⁹	None	None	1 ¹⁹	None	None	None	None	None	None	None	None
38	Sea anchor	1	2	1	1	2	1	1	2	1	None	None	None	None	None	None
39	Searchlight	1 ²⁰	None	1	1 ²⁰	None	1	1	None	1	None	None	None	None	None	None
40	Seasickness kit (kits per person)	1	1	None	1	1	None	None	None	None	None	None	None	None	None	None
41	Signal, orange smoke	2	2	None	2	1	None	None	None	None	None	None	None	None	None	None
42	Signal, red hand flare	12	12	None	12	6	None	6	6	None	6	6	None	None	None	None
43	Signal, red parachute flare	12	12	None	12	6	None	6	6	None	None	None	None	None	None	None
44	Skates and fenders (set)	1 ²¹	None	None	1 ²¹	None	None	1 ²¹	None	None	1 ²¹	None	None	1 ²¹	None	None
45	Sponge	None	2	2 ²²	None	2	2 ²²	None	2	2 ²²	None	2	2 ²²	None	2	2 ²²
46	Survival Instructions	1	1	None	1	1	None	1	1	None	1	1	None	None	None	None
47	Table of lifesaving signals	1	1	None	1	1	None	None	None	None	None	None	None	None	None	None
48	Thermal protective aid (percent of persons)	10% ²³	10% ²³	10% ²³	10% ²³	10% ²³	10% ²³	None	None	None	None	None	None	None	None	None
49	Tool kit	1 ²⁴	None	None	1 ²⁴	None	None	1 ²⁴	None	None	1 ²⁴	None	None	1 ²⁴	None	None
50	Towline	1 ²⁵	None	1	1 ²⁵	None	1	1 ²⁵	None	1	1 ²⁵	None	1	1 ²⁵	None	1
51	Water (liters per person)	3	1.5	None	3	1	None	None	None	None	None	None	None	None	None	None
52	Whistle	1	1	1	1	1	1	None	None	None	None	None	None	None	None	None

¹ (Reserved).

² Each lifeboat approved for 13 persons or more must carry an additional bailer.

³ Each lifeboat approved for 100 persons or more must carry an additional bilge pump, or be equipped with a powered bilge pump.

⁴ Not required for inflated or rigid/inflated rescue boats.

⁵ Not required for totally enclosed lifeboats.

⁶ Required only for an open lifeboat provided with a mast and sail.

⁷ (Reserved).

⁸ Required only for motor-propelled lifeboats and rescue boats.

⁹ Each lifeboat equipped for 13 persons or more must carry an additional knife, that must either meet the same requirements as the first knife, or must be a jackknife approved under Subpart 160.043 of this chapter.

¹⁰ A hatchet counts toward this requirement in rigid rescue boats.

¹¹ Not required for a lifeboat powered by a motor, or a hand-propelling gear approved under Subpart 160.034 of this chapter.

¹² Required only if the lifeboat carries an oil lantern under item 23.

¹³ Not required for a lifeboat or lifeboat on a mobile offshore drilling unit unless the unit is in international service as defined under § 107.111 of this chapter.

¹⁴ Not required for a rigid rescue boat.

¹⁵ Not required for a lifeboat with a protecting cover (item 8) that includes a rainwater collection device.

¹⁶ Not required for a lifeboat with a permanently installed steering system.

¹⁷ Required only on lifeboats built on or after July 1, 1986, and on Class 2 and Class 3 motor lifeboats built before July 1, 1986.

¹⁸ Not required if the launching arrangement is such that skates and fenders are unnecessary.

¹⁹ Sufficient thermal protective aids are required for at least 10% of the persons the survival craft is equipped to carry, but not less than 2.

²⁰ Required only if the lifeboat is also the rescue boat.

(d) *Buoyant apparatus and life floats.*
Unless otherwise stated in this paragraph, each buoyant apparatus, inflatable buoyant apparatus and life

float must carry the equipment specified for it in Table 199.175(d) under the vessel's category of service. Each item in the table is described below along

with any exceptions or limitations, with the paragraph number corresponding to the item number in the table.

(1) *Boathook*. Each boathook must have a single hook and ball-point. The handle of each boathook must be—

(i) Of clear-grained white ash or the equivalent;

(ii) At least 38 mm (1½ in.) in diameter; and

(iii) At least 1.8 m (6 ft.) long.

(2) *Lifeline and pendants*. The lifeline and pendants must be as furnished by the manufacturer with the approved life float or buoyant apparatus. Replacement lifelines and pendants must meet the requirements in Subpart 160.010 of this chapter.

(3) *Paddle*. Each paddle must be at least 1.2 m (4 ft.) long and buoyant.

(4) *Painter*. The painter must—

(i) Be at least 30 m (100 ft.) long, but not less than 3 times the distance between the deck where the life floats and buoyant apparatus are stowed and the light draft of the vessel;

(ii) Have a breaking strength of at least 6.7 kN (1500 lb.), except that if the capacity of the life float or buoyant apparatus is 50 persons or more, the breaking strength must be at least 13.4 kN (3000 lb.);

(iii) Be of a dark color if synthetic, or of a type certified to be resistant to deterioration from ultraviolet light; and

(iv) Be stowed in such a way that it runs out freely when the life float or buoyant apparatus floats away from the sinking vessel.

(5) *Water light*. The water light must be approved under Subpart 161.010 of this chapter, and must be attached to the life float or buoyant apparatus by a 12-thread manila, or equivalent lanyard, at least 5.5 m (18 ft.) long.

TABLE 199.175(d)

Item No.	Item	Ocean	Short Int'l. Voyage and Coastwise	Great Lakes	Lakes; Bays; and Sounds	Rivers
1	Boathook ¹	1	1	1	1	1
2	Lifeline and pendants	1	1	1	1	1
3	Paddles ¹	2	2	2	2	2
4	Painter	1	1	1	1	1
5	Water light ²	1	1	1	None	None

¹ Not required to be carried on buoyant apparatus or inflatable buoyant apparatus.

² Not required on life floats or buoyant apparatus with a capacity of 24 persons or less.

Subpart C—Additional Requirements for Passenger Vessels

§ 199.200 General.

Each passenger vessel must meet the requirements in this subpart in addition to the requirements in Subparts A and B.

§ 199.201 Survival craft.

(a) *General*. Each survival craft on a passenger vessel must be approved by the Commandant (G-MVI) as follows:

(1) Each open lifeboat must meet Subpart 160.035 of this chapter.

(2) Each partially enclosed lifeboat must meet Subpart 160.035 of this chapter; and Regulations III/30.2, III/41, and III/42 of SOLAS 74/83.

(3) Each totally enclosed lifeboat must meet Subpart 160.035 of this chapter; and Regulations III/30.2, III/41, and III/44 of SOLAS 74/83.

(4) Each inflatable liferaft must meet Subpart 160.051 of this chapter; and Regulations III/30.2, III/38, and III/39 of SOLAS 74/83. Each inflatable liferaft on a passenger vessel in ocean or short international voyage service must have a capacity of 6 persons or more.

(5) Each rigid liferaft must meet Subpart 160.018 of this chapter; and Regulations III/30.2, III/38, and III/40 of SOLAS 74/83. Each rigid liferaft on a passenger vessel in ocean or short international voyage service must have a capacity of 6 persons or more.

(6) Each inflatable buoyant apparatus must be approved by the Commandant (G-MVI).

(b) *Ocean service*. Each passenger vessel in ocean service must carry the following:

(1) Totally enclosed or partially enclosed lifeboats.

(i) The lifeboats on each side of the vessel must have an aggregate capacity that will accommodate not less than 50% of the total number of persons permitted on board.

(ii) The OCMI may accept substitution of lifeboats by liferafts of equivalent total capacity provided that there are lifeboats on each side of the vessel with an aggregate capacity that will accommodate not less than 37.5% of the total number of persons permitted on board.

(2) Liferafts.

(i) The liferafts substituted for lifeboats under paragraph (b)(1)(ii) of this section must be served by launching appliances equally distributed on each side of the vessel.

(ii) In addition to any liferafts under paragraph (b)(1)(ii) of this section, liferafts must be provided having an aggregate capacity that will accommodate at least 25% of the total number of persons permitted on board.

(A) Stowage of these liferafts is not required to meet § 199.135(d).

(B) These liferafts must either be readily transferable for launching on either side of the vessel, or arranged for launching on one side of the vessel, provided that one or more liferafts with the same capacity are on the opposite side of the vessel. The liferaft or liferafts

on the opposite side of the vessel must be in addition to the liferafts required under paragraphs (b)(1)(ii) and (b)(2)(ii) of this section.

(C) These liferafts must be served by at least one launching appliance on each side of the vessel. These launching appliances must either be those under paragraph (b)(2)(ii) of this section, or equivalent appliances approved by the Commandant (G-MVI), capable of being used on both sides of the vessel.

(c) *Short international voyage or coastwise service*. Each passenger vessel in short international voyage service that meets the special standards of subdivision in § 171.068 of this chapter, and each passenger vessel in coastwise service must carry the following:

(1) Totally enclosed or partially enclosed lifeboats.

(i) The lifeboats must have an aggregate capacity that will accommodate not less than 30% of the total number of persons permitted on board.

(ii) The lifeboats must be equally distributed, as far as practicable, on each side of the vessel.

(2) Liferafts.

(i) The liferafts must have an aggregate capacity that, together with the lifeboats, will accommodate the total number of persons permitted on board. These liferafts must be served by launching appliances equally distributed on each side of the vessel.

(ii) In addition to the liferafts required under paragraph (c)(2)(i) of this section, liferafts must be provided with an aggregate capacity that will accommodate at least 25% of the total number of persons permitted on board.

(A) Stowage of these liferafts is not required to meet § 199.135(d).

(B) These liferafts must either be readily transferable for launching on either side of the vessel, or arranged for launching on one side of the vessel, provided that one or more liferafts with the same capacity are on the opposite side of the vessel. The liferaft or liferafts on the opposite side of the vessel must be in addition to the liferafts required under paragraphs (c)(2)(i) and (c)(2)(ii) of this section.

(C) These liferafts must be served by at least one launching appliance on each side of the vessel. These launching appliances must be those under paragraph (c)(2)(i) of this section, or equivalent appliances approved by the Commandant (G-MVI), capable of being used on both sides of the vessel.

(d) *Great Lakes service.* Each passenger vessel in Great Lakes service must carry the following:

(1) Totally enclosed or partially enclosed lifeboats.

(i) The lifeboats must have an aggregate capacity that will accommodate not less than 30% of the total number of persons permitted on board.

(ii) The lifeboats must be equally distributed, as far as practicable, on each side of the vessel.

(2) Liferafts.

(i) The liferafts must have an aggregate capacity that, together with the lifeboats, will accommodate the total number of persons permitted on board. These liferafts must be served by launching appliances equally distributed on each side of the vessel.

(ii) In addition to the liferafts required under paragraph (d)(2)(i) of this section, liferafts must be provided with an aggregate capacity that will accommodate at least 10% of the total number of persons permitted on board, or that will accommodate the capacity of the largest single survival craft on the vessel, whichever is the greater.

(A) Stowage of these liferafts is not required to meet § 199.135(d).

(B) These liferafts must be served by at least one launching appliance on each side of the vessel. The launching appliances must be those under paragraph (d)(2)(i) of this section, or equivalent appliances approved by the Commandant (G-MVI), capable of being used on both sides of the vessel.

(e) *Lakes, bays, and sounds, or river service.* Each passenger vessel in lakes,

bays, and sounds service, or in river service must carry the following:

(1) Totally enclosed, partially enclosed, or open lifeboats.

(i) The lifeboats must have an aggregate capacity that will accommodate not less than 25% of the total number of persons permitted on board.

(ii) The lifeboats must be equally distributed, as far as practicable, on each side of the vessel.

(2) Liferafts. The liferafts must have an aggregate capacity that, together with the lifeboats, will accommodate the total number of persons permitted on board. These liferafts must be served by launching appliances equally distributed on each side of the vessel if the embarkation deck is more than 3 m (10 ft.) above—

(i) The waterline under normal operating conditions; or

(ii) The equilibrium waterline after being subjected to the assumed damage and subdivision requirements in Part 171 of this chapter.

(f) *Alternative; small vessels.* A passenger vessel less than 500 tons gross tonnage where the total number of persons permitted on board is less than 200, is not required to meet paragraph (b), (c), (d), or (e) of this section, if it meets the following:

(1) Liferafts must be provided on each side of the vessel with an aggregate capacity that will accommodate the total number of persons permitted on board.

(2) Unless the liferafts required under paragraph (f)(1) of this section can be readily transferred for launching on either side of the vessel, additional liferafts must be provided to bring the total capacity available on each side to at least 150% of the total number of persons permitted on board.

(3) If the rescue boat required under § 199.202 is also a lifeboat, it is included in the aggregate capacity required under paragraph (f)(1) of this section, provided that paragraph (f)(2) of this section is met.

(4) In the event of the largest survival craft on either side of the vessel being lost or rendered unserviceable, there must be sufficient survival craft available for use on that side to accommodate the total number of persons permitted on board.

(g) *Alternative; ferries and vessels in lakes, bays, and sounds, or river service.* A ferry not in ocean service or short international voyage service, or a passenger vessel in lakes, bays, and sounds service, or in river service, is not required to meet paragraph (c), (d), or (e) of this section, if it meets the following:

(1) Inflatable buoyant apparatus must be provided with an aggregate capacity that will accommodate the total number of persons permitted on board.

(2) Additional inflatable buoyant apparatus must be provided with an aggregate capacity not less than the larger of—

(i) 10% of the total number of persons on board; or

(ii) The capacity of the largest inflatable buoyant apparatus on board.

(3) Embarkation must be provided on each side of the vessel by at least one marine escape slide approved by the Commandant (G-MVI), if the embarkation deck is more than 3 m (10 ft.) above both—

(i) The waterline under normal operating conditions; and

(ii) The equilibrium waterline after being subjected to the assumed damage and subdivision requirements in Part 171 of this chapter.

(4) If a rescue boat required under § 199.202 is also a lifeboat, it is included in the aggregate capacity required under paragraph (g)(1) of this section.

(h) *Alternative; warm water operation; vessels not in ocean, short international voyage, or coastwise service.* During those periods of the year when the normal temperature of the water equals or exceeds 15 °C (59 °F) in the area where the vessel operates, a vessel not in ocean, short international voyage, or coastwise service is required to have 10% of the survival craft that would otherwise be required under paragraph (d), (e), (f), or (g) of this section.

(i) *Alternative; shallow water operation close to land; vessels not in ocean, short international voyage, or coastwise service.* No survival craft are required under this section on vessels that—

(1) Are not in ocean, short international voyage, or coastwise service; and

(2) Operate not more than 3 miles from land in water where the average depth of the channel does not exceed 1 m (39 in.).

§ 199.202 Rescue boats.

(a) *General; vessels 500 tons and over.* Each passenger vessel of 500 tons gross tonnage and over must carry at least one rescue boat on each side of the vessel. Each rescue boat must be approved by the Commandant (G-MVI) as meeting Regulations III/30.2 and III/47 of SOLAS 74/83.

(b) *General; vessels less than 500 tons.* Each passenger vessel of less than 500 tons gross tonnage must carry at least one rescue boat. The rescue boat

must be approved by the Commandant (G-MVI) as meeting Regulations III/30.2 and III/47 of SOLAS 74/83.

(c) *Alternative: use of lifeboat as rescue boat.* A lifeboat is accepted as a rescue boat if it also meets the requirements for rescue boats as specified in Regulation III/47 of SOLAS 74/83.

(d) *Alternative: vessels operating in harbors, sheltered lakes, or river service.* A vessel operating in harbors or sheltered lakes, or operating in river service is not required to carry a rescue boat approved as meeting Regulations III/30.2 and III/47 of SOLAS 74/83, if it carries a rescue boat meeting Subpart

160.056 of this chapter. The rescue boat must be equipped with a motor.

§ 199.203 Marshalling of liferafts.

(a) To permit efficient marshalling of liferafts, each passenger vessel in ocean, short international voyage, or coastwise service must have a lifeboat or rescue boat for each six liferafts when—

(1) Each lifeboat and rescue boat is loaded with its full complement of persons; and

(2) The minimum number of liferafts necessary to accommodate the remainder of the persons permitted on board have been launched.

(b) A passenger vessel in short international voyage or coastwise

service which meets the special standards of subdivision in § 171.068 of this chapter, is not required to meet paragraph (a) of this section if it has a lifeboat or rescue boat for each nine liferafts when—

(1) Each lifeboat and rescue boat is loaded with its full complement of persons; and

(2) The minimum number of liferafts necessary to accommodate the remainder of the persons permitted on board have been launched.

§ 199.211 Ring life buoys.

(a) *General.* The minimum number of ring life buoys carried to meet § 199.70, is prescribed in Table 199.211.

TABLE 199.211

Length of vessel in meters (feet)	Minimum number of ring life buoys	
	Ocean and short international voyage service	Other than ocean and short int'l voyage service
Under 30 (98)	8	3
30 (98) and under 60 (196)	8	4
60 (196) and under 90 (297)	12	6
90 (297) and under 120 (393)	12	12
120 (393) and under 180 (590)	18	18
180 (590) and under 240 (787)	24	24
240 (787) and over	30	30

(b) *Small vessels in ocean or short international voyage service.* Notwithstanding § 199.70(a)(3), each passenger vessel under 60 m (196 ft.) in length in ocean or short international voyage service, must carry not less than six ring life buoys with floating electric water lights.

§ 199.212 Lifejackets: ocean or short international voyage service.

In addition to the lifejackets required under § 199.72, each passenger vessel in ocean or short international voyage service must carry lifejackets for not less than 5% of the total number of persons permitted on board. These lifejackets must be stowed in conspicuous places on deck or at muster stations.

§ 199.213 Lifejacket lights; ferries.

Notwithstanding the requirements of § 199.75(a), lifejackets on ferries are not required to be fitted with lifejacket lights.

§ 199.214 Immersion suits and thermal protective aids; ocean, short international voyage, coastwise, or Great Lakes service.

(a) Each passenger vessel in ocean, short international voyage, coastwise, or Great Lakes service must carry an immersion suit for each person—

(1) In command of a survival craft;

(2) Second in command of a lifeboat;

(3) Assigned to operate a survival craft; and

(4) Assigned to operate a survival craft launching appliance.

(b) The number of immersion suits for the crew of each lifeboat provided under paragraph (a) of this section must be at least three.

(c) In addition, the vessel must carry a thermal protective aid approved by the Commandant under Subpart 160.174 of this chapter for each person not provided with an immersion suit.

(d) The immersion suits and thermal protective aids under this section are not required if the vessel operates only on routes between 32° N and 32° S latitude.

§ 199.217 Station bill (muster list).

(a) The format of the station bill under § 199.80 used on a passenger vessel must be approved by the OCMI.

(b) Where the size of the crew permits, the station bill on a passenger vessel must include an emergency squad organized by the master to form the nucleus of a damage control party. This squad consists of persons specially trained in the use of the emergency and rescue equipment, and generally familiar with the vessel and fundamentals of damage control.

§ 199.220 Survival craft and rescue boat embarkation arrangements.

(a) Survival craft embarkation arrangements must be designed for—

(1) Each lifeboat to be boarded and launched either directly from the stowed position or from an embarkation deck, but not both; and

(2) Davit-launched liferafts to be boarded and launched from a position immediately adjacent to the stowed position or from a position to where, under § 199.135(d), the liferaft is transferred before launching.

(b) Each rescue boat must be able to be boarded and launched directly from the stowed position with the number of persons assigned to crew the rescue boat on board. Notwithstanding paragraph (a)(1) of this section, if the rescue boat is also a lifeboat and the other lifeboats are boarded and launched from an embarkation deck, the arrangements must be such that the rescue boat can also be boarded and launched from the embarkation deck.

§ 199.230 Stowage of survival craft.

(a) In order to meet § 199.133(a), each lifeboat on a passenger vessel of 80 m (262 ft.) in length and upwards, must be stowed where the after end of the lifeboat is not less than 1.5 times the

length of the lifeboat forward of the propeller.

(b) Each liferaft and each inflatable buoyant apparatus must be arranged for float-free launching.

§ 199.240 Muster stations.

Each passenger vessel must, in addition to meeting § 199.110, have passenger muster stations that—

(a) Are near the embarkation stations unless in the same location;

(b) Permit ready access for the passengers to the embarkation stations unless in the same location; and

(c) Have sufficient room to marshal and instruct the passengers.

§ 199.245 Survival craft embarkation and launching arrangements.

(a) Each passenger vessel davit-launched liferaft must be arranged to be rapidly boarded by its full complement of persons.

(b) All survival craft required for abandonment by the total number of persons permitted on board must be capable of being launched with their full complement of persons and equipment within a period of 30 min. from the time the abandon-ship signal is given.

§ 199.250 Fixed radio installation for lifeboats: international voyage.

Each passenger vessel on an international voyage carrying a Class A EPIRB as an alternative to a Category 1, 406 MHz Satellite EPIRB, must have a fixed radio installation meeting the regulations of the Federal Communications Commission at 47 CFR 80.267 in—

(a) At least one lifeboat where the total number of persons permitted on board is more than 199 but less than 1,500; and

(b) At least one lifeboat on each side of the vessel where the total number of persons permitted on board is 1,500 or more.

Subpart D—Additional Requirements for Cargo Vessels

§ 199.260 General.

Each cargo vessel must meet the requirements in this subpart in addition to the requirements in subparts A and B.

§ 199.261 Survival craft.

(a) *General.* Each survival craft on a cargo vessel must be approved by the Commandant (G-MVI) as follows:

(1) Each open lifeboat must meet Subpart 160.035 of this chapter.

(2) Each totally enclosed lifeboat must meet Subpart 160.035 of this chapter; and Regulations III/30.2, III/41, and III/44 of SOLAS 74/83.

(3) Each inflatable liferaft must meet Subpart 160.051 of this chapter; and Regulations III/30.2, III/38, and III/39 of SOLAS 74/83. Each inflatable liferaft on a cargo vessel in ocean or short international voyage service must have a capacity of 6 persons or more.

(4) Each rigid liferaft must meet Subpart 160.018 of this chapter; and Regulations III/30.2, III/38, and III/40 of SOLAS 74/83. Each rigid liferaft on a cargo vessel in ocean service must have a capacity of 6 persons or more.

(5) Each life float must meet Subpart 160.027 of this chapter.

(6) Each inflatable buoyant apparatus must be approved by the Commandant (G-MVI).

(b) *Ocean or coastwise service.* Each cargo vessel in ocean or coastwise service must carry the following:

(1) Totally enclosed lifeboats. The lifeboats on each side of the vessel must have an aggregate capacity that will accommodate the total number of persons permitted on board.

(2) One or more liferafts capable of being launched on either side of the vessel. The liferafts must have an aggregate capacity that will accommodate the total number of persons permitted on board. If the liferaft or liferafts can not be readily transferred for launching on either side of the vessel, the total capacity available on each side must be sufficient to accommodate the total number of persons permitted on board.

(c) *Alternative: ocean or coastwise service.* A cargo vessel in ocean or coastwise service is not required to meet paragraph (b) of this section, if it carries the following:

(1) One or more lifeboats capable of being free-fall launched over the stern of the vessel. The lifeboats must have an aggregate capacity that will accommodate the total number of persons permitted on board.

(2) Liferafts. The liferafts on each side of the vessel must have an aggregate capacity that will accommodate the total number of persons permitted on board. The liferafts on at least one side of the vessel must be served by launching appliances.

(d) *Alternative for vessels less than 85 m long and for nonself-propelled vessels: ocean or coastwise service.* A cargo vessel less than 85 m (278 ft.) in length in ocean or coastwise service, or a nonself-propelled vessel in ocean or coastwise service is not required to meet paragraphs (b) or (c) of this section, if it meets the following:

(1) One or more liferafts must be carried on each side of the vessel. The liferafts on each side must have an aggregate capacity that will

accommodate the total number of persons permitted on board.

(2) Unless the liferafts required under paragraph (d)(1) of this section can be readily transferred for launching on either side of the vessel, additional liferafts must be provided to bring the total capacity available on each side to at least 150% of the total number of persons permitted on board.

(3) If the rescue boat required under § 199.262 is also a lifeboat, it is included in the aggregate capacity required under paragraph (d)(1) of this section, provided that the total survival craft capacity available on each side of the vessel is at least 150% of the total number of persons permitted on board.

(4) In the event of the largest survival craft on either side of the vessel being lost or rendered unserviceable, there must be sufficient survival craft available for use on that side to accommodate the total number of persons permitted on board.

(5) In calculating the capacity of survival craft on board the vessel, no individual survival craft is credited with a capacity greater than the total number of persons permitted on board.

(e) *Great Lakes or lakes, bays, and sounds service.* Each cargo vessel in Great Lakes or lakes, bays, and sounds service must meet the following:

(1) The vessel must have one or more totally enclosed lifeboats with an aggregate capacity sufficient to accommodate the total number of persons permitted on board.

(2) The vessel must have one or more liferafts with an aggregate capacity sufficient to accommodate the total number of persons permitted on board.

(3) The aggregate capacity of the lifeboats and liferafts on each side of the vessel must be sufficient to accommodate the total number of persons permitted on board.

(f) *Alternative for vessels less than 85 m long and for nonself-propelled vessels: Great Lakes service; lakes, bays, and sounds service; or vessels operating on the continental shelf of the United States.* A cargo vessel less than 85 m (278 ft.) in length in Great Lakes service; lakes, bays, and sounds service; or operating on the continental shelf of the United States; or a nonself-propelled vessel in Great Lakes service; lakes, bays, and sounds service; or operating on the continental shelf of the United States, is not required to meet paragraph (e) of this section, if it meets the following:

(1) One or more liferafts must be carried with an aggregate capacity that will accommodate the total number of persons permitted on board.

(2) Unless the liferafts required under paragraph (f)(1) of this section can be readily transferred for launching on either side of the vessel, additional liferafts must be provided to bring the total capacity available on each side to at least 100% of the total number of persons permitted on board.

(3) If the rescue boat required under § 199.262 is also a lifeboat, it is included in the aggregate capacity required under paragraph (f)(1) of this section, if the requirements under paragraph (f)(2) of this section are met.

(g) *River service.* Each cargo vessel in river service must have a combination of lifeboats, liferafts, or inflatable buoyant apparatus, that together with its rescue boat, provides an aggregate capacity that will accommodate the total number of persons permitted on board.

(h) *Additional liferaft for large vessels.* Each cargo vessel where the survival craft are stowed more than 100 m (328 ft.) from the stern must carry, in addition to the liferafts required under paragraphs (b)(2), (c)(2), or (e)(2) of this section, a liferaft stowed as far forward as is reasonable and practicable. Each cargo vessel where the survival craft are stowed more than 100 m (328 ft.) from the stern must carry, in addition to the liferafts required under paragraphs (b)(2), (c)(2), or (e)(2) of this section, a liferaft stowed as far aft as is reasonable and practicable. The requirement for the liferaft to float free under § 199.290(b) does not apply to a liferaft under this paragraph, provided it is arranged for quick manual release.

(i) *Alternative: warm water operation; vessels not in ocean or coastwise service and small vessels operating on the continental shelf of the United States in the Gulf of Mexico.* Lifeboats, liferafts, and inflatable buoyant apparatus are not required if life floats of a combined capacity to accommodate all persons permitted on board are carried on the following:

(1) Vessels not in ocean or coastwise service during those periods of the year when the normal temperature of the water equals or exceeds 15 °C (59 °F) in the area where the vessel operates.

(2) Vessels less than 500 tons gross tonnage operating exclusively on the continental shelf of the United States in the Gulf of Mexico.

(j) *Alternative: shallow water operation close to land; vessels not in ocean or coastwise service.* No survival craft are required under this section on vessels that—

(1) Are not in ocean or coastwise service; and

(2) Operate not more than 3 miles from land in water where the average depth of the channel does not exceed 1 m (39 in.).

§ 199.262 Rescue boats.

(a) *Ocean service.* Each cargo vessel in ocean service must carry at least one rescue boat. The rescue boat must be approved by the Commandant (G-MVI) as meeting Regulations III/30.2 and III/47 of SOLAS 74/83. A lifeboat is accepted as a rescue boat if it also meets the requirements for a rescue boat.

(b) *Coastwise or Great Lakes service.* Each cargo vessel in coastwise or Great Lakes service must carry at least one rescue boat. The rescue boat must be approved by the Commandant (G-MVI) as meeting Regulations III/30.2 and III/47 of SOLAS 74/83.

(1) A lifeboat is accepted as a rescue boat if it also meets the requirements for a rescue boat.

(2) A vessel that uses a motor-propelled work boat or launch in its normal operations is not required to carry a rescue boat if the work boat or launch meets the stowage, launching, and recovery requirements, and carries the same equipment as the rescue boat that would otherwise be required.

(c) *Lakes, bays, and sounds service.* Each cargo vessel in lakes, bays, and sounds service must carry at least one rescue boat. The rescue boat must be approved by the Commandant (G-MVI) as meeting Regulations III/30.2 and III/47 of SOLAS 74/83.

(1) A lifeboat is accepted as a rescue boat if it also meets the requirements for a rescue boat.

(2) A vessel that uses a motor-propelled work boat or launch in its normal operations is not required to carry a rescue boat if the work boat or launch carries the same equipment as the rescue boat that would otherwise be required.

(3) A vessel operating in harbors or sheltered lakes is not required to carry a rescue boat approved by the Commandant (G-MVI) as meeting Regulations III/30.2 and III/47 of SOLAS 74/83, if it carries a rescue boat meeting Subpart 160.056 of this chapter.

(d) *River service.* Each cargo vessel in river service where the average depth of the channel exceeds 1 m (39 in.), must carry at least one rescue boat meeting Subpart 160.056 of this chapter. A vessel that uses a work boat or launch in its normal operations is not required to carry a rescue boat if the work boat or launch carries the same equipment as the rescue boat that would otherwise be required.

(e) *Alternative: vessels not in ocean service.* A rescue boat is not required for a vessel, other than a vessel in ocean service, if—

(1) The OCMI determines the vessel is arranged to allow a helpless person to be recovered from the water;

(2) Recovery of the helpless person can be observed from the navigating bridge; and

(3) The vessel does not regularly engage in operations that restrict its maneuverability.

(f) *Alternative: nonself-propelled vessels.* A rescue boat is not required on a nonself-propelled vessel if the vessel is normally always—

(1) Under tow;

(2) Moored to or alongside a mobile offshore drilling unit or self-propelled vessel; or

(3) Moored to shore.

§ 199.271 Ring life buoys.

(a) *Self-propelled vessels.* For a self-propelled vessel, the minimum number of ring life buoys carried to meet § 199.70, is prescribed in Table 199.271.

TABLE 199.271

Length of vessel in meters (feet)	Minimum number of ring life buoys	
	Ocean service	Other than ocean service
Under 30 (98)		
30 (98) and under 60 (196)	8	3
60 (196) and under 100 (328)	8	4
100 (328) and under 150 (492)	8	6
150 (492) and under 200 (656)	12	12
200 (656) and under 250 (820)	18	18
	24	24

TABLE 199.271—Continued

Length of vessel in meters (feet)	Minimum number of ring life buoys	
	Ocean service	Other than ocean service
250 (820) and over	30	30

(b) *Nonself-propelled vessels.* Each nonself-propelled vessel must have one ring life buoy at each end of the vessel.

(c) *Small vessels: not in ocean service.* Notwithstanding the requirements of § 199.70(a)(3), a cargo vessel is not required to have any ring life buoys with water lights if it is—

- (1) Under 30 m (98 ft.) in length; and
- (2) Not in ocean service.

§ 199.272 Lifejackets.

In addition to the lifejackets required under § 199.72, each vessel with a liferaft under § 199.261(h) of this chapter must have enough lifejackets to equal the capacity of the liferaft stowed at the liferaft station.

§ 199.273 Immersion suits: ocean, coastwise, or Great Lakes service.

(a) This section applies to each vessel in ocean, coastwise, or Great Lakes service, except those operating on routes between 32°N and 32°S latitude.

(b) Each vessel must carry an immersion suit for each person permitted on board. A child/small adult size immersion suit must be provided for each person smaller than the lower size limit of the adult immersion suits.

(c) In addition to the immersion suits required under paragraph (b) of this section, the engine room, pilot house, bow lookout station, and each work station and industrial work site must have enough immersion suits to equal the number of persons normally on watch in or assigned to the station at one time. However, an immersion suit is not required at a watch station, work station, or work site for a person whose cabin, stateroom, or berthing area (and the immersion suits stowed in that location) is readily accessible to the station or site.

(d) The immersion suits required under this section count toward meeting the requirements of § 199.73.

§ 199.290 Survival craft embarkation and launching arrangements: ocean, coastwise, or Great Lakes service.

(a) This section applies to vessels in ocean, coastwise, or Great Lakes service.

(b) Each lifeboat must be arranged to be boarded and launched directly from the stowed position.

(c) Each davit-launched liferaft must be arranged to be boarded and launched from a position immediately adjacent to the stowed position or from a position to where the liferaft is transferred under § 199.135(d).

(d) In order to meet § 199.150(g), each lifeboat and davit-launched liferaft on a cargo vessel must be arranged to be boarded by its full complement of persons within 3 min. from the time the instruction to board is given.

(e) All survival craft required for abandonment by the total number of persons permitted on board must be capable of being launched with their full complement of persons and equipment within 10 min. from the time the abandon-ship signal is given.

§ 199.290 Stowage of survival craft.

(a) In order to meet § 199.133(a), each lifeboat on a cargo vessel—

(1) 80 m (262 ft.) in length and upwards but less than 120 m (393 ft.) in length, must be stowed with the after end of the lifeboat not less than one length of the lifeboat forward of the propeller; and

(2) 120 m (393 ft.) in length and upwards, must be stowed with the after end of the lifeboat not less than 1.5 times the length of the lifeboat forward of the propeller.

(b) Each liferaft, other than those required under § 199.261(h), and each inflatable buoyant apparatus must be arranged for float-free launching.

Subpart E—Additional Requirements for Tank Vessels

§ 199.300 General.

Except as provided in this subpart, tank vessels must meet the requirements for cargo vessels in Subpart D.

§ 199.310 Survival craft.

(a) Each lifeboat on a tank ship certificated to carry crude, product, chemicals, or liquefied gases, emitting toxic vapors or gases; must be a lifeboat with a self-contained air support system approved by the Commandant (G-MVI) as meeting Subpart 160.035 of this chapter; and Regulations III/30.2, III/41, III/44, and III/45 of SOLAS 74/83.

(b) Each lifeboat on a tank ship certificated to carry crude, product,

chemicals, or liquefied gases, having a flashpoint less than 60 °C (closed cup test); must be a fire-protected lifeboat approved by the Commandant (G-MVI) as meeting Subpart 160.035 of this chapter; and Regulations III/30.2, III/41, III/44, III/45, and III/46 of SOLAS 74/83. A fire-protected lifeboat must not be of aluminum construction in the hull or canopy.

(c) Substitution of liferafts for lifeboats under § 199.261(d) is not permitted unless the tank vessel is less than 500 tons gross tonnage and not in ocean service.

(d) Each stowage position and each muster and embarkation station for a survival craft on a tank vessel other than the liferaft required under § 199.261(h) of this subchapter, must be in a location—

- (1) Not over a cargo tank; and
- (2) Protected from fire and explosion in the cargo tank area by the deckhouse, or A-60 divisions under § 32.57-5(b) of this chapter, or both.

§ 199.320 Survival craft embarkation and launching arrangements: ocean, coastwise, or Great Lakes service.

(a) This section applies to vessels in ocean, coastwise, or Great Lakes service.

(b) Notwithstanding the requirements of § 199.150(b), each launching appliance on a tank ship carrying crude, product, chemicals, or liquefied gases, together with its lowering and recovery gear, must be arranged in a way that the fully equipped survival craft it serves can be safely lowered on the lower side of the vessel at the angle of heel after damage allowed under—

(1) MARPOL 73/78 in the case of an oil tanker;

(2) The IBC Code in the case of a chemical tanker; or

(3) The IGC Code in the case of a gas carrier.

(c) Each launching appliance on a tank ship certificated to carry crude, product, chemicals, or liquefied gases, having a flashpoint less than 60 °C (closed cup test); must not be of aluminum construction.

Subpart F—Additional Requirements for Special Purpose Ships**§ 199.400 General.**

(a) This subpart applies to the following vessels:

(1) Oceanographic research vessels. Scientific personnel on an oceanographic research vessel are "special personnel" for the purposes of this subpart.

(2) Offshore supply vessels. Offshore workers on an offshore supply vessel are "special personnel" for the purposes of this subpart.

(b) The term "passenger" wherever it is used in Subparts A, B, or C means one of the special personnel on a special purpose ship.

§ 199.405 Lifesaving appliance requirements.

(a) Each special purpose ship permitted to carry more than 50 special personnel must meet the requirements for passenger vessels in Subpart C, except that the lifesaving appliance requirements for passenger vessels on short international voyages do not apply.

(b) Each special purpose ship permitted to carry not more than 50 special personnel must meet the requirements for cargo and miscellaneous vessels in Subpart D, unless it meets the subdivision requirements for ships permitted to carry more than 50 special personnel under the IMO Code of Safety for Special Purpose Ships.

(c) Each special purpose ship permitted to carry not more than 50 special personnel, but meeting the subdivision requirements for ships permitted to carry more than 50 special personnel under the IMO Code of Safety for Special Purpose Ships, must meet either the lifesaving appliance requirements for passenger vessels in Subpart C or the requirements for cargo and miscellaneous vessels in Subpart D.

(d) Notwithstanding the requirements of paragraph § 199.150(a), a self-elevating offshore supply vessel, known in the industry as a "liftboat", is not required to have launching appliances for its liferafts.

§ 199.410 Rescue boats: special purpose ships operating on the continental shelf of the United States.

A rescue boat is not required under § 199.202 or § 199.262 for a special purpose ship operating on the continental shelf of the United States, if all of the following are demonstrated to the satisfaction of the Commandant (G-MVI):

(a) The vessel is arranged to allow a helpless person to be recovered from the water.

(b) Recovery of the helpless person can be observed from the navigating bridge.

(c) The vessel does not regularly engage in operations that restrict its maneuverability.

Subpart G—Additional Requirements for Nautical School Ships**§ 199.500 General.**

(a) This subpart applies to public nautical school ships and civilian nautical school ships.

(b) In addition to a regular passenger, the term "passenger" wherever it is used in Subparts A, B, or C includes each—

(1) Student;

(2) Cadet; and

(3) Instructor who is not also a member of the crew.

§ 199.505 Lifesaving appliance requirements.

(a) Each nautical school ship which meets the structural fire protection requirements for a passenger vessel of the same size and service, must meet the lifesaving appliance and arrangement requirements for passenger vessels in Subpart C.

(b) Each nautical school ship which does not meet the structural fire protection requirements for a passenger vessel of the same size and service, must meet the lifesaving appliance and arrangement requirements for cargo vessels in Subpart D.

(c) Notwithstanding the requirements under § 199.150(e), the release gear is not required to be of the same type on various lifeboats and rescue boats on a nautical school ship.

Subpart H—Additional Requirements for Mobile Offshore Drilling Units**§ 199.600 General.**

(a) For the purposes of this subpart, a "drillship" is a surface type mobile offshore drilling unit (unit) that is not a column stabilized unit as defined in § 107.111 of this chapter.

(b) Each mobile offshore drilling unit (unit), other than a drillship, must meet the requirements in this subpart in addition to the requirements in Subparts A and B for a vessel in ocean service.

(c) Each drillship must meet the requirements in Subpart E for an oil tanker in ocean service carrying a cargo having a flashpoint less than 60°C (closed cup test).

§ 199.605 Survival craft.

(a) *General.* Each survival craft on a unit must be one of the following:

(1) A totally enclosed, fire-protected lifeboat approved by the Commandant (G-MVI) as meeting Subpart 160.035 of this chapter; and Regulations III/30.2, III/41, III/44, III/45, and III/46 of SOLAS 74/83. A fire-protected lifeboat must not be of aluminum construction in the hull or canopy.

(2) An inflatable liferaft approved by the Commandant (G-MVI) as meeting Subpart 160.051 of this chapter; and Regulations III/30.2, III/38, and III/39 of SOLAS 74/83. Each inflatable liferaft must have a capacity of 6 persons or more.

(3) A rigid liferaft approved by the Commandant (G-MVI) as meeting Subpart 160.018 of this chapter; and Regulations III/30.2, III/38, and III/40 of SOLAS 74/83. Each rigid liferaft must have a capacity of 6 persons or more.

(b) *Liferafts and liferafts.* Each unit must carry the following:

(1) Totally enclosed fire-protected lifeboats installed in at least two widely separated locations on different sides or ends of the unit. The arrangement of the lifeboats must provide sufficient capacity to accommodate the total number of persons permitted on board if—

(i) All the lifeboats in any one location are lost or rendered unusable; or

(ii) All the lifeboats on any one side or end of the unit are lost or rendered unusable.

(2) Float-free liferafts. The float-free liferafts must have an aggregate capacity that will accommodate the total number of persons permitted on board. Notwithstanding the requirements of § 199.150(a), these liferafts are not required to be served by launching appliances.

(c) *Alternative: certain self-elevating units.* In the case of a self-elevating unit where, due to its size or configuration, lifeboats can not be located in the widely separated locations required under paragraph (b)(1) of this section, the OCM may require—

(1) The lifeboats to have an aggregate capacity to accommodate the total number of persons permitted on board; and

(2) Liferafts served by launching appliances of an aggregate capacity to accommodate the total number of persons permitted on board. These liferafts may be the float-free liferafts under paragraph (b)(2) of this section, or liferafts in addition to the float-free liferafts.

§ 199.610 Rescue boats.

Each unit must carry at least one rescue boat. The rescue boat must be approved by the Commandant (G-MVI)

as meeting Regulations III/30.2 and III/47 of SOLAS 74/83. A lifeboat is accepted as a rescue boat if it also meets the requirements for a rescue boat.

§ 199.630 Ring life buoys.

(a) Each unit must have at least eight ring life buoys to meet § 199.70.

(b) The releasing mechanism for each ring life buoy with a smoke signal required under § 199.70(c) must be capable of operation from the navigating bridge, main control station, or a location readily available to personnel on board.

§ 199.640 Immersion suits.

(a) This section applies to each unit operating in any ocean or in the Great Lakes, except those operating between 32°N and 32°S latitude.

(b) Each unit must carry an immersion suit for each person permitted on board. A child/small adult size immersion suit must be provided for each person smaller than the lower size limit of the adult immersion suits.

(c) In addition to the immersion suits required under paragraph (b) of this section, each watch station, work station, and industrial work site must have enough immersion suits to equal the number of persons normally on watch in, or assigned to, the station or site at one time. However, an immersion suit is not required at a station or site for a person whose cabin or berthing area (and the immersion suits stowed in that location) is readily accessible to the station or site.

(d) The immersion suits required under this section count toward meeting the requirements of § 199.73.

§ 199.645 Station bill.

The requirements in § 199.80 applying to the crew, also include the industrial personnel assigned to the unit. The requirements in § 199.80 applying to passengers, apply to visitors and other persons on board not regularly employed on the unit. In addition to the requirements in § 199.80, the station bill must—

(a) Cover the duties of the crew in case of collisions or other serious casualties, and

(b) Cover the duties of the crew in case of severe storms.

§ 199.650 Survival craft embarkation and launching arrangements.

(a) Each lifeboat must be arranged to be boarded and launched directly from the stowed position.

(b) In order to meet § 199.150(g), each lifeboat on a unit must be arranged to be boarded by its full complement of

persons within 3 min. from the time the instruction to board is given.

(c) All lifeboats required for abandonment by the total number of persons permitted on board must be capable of being launched with their full complement of persons and equipment within 10 min. from the time the signal to abandon the unit is given.

(d) Each survival craft must be arranged to clear each leg, column, footing, brace, mat, and each similar structure below the hull of a self-elevating unit and below the upper hull of a column stabilized unit, with the unit in an intact condition.

(1) The survival craft is not required to be arranged to be launched down the straight side of the unit as required under § 199.120(b), if it is mounted on a structure intended to provide clearance from lower structures of the unit.

(2) The OCMI may allow a reduction in the total number of survival craft meeting this requirement when the unit is in the transit mode and the number of personnel on board is reduced. In such cases, survival craft sufficient to meet § 199.605 of this chapter must be available for use by the total number of personnel remaining on board.

(e) When the unit is under any unfavorable condition such as maximum airgap, lightest transit or operational condition, or any damaged condition under Part 174, Subpart C of this chapter,—

(1) Notwithstanding the requirements under § 199.150(b), survival craft launching appliances must be capable of operation;

(2) Falls, where used, must be long enough for survival craft to reach the water; and

(3) Lifeboats with an aggregate capacity that will accommodate the total number of persons permitted on board must be capable of being launched safely, and clear of any obstruction. The location and orientation of each lifeboat must take into consideration the in-water operating capabilities of the lifeboat.

(f) Each launching appliance and supporting structure must not be of aluminum construction.

(g) In place of the embarkation ladders required under § 199.110(e), each unit must be provided with at least two widely separated fixed metal ladders or stairways extending from the deck to the surface of the water. If a fixed ladder can not be installed, the OCMI will approve an alternate means of escape with sufficient capacity to permit all persons permitted on board to safely descend to the waterline.

(1) Each inclined fixed ladder must meet the requirements under § 108.159 of this chapter.

(2) Each vertical fixed ladder must meet the requirements under § 108.160 of this chapter for fixed ladders, except that the vertical bars in cages must be open at least 500 mm (20 in.) on one side throughout the length of the ladder.

(3) An alternate means of escape must have sufficient capacity to permit all persons permitted on board to safely descend to the waterline within 10 minutes from the time the signal to start is given.

(h) Means of abandonment, such as portable slides, safety booms, moveable ladders, elevators, and controlled descent devices must be approved by the Commandant (G-MVI).

SUBCHAPTER D—TANK VESSELS

PART 30—GENERAL PROVISIONS

2. The authority citation for Part 30 is revised to read as follows:

Authority: 46 U.S.C. 3306, 3307; 49 CFR 1.46.

§ 30.01-5 [Amended]

3. By removing and reserving paragraph (b)(3) of § 30.01-5.

4. By adding a new Subpart 30.35 to read as follows:

Subpart 30.35—Lifesaving Appliances and Arrangements

§ 30.35-1 General—TB/ALL.

Lifesaving appliances and arrangements on tank vessels must meet Subchapter W of this chapter.

PART 31—INSPECTION AND CERTIFICATION

5. The authority citation for Part 31 is revised to read as follows:

Authority: 46 U.S.C. 3306, 3307; 49 CFR 1.46.

Subpart 31.01—General

6. By revising paragraph (a) of § 31.01-1 to read as follows:

§ 31.01-1 Inspections required—TB/ALL.

(a) The Coast Guard inspects each tank vessel biennially, annually, or more often if necessary, to determine that it meets the laws, the regulations in this chapter, and the regulations in 33 CFR Chapter I.

7. By adding paragraph (c) to § 31.01-5 to read as follows:

§ 31.01-5 Scope of initial inspections—TB/ALL.

(c) The following tests and inspections and the tests and inspections in § 19.10-15(d)(7) through § 19.10-15(d)(11) must be conducted for each initial inspection for certification. The tests and inspections under paragraph (c)(1) of this section must also be conducted when each new davit or winch is installed on the vessel. The tests and inspections under paragraph (c)(2) of this section must also be conducted when each new free-fall launching system is installed on the vessel. The test under paragraph (c)(3) of this section must also be conducted when each new lifeboat or rescue boat is installed on the vessel. The inspection under paragraph (c)(6) of this section must also be conducted when each new lifeboat, rescue boat, liferaft, davit, winch, or other launching appliance is installed on the vessel. The test under paragraph (c)(7) of this section must also be conducted when each new life buoy quick release device is installed on the vessel.

(1) Each launching appliance using falls and a winch for a rescue boat, davit-launched liferaft, or lifeboat including any auxiliary davit system for a free-fall lifeboat must be tested as follows:

(i) The lifeboat, rescue boat or davit-launched liferaft must be loaded with all of its equipment or the deadweight equivalent. In addition, the davit-launched liferaft must be loaded with a 75 kg (165 lb.) weight to simulate the load of one person. A davit-launched liferaft is not required for this test if an appropriate test weight is used. The boat or liferaft must be lowered from the embarkation station and launched into the water using the normal launching procedure. If a test weight is substituted for the davit-launched liferaft, the weight must be "launched" onto a surface that will support its weight. The rescue boat must then be loaded with the deadweight equivalent of its full rescue boat complement using a weight of 75 kg (165 lb.) per person. In the case of a lifeboat or rescue boat launching appliance, the boat must then be recovered by the launching appliance. In the case of a liferaft launching appliance, the hand-operated quick-return mechanism must be used to recover the fall.

(A) There must be no deformation of or damage to the launching appliance or its connections to the vessel.

(B) The lowering speed must meet § 19.153(j) of this chapter, and the falls must meet § 19.153(g) of this chapter. For a multiple drum winch, the falls must wind off the drums at the same rate when lowering, and wind onto the

drums evenly in a level wrap at the same rate when hoisting.

(C) The release mechanism control in a boat must open all hooks simultaneously and release the boat into the water.

(D) The automatic disengaging apparatus for a davit-launched liferaft must open and release the liferaft or test weight after the apparatus is set to open automatically and the liferaft or test weight is set on the surface.

(E) The recovery of the boat must meet § 19.153(l) of this chapter, and if the boat is a rescue boat, § 19.160(d) of this chapter.

(F) For each launching device equipped to recover a boat by power, including a launching device with a portable power source, the limit switches or other safety devices must automatically cut off the power before the boat reaches the stops to avoid overstressing the falls and davits.

(G) The hand-operated recovery gear for a lifeboat or rescue boat launching appliance must be capable of moving the boat into its stowed position where the boat can be safely and properly secured.

(H) The operation of the hand-operated quick-return mechanism on a davit-launched liferaft launching appliance must be smooth, rapid, and easy enough for one person to recover the fall.

(ii) If the lowering of a lifeboat or rescue boat is controlled from within the boat by a control wire wound on an auxiliary drum on the winch, the launching of the boat must be tested with the boat loaded as under paragraph (c)(1)(i) of this section, but with an operator inside.

(A) The mass of the control wire must be sufficient to overcome the friction of the sheaves used on the control wire when the launching appliance is being operated by the on-deck controls.

(B) The control wire must properly operate the winch brake.

(C) The winch brake must not be affected by the mass of the fully extended control wire.

(D) There must be sufficient length of control wire available inside the boat to operate the winch brake during all stages of lowering.

(E) The free end of the control wire must be retained within the boat until the boat is released from the falls by the operator.

(iii) The test procedure under paragraph (c)(1)(i) of this section must be repeated with the lifeboat, rescue boat or liferaft loaded with weight equivalent to all of its equipment and full complement of persons, plus 10% of

the total weight of the loaded boat or liferaft. In the case of a davit-launched liferaft, the automatic disengaging apparatus must be set to release. The on-deck launching controls must be used for this test, with the boat or liferaft being stopped after it has reached its maximum lowering speed, and then at approximately 2 m (6 ft.) intervals. In the case of a lifeboat or rescue boat, when the boat reaches a position just above the water, it must be released from the falls using the on-load release mechanism control.

(A) There must be no deformation of or damage to the launching appliance or its connections to the vessel.

(B) The lowering speed must meet § 19.153(j) and 19.153(k) of this chapter, and the falls must meet § 19.153(g) of this chapter.

(C) The launching appliance must bring the boat or raft to a stop within 1 m (39 in.) by application of the brake by the winch counterweight alone.

(D) The brake action must be smooth and positive.

(E) The brake must be always applied unless the operator, or a mechanism activated by the operator, holds the brake control in the "off" position.

(F) The boat or raft must begin to lower each time the brake is released. No additional force is permitted.

(G) The release mechanism control in a boat must open all hooks simultaneously and release the boat into the water.

(H) The automatic disengaging apparatus for a davit-launched liferaft must not release the liferaft or test weight until the liferaft or test weight is set on the surface.

(iv) The release apparatus for a davit-launched liferaft must be tested to determine that it will release under a towing strain. The liferaft or test weight loaded as required under paragraph (c)(1)(iii) of this section must be suspended just above the surface and the release apparatus set to open automatically. A horizontal towing strain sufficient to pull the falls 5° from vertical must be applied to the liferaft or test weight and the liferaft lowered. The release apparatus must release the liferaft or test weight as it is set on the surface.

(v) If any winch brake surface is exposed to the weather, the test under paragraph (c)(1)(iii) of this section must be conducted with the brake surfaces dry and repeated with the brake surfaces wet. The brake must stop the winch when the brake surface is wet, but the stopping distance requirement does not apply.

(2) Each free-fall launched lifeboat and launching system must be tested as follows with the vessel at its lightest seagoing draft:

(i) The lifeboat loaded with only its normal equipment or the deadweight equivalent of the equipment, must be launched into the water. After launching, the boat must be retrieved and examined.

(A) The free-fall release mechanism must operate properly and release the boat from the launching appliance.

(B) The launching system must operate smoothly, must launch the boat into the water at the intended angle, and must not show any evidence of improper operation.

(C) The lifeboat must not show any evidence of instability in the air or in the water.

(D) There must be no deformation of or damage to the lifeboat, the launching appliance or its connections to the vessel.

(ii) The procedure under paragraph (c)(2)(i) of this section must be repeated with each seat in the lifeboat loaded with 75 kg (165 lb.) of deadweight properly secured in place to simulate the weight of one person.

(A) The inspections required under paragraphs (c)(2)(i)(A) through (c)(2)(i)(D) of this section must be performed.

(B) Each seat and its mounting arrangements must be closely inspected. There must be no deformation or damage to any seat or its mounting arrangements.

(C) If the inspector has reason to believe that the boat is not being launched in a safe and proper manner, the inspector may order the test under this paragraph (paragraph (c)(2)(ii) of this section) to be repeated with the boat instrumented with acceleration monitoring equipment. The data must be compared with the approval test data to determine whether or not the boat is being launched in a safe and proper manner.

(iii) The procedure under paragraph (c)(2)(i) of this section must be repeated with at least one operator aboard the lifeboat. The rest of the seats in the lifeboat must either be empty, loaded with deadweight, or with personnel to the satisfaction of the inspector. The launching of the lifeboat must be completely controlled by the personnel in the lifeboat.

(A) The inspections required under paragraphs (c)(2)(i)(A) through (c)(2)(i)(D) of this section must be performed.

(B) There must be no injury to any of the personnel in the lifeboat.

(3) Each lifeboat and rescue boat must be operated in the water for at least 2 hr. During this time, the propulsion system must be operated both forward and astern. At least 1 hr. of this running time must be with the propulsion system operating at full speed. Each boat system, such as any powered bilge pump, water spray system, or air supply system, must be operated.

(i) The boat and each of its systems must operate properly without overheating or being damaged.

(ii) The boat must not have any evident leakage through the hull or around any through-hull fitting.

(4) An abandon-ship simulation must be held to determine that all survival craft required for abandonment by the total number of persons permitted on board, can be launched with their full complement of persons and equipment within 10 min. from the time the abandon-ship signal is given.

(i) This simulation must include loading and launching of sufficient survival craft to demonstrate that the requirement can be met.

(ii) This test is not required if the Coast Guard has witnessed a successful test on a sister vessel with the same lifesaving appliance arrangements.

(5) One lifeboat and one rescue boat of each type on board must be launched with the vessel proceeding at a speed of approximately 5 knots. No particular loading of the boat is required. The boat must not give any indication that it is unstable or out of control during the launching procedure.

(6) The installation of each lifeboat, rescue boat, liferaft and launching appliance must be inspected to determine that it meets each condition of its approval, as listed on its Certificate of Approval (Form CGHQ 10030).

(7) The quick release device for ring life buoys required for certain vessels under § 199.70(c) of this chapter, must be tested to demonstrate that the ring life buoy and its attachments drop clear of the side of the vessel when released. A self-activating smoke signal is not required for this test if a dummy device of comparable size and weight is used.

Subpart 31.05—Certificate of Inspection

8. By revising paragraph (a) of § 31.05-1 to read as follows:

§ 31.05-1 Issuance of certificate of inspection—TB/ALL.

(a) When a tank vessel is found to meet the laws, the regulations in this chapter, and applicable regulations in 33 CFR Chapter I, the Officer in Charge,

Marine Inspection issues a certificate of inspection.

Subpart 31.10—Inspections

9. By adding paragraphs (d) and (e) to § 31.10-15 to read as follows:

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

(d) At each inspection for certification, the following inspections and tests must be conducted in the presence of a marine inspector, or as otherwise directed by the OCM:

(1) Each air tank provided for buoyancy on a lifeboat, liferaft, buoyant apparatus or life float, must be tested and demonstrated to be airtight.

(2) Each lifeboat and rescue boat gravity davit including each auxiliary davit system for a free-fall lifeboat, and each davit-launched liferaft launching device must be used to lower the boat or liferaft from its stowed position to a point near the water using the on-deck launching appliance controls. This test must be conducted twice; once with the boat or liferaft loaded with all equipment and additional weight of not more than one person, and a second time with the weight of a full load of persons and equipment. A davit-launched liferaft is not required for this test if an appropriate test weight is used. During the lowering, the brake must be applied and released at least five times.

(i) The launching appliance must bring the boat, liferaft, or test weight to a stop by application of the brake by the winch counterweight alone.

(ii) The brake action must be smooth and positive.

(iii) The brake must be always applied unless the operator, or a mechanism activated by the operator, holds the brake control in the "off" position.

(iv) Lowering must begin each time the brake is released. No additional force is permitted.

(3) Each lifeboat and rescue boat on a davit must be lowered to a point just above the water and evenly loaded until the total weight of the boat equals the "B" weight on the boat data plate. If the boat is equipped with mechanical disengaging apparatus, the release mechanism control must be operated and must open all hooks simultaneously and release the boat into the water properly. There must be no evident damage or deformation of the boat, the launching appliance, or its connections to the vessel.

(4) Each free-fall launched lifeboat and launching system must be tested

with the lifeboat loaded with only its normal equipment or the deadweight equivalent of the equipment. The lifeboat must be launched into the water. After launching, the boat must be retrieved and examined.

(i) The free-fall release mechanism must operate properly and release the boat from the launching appliance.

(ii) The launching system must operate smoothly, must launch the boat into the water at the intended angle, and must not show any evidence of improper operation.

(iii) The lifeboat must not show any evidence of instability in the air or in the water.

(iv) There must be no deformation of or damage to the lifeboat, the launching appliance or its connections to the vessel.

(5) The procedure under paragraph (d)(4) of this section must be repeated with each seat in the lifeboat loaded with 75 kg (165 lb.) of deadweight properly secured in place to simulate the weight of one person.

(i) The inspections required under paragraphs (d)(4)(i) through (d)(4)(iv) of this section must be performed.

(ii) Each seat and its mounting arrangements must be closely inspected. There must be no deformation or damage to any seat or its mounting arrangements.

(6) If the inspector has reason to believe that the free-fall boat is not being launched in a safe and proper manner, the inspector may order the test under paragraphs (d)(4) and (d)(5) of this section to be repeated with the boat instrumented with acceleration monitoring equipment. The data must be compared with the approval test data to determine whether or not the boat is being launched in a safe and proper manner.

(7) The procedure under paragraph (d)(4) of this section must be repeated with at least one operator aboard the lifeboat. The rest of the seats in the lifeboat must either be empty, loaded with deadweight, or with personnel to the satisfaction of the inspector. The launching of the lifeboat must be completely controlled by the personnel in the lifeboat.

(A) The inspections required under paragraphs (d)(4)(i) through (d)(4)(iv) of this section must be performed.

(B) There must be no injury to any of the personnel in the lifeboat.

(8) The air supply system of each gas protected and fire protected lifeboat must be checked by—

(i) determining that the air regulator is operating properly either by discharging one or more of the air supply cylinders

through the regulator, or by checking the flow rate on a test apparatus; and

(ii) making sure each air supply cylinder is fully charged and meets § 147.04-1(a) of this chapter.

(9) The water spray system of each fire protected lifeboat must be checked by operating the pump and determining that all sprinkler heads are operating properly and provide a uniform flow of water over the surface of the lifeboat.

(10) Each davit-launched liferaft launching appliance must be loaded with a weight equal to the liferaft loaded with its full load of persons and equipment. The weight must be lowered to a point just above the water, dock or other surface that will support the weight. The automatic disengaging apparatus control must be set to release, and must open when the weight is lowered to and supported by the surface. There must be no evident damage or deformation of the automatic disengaging apparatus, launching appliance, or its connections to the vessel.

(11) Each lifejacket, immersion suit, and work vest must be examined to determine that it is in serviceable condition. Each lifejacket, immersion suit, and work vest not in serviceable condition must be either repaired, or destroyed and removed from the vessel. The marine inspector may mark the lifejackets, immersion suits, and work vests to indicate that they have been inspected and passed.

(12) The control apparatus for each electrically-controlled launching appliance winch must be opened, inspected, and determined to be in serviceable condition.

(13) Each inflatable liferaft and inflatable lifejacket must be inspected to determine that it has been serviced under § 35.90-80 of this chapter.

(14) Each hydrostatic release unit must be inspected to determine that it has been serviced under § 35.90-90 of this chapter.

(15) Each other item of lifesaving equipment on the vessel must be inspected to determine that it is in serviceable condition. Each item not in serviceable condition must be repaired or replaced. Each item of survival equipment with an expiration date on it must be replaced if the expiration date has passed.

(16) An abandon-ship drill must be held. The marine inspector specifies the nature of the emergency to be simulated.

PART 33—LIFESAVING EQUIPMENT

10. By removing and reserving Part 33.

10a. The following Table of Contents for Part 35 reflects new subparts to read as follows:

PART 35—OPERATIONS

Subpart 35.00—Incorporation by Reference

Sec.

35.00-1 Incorporation by reference.

Subpart 35.01—Special Operating Requirements

* * * * *

Subpart 35.11—Manning of Survival Craft and Supervision

35.11-1 Certificate of proficiency—TB/ALL.

35.11-5 Manning and supervision—TB/ALL.

* * * * *

Subpart 35.90—Operational Readiness, Maintenance and Inspection of Lifesaving Equipment

35.90-20 Operational readiness—TB/ALL.

35.90-30 Maintenance—TB/ALL.

35.90-40 Maintenance of falls—TB/ALL.

35.90-50 Spare parts and repair equipment—TB/ALL.

35.90-60 Weekly Maintenance and inspection—TB/ALL.

35.90-70 Monthly inspections—TB/ALL.

35.90-73 Quarterly inspections—TB/ALL.

35.90-75 Annual inspection and repair—TB/ALL.

35.90-80 Servicing of inflatable liferafts, inflatable lifejackets and inflated rescue boats—TB/ALL.

35.90-90 Periodic servicing of hydrostatic release units—TB/ALL.

11. The authority citation for Part 35 continues to read as follows:

Authority: 46 U.S.C. 3306, 3703; 49 CFR 1.46.

12. By adding Subpart 35.00 to read as follows:

Subpart 35.00—Incorporation by Reference

§ 35.00-1 Incorporation by reference.

(a) Certain materials are incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than the one listed in paragraph (b) of this section, notice of change must be published in the *Federal Register* and the material made available to the public. All approved material is on file at the Office of the Federal Register, 1100 L Street, NW., Washington, DC, and at the U.S. Coast Guard, Merchant Vessel Inspection Division (G-MVI), 2100 Second Street, SW., Washington, DC 20593-0001, and is available from the sources indicated in paragraph (b) of this section.

(b) The material approved for incorporation by reference in this part, and the sections affected are:

American Society for Testing and Materials

1916 Race St., Philadelphia, PA 19103
ASTM D93-80, Test for Flash Point by
Pennsky-Martens Closed Tester—35.25-10.

International Maritime Organization (IMO)

Publications Section, 4 Albert
Embankment, London SE1 7SR, England.
Resolution [LSR 19/WP.4, Annex 3],
"Guidelines Concerning the Use and Fitting
of Retroreflective Materials on Life-saving
Appliances", June 1987—35.40-40; 35.40-50.

National Fire Protection Association

Batterymarch Park, Quincy, MA 02269.
NFPA 306, Control of Gas Hazards on
Vessels, 1975—35.01-1.

Subpart 35.07—Logbook Entries

13. By revising paragraphs (b)(1),
(b)(2), and (b)(6) of § 35.07-10 to read as
follows:

**§ 35.07-10 Actions required to be
logged—TB/ALL.**

* * * * *

(b) * * *

(1) Abandon-ship training and drills,
and fire drills. As held. See §§ 35.10-1
and 35.10-2.

(2) Survival craft winches. Once in
each three months. See § 35.90-73.

* * * * *

(6) Line-throwing appliances. Once in
each three months. See § 35.10-3.

* * * * *

**Subpart 35.10—Fire and Emergency
Requirements**

14. By revising § 35.10-1 to read as
follows:

**§ 35.10-1 Abandon-ship training and
drills—T/ALL.**

(a) Abandon-ship training material
must be on board each vessel. The
training material must consist either of a
manual of one or more volumes, or
audio-visual training aids, or both.

(1) The training material must contain
instructions and information on the
lifesaving appliances on the vessel and
on the best methods of survival. A
training manual must be written in
easily understood terms, illustrated
wherever possible.

(2) If a training manual is used, a copy
must be in each crew messroom and
recreation room or in each crew cabin. If
audio-visual training aids are used they
must be incorporated in the onboard
training sessions under paragraph (d) of
this section.

(3) The training material must explain
the following in detail:

- (i) Donning of the lifejackets and
immersion suits carried on board.
- (ii) Muster at the assigned stations.
- (iii) Boarding, launching, and clearing
the survival craft and rescue boats.

(iv) Method of launching from within
the survival craft.

(v) Release from launching appliances.

(vi) Method and use of devices for
protection in launching areas, where
appropriate.

(vii) Illumination in launching areas.

(viii) Use of all survival equipment.

(ix) Use of all detection equipment.

(x) With illustrations, the use of radio
lifesaving appliances.

(xi) Use of sea anchors.

(xii) Use of engine and accessories.

(xiii) Recovery of survival craft and
rescue boats including stowage and
securing.

(xiv) Hazards of exposure and the
need for warm clothing.

(xv) Best use of the survival craft for
survival.

(xvi) Methods of retrieval, including
the use of helicopter rescue gear (slings,
baskets, stretchers), breeches-buoy and
shore lifesaving apparatus and vessel's
line-throwing apparatus.

(xvii) All other functions contained in
the muster list and emergency
instructions.

(xviii) Instructions for emergency
repair of the lifesaving appliances.

(b) An abandon-ship drill must be
conducted on each vessel in alternating
weeks. If a drill cannot be held during
the appointed week due to bad weather
or other unavoidable reason, the drill
must be conducted at the first
opportunity following the time when the
drill would normally have been held.

(1) Any member of the crew excused
from an abandon-ship drill must
participate in the next drill, so that each
member participates in at least one
abandon-ship drill each month. If more
than 25% of the crew have not
participated in an abandon-ship drill on
board that particular vessel in the
previous month, a drill must be
conducted before the vessel leaves port
if reasonable and practicable, but not
later than 24 hours after the vessel
leaves port. The Commandant (G-MVI)
may accept other arrangements that are
at least equivalent for those vessels
where this is impractical.

(2) On a vessel on an international
voyage, musters of the passengers must
take place within 24 hours after their
embarkation. Passengers must be
instructed in the use of the lifejackets
and the action to take in an emergency.
The passengers must be encouraged to
participate fully in the abandon-ship
drill. If only a small number of
passengers embark at a port after the
original muster has been held, the
attention of these passengers must be
drawn to the emergency instructions
required under § 199.80(a) and 199.80(c)

of this chapter if another muster is not
held.

(3) On each vessel not on an
international voyage, a muster of the
passengers must be held on departure,
or else—

(i) For voyages of more than one day's
duration, musters of the passengers
must be in accordance with paragraph
(b)(2) of this section as for vessels on an
international voyage; and

(ii) For voyages of less than one day's
duration, the attention of the passengers
must be drawn to the emergency
instructions required under § 199.80(a)
and 199.80(c) of this chapter.

(4) Each abandon-ship drill must
include:

(i) Summoning of passengers and crew
to muster stations with the general
alarm and making sure that they are
made aware of how the order to
abandon ship is given, as specified in
the station bill.

(ii) Simulation of an abandon-ship
emergency which varies from drill to
drill.

(iii) Reporting to stations, preparing
for, and demonstrating the duties
assigned under the procedure described
in the station bill for the particular
abandon-ship emergency being
simulated.

(iv) Checking to see that passengers
and crew are suitably dressed.

(v) Checking to see that lifejackets are
correctly donned.

(vi) Lowering of at least one lifeboat
after any necessary preparation for
launching. The lifeboat must be lowered
at least to the extent where the davit
head has completed its travel and the
fall wire has begun to pay out.

(vii) Starting and operating the
lifeboat engine.

(viii) Operation of davits used for
launching liferafts.

(5) Different lifeboats must, as far as
practicable, be lowered to meet
paragraph (b)(3)(v) of this section at
successive drills.

(6) Each abandon-ship drill must, as
far as practicable, be conducted as if
there were an actual emergency.

(7) Each lifeboat must be launched
with its assigned operating crew aboard
and maneuvered in the water at least
once every 3 months during an abandon-
ship drill.

(8) Each rescue boat that is not also a
lifeboat must be launched with its
assigned crew aboard and maneuvered
in the water—

(i) Once each month, if reasonable
and practicable; but

(ii) At least once every 3 months.

(9) If lifeboat and rescue boat
launching drills are carried out with the

vessel making headway, such drills must, because of the dangers involved, be practiced only in waters where it is safe, under the supervision of an officer experienced in such drills.

(10) At least one drill every 3 months must be held at night, unless the master determines it is unsafe.

(11) Emergency lighting for mustering and abandonment must be tested at each abandon-ship drill.

(c) The master of a vessel carrying immersion suits shall make sure that—

(1) Each crew member either—

(i) Wears an immersion suit in at least one abandon-ship drill per month unless it is impracticable due to warm weather; or

(ii) Participates in at least one immersion suit drill per month that includes donning an immersion suit and being instructed in its use;

(2) In each abandon-ship drill, each passenger on board is instructed in the use of immersion suits; and

(3) Each passenger is told at the beginning of the voyage where immersion suits are stowed on board and is encouraged to read the instructions for donning and use of the immersion suits.

(d) Each crew member on board the vessel must be given training in the use of lifesaving appliances and the duties assigned in the station bill.

(1) Except as provided under paragraph (d)(2) of this section, onboard training in the use of the vessel's lifesaving appliances, including survival craft equipment, must be given to each crew member as soon as possible, but not later than 2 weeks after the crew member joins the vessel.

(2) If a crew member is on a regularly scheduled rotating assignment to a vessel, onboard training in the use of the vessel's lifesaving appliances, including survival craft equipment, must be given to the crew member not later than 2 weeks after the time the crew member first joins the vessel.

(3) The crew must be instructed in the use of the vessel's lifesaving appliances and in survival at sea on alternating weeks, normally in the weeks when abandon-ship drills are not held. If individual instruction sessions cover different parts of the vessel's lifesaving system, all the vessel's lifesaving equipment and appliances must be covered within each 2 month period. Each member of the crew must be instructed in at least—

(i) Operation and use of the vessel's inflatable liferafts;

(ii) Problems of hypothermia, first-aid treatment for hypothermia and other appropriate first-aid procedures; and

(iii) Special instructions necessary for use of the vessel's lifesaving appliances in severe weather and severe sea conditions.

(4) Onboard training in the use of davit-launched liferafts must take place at intervals of not more than 4 months on each vessel with davit-launched liferafts. Whenever practicable this must include the inflation and lowering of a liferaft. If this liferaft is a special liferaft intended for training purposes only, and is not part of the vessel's lifesaving equipment, this liferaft must be conspicuously marked.

(e) The date when musters are held, details of abandon-ship drills, drills of other lifesaving appliances and onboard training must be recorded in the vessel's official logbook. Each logbook entry must include the following, as applicable:

(1) The time and date.

(2) Length of drill or training session.

(3) Identification of survival craft used in drills.

(4) Subject of training session.

(5) Statement as to the condition of the equipment used.

(6) If a full muster, drill or training session is not held at the appointed time, the circumstances and the extent of the muster, drill or training session held.

15. By adding a new § 35.10-2 to read as follows:

§ 35.10-2 Fire drills.

(a) A fire drill must be conducted on each vessel in alternating weeks. The fire drill must not be conducted as part of the abandon-ship drill, nor immediately prior to or after the abandon-ship drill. If a fire drill can not be held during the appointed week due to bad weather or other unavoidable reason, the drill must be conducted at the first opportunity following the time when the drill would normally have been held.

(b) Any member of the crew excused from a fire drill must participate in the next drill, so that each member participates in at least one fire drill each month. If more than 25% of the crew have not participated in a fire drill on board that particular vessel in the previous month, a drill must be conducted before the vessel leaves port if reasonable and practicable, but not later than 24 hours after the vessel leaves port. The Commandant (G-MVI) may accept other arrangements that are at least equivalent for those vessels where this is impractical.

(c) Each fire drill must include:

(1) Summoning of passengers and crew to their stations with the general alarm.

(2) Simulation of a fire emergency which varies from drill to drill.

(3) Reporting to stations, preparing for, and demonstrating the duties assigned under the procedure described in the station bill for the particular fire emergency being simulated.

(4) Starting of fire pumps and use of a sufficient number of outlets to determine that the system is in proper working order.

(5) Bringing out each breathing apparatus and other item of rescue and safety equipment from the emergency equipment lockers, and demonstrating the use of each item by the person or persons designated to use it.

(6) Operating each watertight door used while the vessel is underway.

(7) Operation of each self-closing fire door.

(8) Closing all fire doors and doors in fire boundaries.

(d) Each fire drill must, as far as practicable, be conducted as if there were an actual emergency.

(e) The date when fire drills are held, and details of fire drills must be recorded in the vessel's official logbook. Each logbook entry must include the following, as applicable:

(1) The time and date.

(2) Length of drill.

(3) Number and lengths of hose used.

(4) Statement as to the condition of the equipment used.

(5) If a full drill is not held at the appointed time, the circumstances and the extent of the drill held.

16. By redesignating § 35.10-3 as § 35.10-4 and adding a new § 35.10-3 to read as follows:

§ 35.10-3 Line throwing appliance drills—T/ALL.

(a) The master of a vessel carrying a line-throwing appliance shall make sure that the crew is drilled in its use at least once every three months. The actual firing of the appliance is at the discretion of the master.

(b) Each line-throwing appliance drill must be recorded in the vessel's logbook.

17. By revising § 35.10-5 to read as follows:

§ 35.10-5 Emergency signals—T/ALL.

(a) The various signals used to call the crew to their stations and to give instructions to the crew must be listed on the station bill required under § 199.80(b) of this chapter. The signals must be as follows:

(1) The fire and emergency signal must consist of a continuous blast of the whistle for not less than 10 seconds followed by the continuous ringing of

the general alarm bells for not less than 10 seconds.

(2) The signal for dismissal from fire alarm stations must consist of ringing of the general alarm bells three times, followed by three short blasts of the whistle.

(3) The signal for boat stations or boat drill must consist of a succession of more than six short blasts, followed by one long blast of the whistle, followed by the same signal on the general alarm bells.

(4) A man-overboard signal must be established.

(5) An abandon-ship signal must be established.

(6) The signal to lower lifeboats or davit launched liferafts must consist of one short blast of the whistle.

(7) The signal to stop lowering lifeboats or davit launched liferafts must consist of two short blasts of the whistle.

(8) The signal for dismissal from boat stations must consist of three short blasts of the whistle.

(9) Each other emergency signal must not conflict with navigational signals or other general alarm signals.

(b) For vessels in river service where a whistle is not used, the ship's bell must be used for the whistle signals described under paragraph (a) of this section.

§ 35.10-6 [Removed]

18. By removing § 35.10-6.

§ 35.10-7 [Removed]

19. By removing § 35.10-7.

§ 35.10-9 [Removed]

20. By removing § 35.10-9.

§ 35.10-20 [Removed]

21. By removing § 35.10-20.

§ 35.10-25 [Removed]

22. By removing § 35.10-25.

§ 35.10-30 [Removed]

23. By removing § 35.10-30.

24. By adding Subpart 35.11 to read as follows:

Subpart 35.11—Manning of Survival Craft and Supervision

§ 35.11-1 Certificate of proficiency—TB/ALL.

A merchant mariner's document endorsement as a lifeboatman or another inclusive rating under Part 12 of this Title is evidence of training in survival craft and serves as a certificate of proficiency. For the purposes of this subpart, a "certificated person" is a person holding a merchant mariner's document with such an endorsement.

§ 35.11-5 Manning and supervision—TB/ALL.

(a) There must be a sufficient number of trained persons on board for mustering and assisting untrained persons.

(b) There must be a sufficient number of deck officers, able seamen, or certificated persons on board to operate the survival craft and launching arrangements required for abandonment by the total number of persons permitted on board.

(c) One person must be placed in charge of each survival craft to be used.

(1) Except for vessels in river service, the person in command must be a deck officer, able seaman, or certificated person.

(2) A deck officer, able seaman, or certificated person must be designated second-in-command for—

(i) Each lifeboat on a vessel in ocean service; and

(ii) Except on a vessel in river service, each lifeboat permitted to carry more than 40 persons.

(3) Each vessel that carries passengers and is not in river service, must have at least one deck officer, able seaman, or certificated person for every 20 passengers assigned to each lifeboat.

(d) The person in charge of each survival craft shall have a list of the survival craft crew and shall see that the crewmembers are acquainted with their duties. The second-in-command of a lifeboat shall also have a list of the lifeboat crew.

(e) Each motorized survival craft must have a person assigned who is capable of operating the engine and carrying out minor adjustments.

(f) The master shall make sure the persons required under paragraphs (a), (b), and (c) of this section are equitably distributed among the vessel's survival craft.

Subpart 35.40—Marking of Fire and Emergency Equipment.

25. By adding a new § 35.40-19 to read as follows:

§ 35.40-19 Fire hoses and fire axes—TB/ALL.

Fire hoses and fire axes must be marked with the vessel's name.

26. By revising § 35.40-40 to read as follows:

§ 35.40-40 Lifeboats and rescue boats—TB/ALL.

(a) The following must be plainly marked or painted on each side of the bow of each lifeboat and rescue boat in letters and numbers at least 75 mm (3 in.) high:

(1) The name of the vessel.

(2) The number of the boat. The boats on each side of the vessel must be numbered from forward to aft. If there are boats on both sides of the vessel, the odd numbers must be on the starboard side.

(3) For vessels in ocean service, the name of the port is required to be marked on the stern of the vessel under Subpart 67.13 of this chapter.

(b) The following must be plainly marked or painted on each side of the bow of each lifeboat and rescue boat in letters and numbers at least 35 mm (1.5 in.) high:

(1) The length and beam of the boat.

(2) The number of persons capacity of the boat. This number must—

(i) Be the number of persons the lifeboat is equipped for; and

(ii) Not be greater than the number of persons the boat is approved for, as shown on its nameplate.

(c) The following must be plainly marked or painted on each lifeboat and rescue boat in at least two places visible from above the boat in letters and numbers not less than 75 mm (3 in.) high:

(1) The number of persons capacity of the boat.

(2) The name of the vessel.

(d) The name of the vessel must be plainly marked or painted on each oar and paddle.

(e) On or before July 1, 1991, each lifeboat and rescue boat must be marked with Type II retroreflective material approved under Subpart 164.018 of this chapter. The arrangement of the retroreflective material must meet IMO Resolution [LSR 19/WP.4, Annex 3].

27. By adding a new § 35.40-43 to read as follows:

§ 35.40-43 Rigid liferafts—TB/ALL.

(a) The following must be plainly marked or painted near one entrance of each rigid liferaft in letters and numbers at least 75 mm (3 in.) high:

(1) The name of the vessel.

(2) The number of the liferaft. Liferafts stowed on the sides of the vessel must be numbered in the same manner as the lifeboats.

(3) For vessels in ocean service, the name of the port required to be marked on the stern of the vessel under Subpart 67.13 of this chapter.

(b) The following must be plainly marked or painted near one entrance of each rigid liferaft in letters and numbers at least 35 mm (1.5 in.) high:

(1) Either "SOLAS A Pack" or "SOLAS B Pack" depending upon its equipment under § 199.143(b) or § 199.143(c) of this chapter.

(2) The length of the painter.

(c) The number of persons capacity must be plainly marked or painted over each entrance to each rigid liferaft in letters and numbers at least 100 mm (4 in.) high, in a color contrasting to that of the liferaft. This number must—

- (1) Be the number of persons the liferaft is equipped for; and
- (2) Not be greater than the number of persons the liferaft is approved for, as shown on its nameplate.

(d) The name of the vessel must be plainly marked or painted on each paddle.

28. By adding a new § 35.40-45 to read as follows:

§ 35.40-45 Inflatable liferafts—TB/ALL.

The number of the liferaft and the number of persons it is permitted to accommodate must be marked or painted in a conspicuous place in the immediate vicinity of each inflatable liferaft in letters and numbers at least 35 mm (1.5 in.) high. Liferafts stowed on the sides of the vessel must be numbered in the same manner as the lifeboats. This marking must not be on the inflatable liferaft container.

29. By adding a new § 35.40-48 to read as follows:

§ 35.40-48 Life floats and buoyant apparatus—TB/ALL.

(a) The name of the vessel must be plainly marked or painted on each life float and buoyant apparatus, together with their oars and paddles.

(b) The number of persons capacity must be plainly marked or painted on each life float and buoyant apparatus in letters and numbers at least 35 mm (1.5 in.) high. This number must—

- (1) Be the number of persons the device is equipped for; and
- (2) Not be greater than the number of persons the device is approved for, as shown on its nameplate.

30. By adding a new § 35.40-50 to read as follows:

§ 35.40-50 Lifejackets, immersion suits, and ring life buoys—TB/ALL.

(a) Each lifejacket, immersion suit, and ring life buoy must be marked in block capital letters with the vessel's name.

(b) Each container for lifejackets and immersion suits must be marked in letters and numbers at least 50 mm (2 in.) high with the number and identification of the items stowed inside and their size.

(c) Each ring life buoy on a vessel in ocean service must be marked in block capital letters with the name of the port required to be marked on the stern of the vessel under Subpart 67.13 of this chapter.

(d) Each stowage position for a ring life buoy must be marked "LIFE BUOY".

(e) Each lifejacket must be marked with Type I retroreflective material approved under Subpart 164.018 of this chapter. The arrangement of the retroreflective material must meet IMO Resolution (LSR 19/WP.4, Annex 3).

(f) On or before July 1, 1991, each ring life buoy must be marked with Type II retroreflective material approved under Subpart 164.018 of this chapter. The arrangement of the retroreflective material must meet IMO Resolution (LSR 19/WP.4, Annex 3).

Note.—Each approved immersion suit is provided with retroreflective material by the manufacturer of the suit.

31. By adding a new § 35.40-55 to read as follows:

§ 35.40-55 EPIRBs and SARTs—TB/ALL.

The name of the vessel must be plainly marked or painted on each Emergency Position Indicating Radio Beacon (EPIRB) and on each Search and Rescue Transponder (SART), except for an EPIRB or SART—

- (a) In an inflatable liferaft; or
- (b) Permanently installed in a survival craft.

32. By adding a new Subpart 35.90 to read as follows:

Subpart 35.90—Operational Readiness, Maintenance and Inspection of Lifesaving Equipment

§ 35.90-20 Operational readiness—TB/ALL.

(a) Except as provided in § 35.90-30(e), each lifesaving appliance and each item of survival craft, rescue boat, life float, and buoyant apparatus equipment must be in good working order and ready for immediate use before the vessel leaves port and at all times when the vessel is in navigation.

(b) Each deck where lifeboats, liferafts, life floats, and buoyant apparatus are stowed or boarded must be kept clear of obstructions that would interfere with the boarding and launching of the lifesaving appliances.

(c) If lifeboats are used to carry persons to and from the vessel when the vessel is in a harbor or at an anchorage, a sufficient number of lifeboats and liferafts must be available for use on each side of the vessel to accommodate all persons remaining on board.

§ 35.90-30 Maintenance—TB/ALL.

(a) The manufacturer's instructions for onboard maintenance of lifesaving appliances must be onboard and must include the following for each appliance—

(1) Checklists for use when carrying out the inspections required under § 35.90-70(a);

(2) Maintenance and repair instructions;

(3) A schedule of periodic maintenance;

(4) A diagram of lubrication points with the recommended lubricants;

(5) A list of replaceable parts;

(6) A list of sources of spare parts; and

(7) A log for records of inspections and maintenance.

(b) The master shall make sure that maintenance is carried out in accordance with the instructions required under paragraph (a) of this section.

(c) For lifesaving appliances constructed on or before July 1, 1986, paragraph (a) of this section need only be complied with to the extent that the manufacturer's instructions are available.

(d) The OCMI may accept, instead of the instructions required under paragraph (a) of this section, a shipboard planned maintenance program that includes the items listed in that paragraph.

(e) If lifeboats, rescue boats, and rigid liferafts are maintained and repaired while the vessel is underway, a sufficient number of lifeboats and liferafts must be available for use on each side of the vessel to accommodate all persons on board.

(f) Except in an emergency, extensive repairs or alterations must not be made to any lifesaving appliance without advance notification of the OCMI. Insofar as possible, each repair or alteration must be made in accordance with the requirements for the lifesaving appliance in Subchapter Q of this chapter. The OCMI may require each lifesaving appliance that has been altered or extensively repaired to be subjected to each test for the appliance in Subchapter Q of this chapter that is affected by the repair or alteration.

(g) The master shall report each emergency repair or alteration to a lifesaving appliance as soon as practicable to the OCMI in the next port in the United States where the vessel calls. If the vessel does not regularly call at ports in the United States, the report must be made to the OCMI responsible for one of the foreign ports where the vessel calls.

(h) A lifeboat or rigid liferaft must not be repaired or reconditioned for use on a vessel other than the one it was originally built for, unless specifically permitted by the OCMI. If required by the OCMI, the repair or reconditioning

of the lifeboat or rigid liferaft must be made under the OCM's supervision.

§ 35.90-40 Maintenance of falls—TB/ALL.

(a) Each fall used in a launching appliance must be turned end for end at intervals of not more than 30 months.

(b) Each fall must be renewed when necessary due to deterioration or at intervals of not more than 5 years, whichever is the earlier.

(c) Each fall must have a corrosion-resistant tag with the following permanently marked on it:

(1) The date the new fall was installed.

(2) If the fall has been turned end for end, the date it was turned.

§ 35.90-50 Spare parts and repair equipment—TB/ALL.

Spare parts and repair equipment must be provided for each lifesaving appliance and component subject to excessive wear or consumption and that needs to be replaced regularly. These parts and equipment must be kept on board the vessel, or, if the vessel operates daily out of the same shore base, these parts and equipment may be kept at the shore base.

§ 35.90-60 Weekly maintenance and inspection—TB/ALL.

The following tests and inspections must be carried out weekly:

(a) Each survival craft, rescue boat and launching appliance must be visually inspected to ensure its readiness for use.

(b) Each lifeboat engine and rescue boat engine must be run ahead and astern for not less than 3 min., unless the ambient temperature is below the minimum temperature required for starting the engine.

(c) The general alarm system must be tested.

(d) Each battery for lifeboat and rescue boat engine starting, searchlights, fixed lifeboat radio installations, and portable radio apparatus must be brought up to full charge at least once each week if—

(1) The battery is of a type that requires recharging; and

(2) The battery is not connected to a device that keeps it continuously charged.

(e) The transmitter of each fixed lifeboat radio installation and portable radio apparatus must be tested at least once each week using a dummy antenna load.

§ 35.90-70 Monthly inspections—TB/ALL.

(a) Each lifesaving appliance, including lifeboat equipment, must be inspected monthly using the checklist required under § 35.90-30(a)(1) to make

sure it is complete and in good order. A report of the inspection, including a statement as to the condition of the equipment, must be recorded in the vessel's official logbook.

(b) Each EPIRB and each SART, other than an EPIRB or SART in an inflatable liferaft, must be tested monthly. The EPIRB must be tested using the integrated test circuit and output indicator to determine that it is operative.

§ 35.90-73 Quarterly inspections—TB/ALL.

(a) Each lifeboat winch control apparatus, including motor controllers, emergency switches, master switches, and limit switches must be examined once each three months.

(b) The examination must include the removal of drain plugs and the opening of drain valves to make sure that enclosures are free of water.

(c) The date of the examination required under this section and the condition of the equipment must be noted in the official logbook.

§ 35.90-75 Annual inspection and repair—TB/ALL.

(a) Each lifeboat, rescue boat, rigid liferaft, buoyant apparatus and life float must be stripped, cleaned, and thoroughly inspected and repaired as needed at least once each year, including emptying and cleaning of each fuel tank, and refilling it with fresh fuel.

(b) Each davit, winch, fall and other launching appliance must be thoroughly inspected and repaired as needed once each year.

(c) Each item of survival equipment with an expiration date must be replaced during the annual inspection and repair if the expiration date has passed.

(d) Each battery used in an item of survival equipment and clearly marked with a date identified as an expiration date must be replaced during the annual inspection and repair if the expiration date has passed.

(e) Except for a storage battery used in a lifeboat or rescue boat, each battery without an expiration date used in an item of survival equipment must be replaced during the annual inspection and repair.

(f) The requirements in this section do not relieve the master or person in charge of the requirement under § 35.90-20(a) to keep the equipment ready for immediate use.

§ 35.90-80 Servicing of inflatable liferafts, inflatable lifejackets and inflated rescue boats—TB/ALL.

(a) Each inflatable liferaft, inflatable lifejacket, and hybrid inflatable

lifejacket or work vest must be serviced—

(1) Within 12 months of its initial packing; and

(2) Within 12 months of each subsequent servicing, except when servicing is delayed until the next scheduled inspection of the vessel, provided the delay does not exceed 5 months.

(b) Each inflatable liferaft must be serviced—

(1) Whenever the container of the raft is damaged, or the straps or seal broken; and

(2) In accordance with the servicing procedure under Subpart 160.051 of this chapter.

(c) Each inflatable lifejacket must be serviced in accordance with the servicing procedure under Subpart 160.076 of this chapter.

(d) Each hybrid inflatable lifejacket or work vest must be serviced in accordance with the servicing procedure under Subpart 160.077 of this chapter.

(e) Repair and maintenance of inflated rescue boats must be in accordance with the manufacturer's instructions. All repairs must be made at a servicing facility approved by the Commandant (G-MVI), except for emergency repairs carried out on board the vessel.

§ 35.90-90 Periodic servicing of hydrostatic release units—TB/ALL.

(a) Each hydrostatic release unit must be serviced—

(1) Within 12 months of its manufacture and within 12 months of each subsequent servicing, except when servicing is delayed until the next scheduled inspection of the vessel, provided the delay does not exceed 5 months; and

(2) In accordance with the repair and testing procedures under Subpart 160.062 of this chapter.

(b) The springs of each spring-tensioned gripe used with a hydrostatic release unit must be renewed when the unit is serviced and tested.

SUBCHAPTER H—PASSENGER VESSELS

PART 70—GENERAL PROVISIONS

33. The authority citation for Part 70 is revised to read as follows:

Authority: 46 U.S.C. 3306; 49 CFR 1.46.

34. By revising § 70.10-43 to read as follows:

§ 70.10-43 Short international voyage.

A short international voyage is an international voyage in the course of which a vessel is not more than 200 miles from a port or place in which the passengers and crew could be placed in

safety. Neither the distance between the last port of call in the country in which the voyage begins and the final port of destination nor the return voyage must exceed 600 miles. The final port of destination is the last port of call in the scheduled voyage at which the vessel begins its return voyage to the country in which the voyage began.

35. By adding a new Subpart 70.28 to read as follows:

Subpart 70.28—Lifesaving Appliances and Arrangements.

§ 70.28-1 General.

Lifesaving appliances and arrangements on passenger vessels must meet Subchapter W of this chapter.

PART 71—INSPECTION AND CERTIFICATION

36. The authority citation for Part 71 is revised to read as follows:

Authority: 46 U.S.C. 2113, 3306; 49 CFR 1.46.

Subpart 71.20—Initial Inspection

37. By revising paragraph (a)(1) of § 71.20-20 to read as follows:

§ 71.20-20 Specific tests and inspections.

(a) * * *

(1) The following tests and inspections and the tests and inspections in § 71.25-15(a)(5) through § 71.25-15(a)(9) must be conducted for each initial inspection for certification. The tests and inspections under paragraph (a)(1)(i) of this section must also be conducted when each new davit, winch, or other launching appliance is installed on the vessel. The test under paragraph (a)(1)(ii) of this section must also be conducted when each new lifeboat or rescue boat is installed on the vessel. The inspection under paragraph (a)(1)(v) of this section must also be conducted when each new lifeboat, rescue boat, liferaft, davit, winch, or other launching appliance is installed on the vessel. The test under paragraph (a)(1)(vi) of this section must also be conducted when each new life buoy quick release device is installed on the vessel.

(i) Each launching appliance using falls and a winch for a rescue boat, davit-launched liferaft, or lifeboat must be tested as follows:

(A) The lifeboat, rescue boat or davit-launched liferaft must be loaded with all of its equipment or the deadweight equivalent. In addition, the davit-launched liferaft must be loaded with a 75 kg (165 lb.) weight to simulate the load of one person. A davit-launched liferaft is not required for this test if an appropriate test weight is used. The boat or liferaft must be lowered from the

embarkation station and launched into the water using the normal launching procedure. If a test weight is substituted for the davit-launched liferaft, the weight must be "launched" onto a surface that will support its weight. The rescue boat must then be loaded with the deadweight equivalent of its full rescue boat complement using a weight of 75 kg (165 lb.) per person. In the case of a lifeboat or rescue boat launching appliance, the boat must then be recovered by the launching appliance. In the case of a liferaft launching appliance, the hand-operated quick-return mechanism must be used to recover the fall.

(1) There must be no deformation or damage to the launching appliance or its connections to the vessel.

(2) The lowering speed must meet § 199.153(j) of this chapter, and the falls must meet § 199.153(g) of this chapter. For a multiple drum winch, the falls must wind off the drums at the same rate when lowering, and wind onto the drums evenly in a level wrap at the same rate when hoisting.

(3) The release mechanism control in a boat must open all hooks simultaneously and release the boat into the water.

(4) The automatic disengaging apparatus for a davit-launched liferaft must open and release the liferaft or test weight after the apparatus is set to open automatically and the liferaft or test weight is set on the surface.

(5) The recovery of the boat must meet § 199.153(1) of this chapter, and if the boat is a rescue boat, § 199.160(d) of this chapter.

(6) For each launching device equipped to recover a boat by power, including a launching device with a portable power source, the limit switches or other safety devices must automatically cut off the power before the boat reaches the stops to avoid overstressing the falls and davits.

(7) The hand-operated recovery gear for a lifeboat or rescue boat launching appliance must be capable of moving the boat into its stowed position where the boat can be safely and properly secured.

(8) The operation of the hand-operated quick-return mechanism on a davit-launched liferaft launching appliance must be smooth, rapid, and easy enough for one person to recover the fall.

(B) If the lowering of a lifeboat or rescue boat is controlled from within the boat by a control wire wound on an auxiliary drum on the winch, the launching of the boat must be tested with the boat loaded as under paragraph

(a)(1)(i)(A) of this section, but with an operator inside.

(1) The mass of the control wire must be sufficient to overcome the friction of the sheaves used on the control wire when the launching appliance is being operated by the on-deck controls.

(2) The control wire must properly operate the winch brake.

(3) The winch brake must not be affected by the mass of the fully extended control wire.

(4) There must be sufficient length of control wire available inside the boat to operate the winch brake during all stages of lowering.

(5) The free end of the control wire must be retained within the boat until the boat is released from the falls by the operator.

(C) The test procedure under paragraph (a)(1)(i)(A) of this section must be repeated with the lifeboat, rescue boat or liferaft loaded with weight equivalent to all of its equipment and full complement of persons, plus 10% of the total weight of the loaded boat or liferaft. In the case of a davit-launched liferaft, the automatic disengaging apparatus must be set to release. The on-deck launching controls must be used for this test, with the boat or liferaft being stopped after it has reached its maximum lowering speed, and then at approximately 2 m (6 ft.) intervals. In the case of a lifeboat or rescue boat, when the boat reaches a position just above the water, it must be released from the falls using the on-load release mechanism control.

(1) There must be no deformation or damage to the launching appliance or its connections to the vessel.

(2) The lowering speed must meet §§ 199.153(i) and 199.153(k) of this chapter, and the falls must meet § 199.153(g) of this chapter.

(3) The launching appliance must bring the boat or raft to a stop within 1 m (39 in.) by application of the brake by the winch counterweight alone.

(4) The brake action must be smooth and positive.

(5) The brake must be always applied unless the operator, or a mechanism activated by the operator, holds the brake control in the "off" position.

(6) The boat or raft must begin to lower each time the brake is released. No additional force is permitted.

(7) The release mechanism control in a boat must open all hooks simultaneously and release the boat into the water.

(8) The automatic disengaging apparatus for a davit-launched liferaft must not release the liferaft or test

weight until the liferaft or test weight is set on the surface.

(D) The release apparatus for a davit launched liferaft must be tested to determine that it will release under a towing strain. The liferaft or test weight loaded as required under paragraph (a)(1)(i)(C) of this section must be suspended just above the surface and the release apparatus set to open automatically. A horizontal towing strain sufficient to pull the falls 5° from vertical must be applied to the liferaft or test weight and the liferaft lowered. The release apparatus must release the liferaft or test weight as it is set on the surface.

(E) If any winch brake surface is exposed to the weather, the test under paragraph (a)(1)(i)(C) of this section must be conducted with the brake surfaces dry and repeated with the brake surfaces wet. The brake must stop the winch when the brake surface is wet, but the stopping distance requirement does not apply.

(ii) Each lifeboat and rescue boat must be operated in the water for at least 2 hrs. During this time, the propulsion system must be operated both forward and astern. At least 1 hr. of this running time must be with the propulsion system operating at full speed. Each boat system, such as any powered bilge pump, water spray system, or air supply system, must be operated.

(A) The boat and each of its systems must operate properly without overheating or being damaged.

(B) The boat must not have any evident leakage through the hull or around any through-hull fitting.

(iii) An abandon-ship simulation must be held to determine that all survival craft required for abandonment by the total number of persons permitted on board, can be launched with their full complement of persons and equipment within 30 min. from the time the abandon-ship signal is given.

(A) This simulation must include loading and launching of sufficient survival craft to demonstrate that the requirement can be met.

(B) This test is not required if the Coast Guard has witnessed a successful test on a sister vessel with the same lifesaving appliance arrangements.

(iv) One lifeboat and one rescue boat of each type on board must be launched with the vessel proceeding at a speed of approximately 5 knots. No particular loading of the boat is required. The boat must not give any indication that it is unstable or out of control during the launching procedure.

(v) The installation of each lifeboat, rescue boat, liferaft and launching appliance must be inspected to

determine that it meets each condition of its approval, as listed on its Certificate of Approval (Form CGHQ 10030).

(vi) The quick release device for ring life buoys required for certain vessels under § 199.70(c) of this chapter, must be tested to demonstrate that the ring life buoy and its attachments drop clear of the side of the vessel when released. A self-activating smoke signal is not required for this test if a dummy device of comparable size and weight is used.

Subpart 71.25—Annual Inspection

38. By revising § 71.25-15 to read as follows:

§ 71.25-15 Lifesaving equipment.

(a) At each inspection for certification, the following inspections and tests must be conducted in the presence of a marine inspector, or as otherwise directed by the OCM:

(1) Each air tank provided for buoyancy on a lifeboat, liferaft, buoyant apparatus or life float, must be tested and demonstrated to be airtight.

(2) Each lifeboat and rescue boat gravity davit, and each davit-launched liferaft launching device must be used to lower the boat or liferaft from its stowed position to a point near the water using the on-deck launching appliance controls. This test must be conducted twice; once with the boat or liferaft loaded with all equipment and additional weight of not more than one person, and a second time with the weight of a full load of persons and equipment. A davit-launched liferaft is not required for this test if an appropriate test weight is used. During the lowering, the brake must be applied and released at least five times.

(i) The launching appliance must bring the boat, liferaft, or test weight to a stop by application of the brake by the winch counterweight alone.

(ii) The brake action must be smooth and positive.

(iii) The brake must be always applied unless the operator, or a mechanism activated by the operator, holds the brake control in the "off" position.

(iv) Lowering must begin each time the brake is released. No additional force is permitted.

(3) Each lifeboat and rescue boat must be lowered to a point just above the water and evenly loaded until the total weight of the boat equals the "B" weight on the boat data plate. If the boat is equipped with mechanical disengaging apparatus, the release mechanism control must be operated and must open all hooks simultaneously and release the

boat into the water properly. There must be no evident damage or deformation of the boat, the launching appliance, or its connections to the vessel.

(4) Each davit-launched liferaft launching appliance must be loaded with a weight equal to the liferaft loaded with its full load of persons and equipment. The weight must be lowered to a point just above the water, dock or other surface that will support the weight. The automatic disengaging apparatus control must be set to release, and must open when the weight is lowered to and supported by the surface. There must be no evident damage or deformation of the automatic disengaging apparatus, launching appliance, or its connections to the vessel.

(5) Each lifejacket, immersion suit, and work vest must be examined to determine that it is in serviceable condition. Each lifejacket, immersion suit, and work vest not in serviceable condition must be either repaired, or destroyed and removed from the vessel. The marine inspector may mark the lifejackets, immersion suits, and work vests to indicate that they have been inspected and passed.

(6) The control apparatus for each electrically-controlled launching appliance winch must be opened, inspected, and determined to be in serviceable condition.

(7) Each inflatable liferaft and inflatable lifejacket must be inspected to determine that it has been serviced under § 78.95-80 of this chapter.

(8) Each hydrostatic release unit must be inspected to determine that it has been serviced under § 78.95-90 of this chapter.

(9) Each other item of lifesaving equipment on the vessel must be inspected to determine that it is in serviceable condition. Each item not in serviceable condition must be repaired or replaced. Each item of survival equipment with an expiration date on it must be replaced if the expiration date has passed.

(10) An abandon-ship drill must be held. The marine inspector specifies the nature of the emergency to be simulated.

PART 75—LIFESAVING EQUIPMENT

39. By removing and reserving Part 75.

39a. The following Table of Contents for Part 78 reflects new or revised subparts to read as follows:

PART 78—OPERATIONS**Subpart 78.00—Incorporation by Reference**

Sec.

78.00-1 Incorporation by reference.

* * * * *

Subpart 78.13—Emergency Signals

78.13-1 Emergency signals.

Subpart 78.14—Manning of Survival Craft and Supervision

78.14-1 Certificate of proficiency.

78.14.5 Manning and supervision.

* * * * *

Subpart 78.95—Operational Readiness, Maintenance and Inspection of Lifesaving Equipment

78.95-20 Operational readiness.

78.95-30 Maintenance.

78.95-40 Maintenance of falls.

78.95-50 Spare parts and repair equipment.

78.95-60 Weekly maintenance and inspection.

78.95-70 Monthly inspections.

78.95-73 Quarterly inspections.

78.95-75 Annual inspection and repair.

78.95-80 Servicing of inflatable liferafts, inflatable buoyant apparatus, inflatable lifejackets and inflated rescue boats.

78.95-90 Periodic servicing of hydrostatic release units.

40. The authority citation for Part 78 is revised to read as follows:

Authority: 46 U.S.C. 3306, 6101; 49 CFR 1.46.

41. By adding Subpart 78.00 to read as follows:

Subpart 78.00—Incorporation by Reference**§ 78.00-1 Incorporation by reference.**

(a) Certain materials are incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than the one listed in paragraph (b) of this section, notice of change must be published in the *Federal Register* and the material made available to the public. All approved material is on file at the Office of the Federal Register, 1100 L Street, NW., Washington, DC, and at the U.S. Coast Guard, Merchant Vessel Inspection Division (G-MVI), 2100 Second Street, SW., Washington, DC 20593-0001, and is available from the sources indicated in paragraph (b) of this section.

(b) The material approved for incorporation by reference in this part, and the sections affected are:

American Society for Testing and Materials
1916 Race St., Philadelphia, PA 19103
ASTM D93-80, Test for Flash Point by
Pennsky-Martens Closed Tester: 78.17-75.

International Maritime Organization (IMO)

Publications Section, 4 Albert Embankment,
London SE1 7SR, England

Resolution [LSR 19/WP.4, Annex 3].

"Guidelines Concerning the Use and Fitting of Retroreflective Materials on Life-saving Appliances", June 1987; 78.47-60; 78.47-65.

42. By revising Subpart 78.13 to read as follows:

Subpart 78.13—Emergency Signals**§ 78.13-1 Emergency signals.**

(a) *General.* The various signals used to call the crew to their stations and to give instructions to the crew must be listed on the station bill required under § 199.80 of this chapter. The signals must be as follows:

(1) The fire and emergency signal must consist of a continuous blast of the whistle for not less than 10 seconds followed by the continuous ringing of the general alarm bells for not less than 10 seconds.

(2) The signal for dismissal from fire alarm stations must consist of ringing of the general alarm bells three times, followed by three short blasts of the whistle.

(3) The signal for boat stations or boat drill must consist of a succession of more than six short blasts, followed by one long blast of the whistle, followed by the same signal on the general alarm bells.

(4) A man-overboard signal must be established.

(5) An abandon-ship signal must be established.

(6) The signal to lower lifeboats or davit launched liferafts must consist of one short blast of the whistle.

(7) The signal to stop lowering lifeboats or davit launched liferafts must consist of two short blasts of the whistle.

(8) The signal for dismissal from boat stations must consist of three short blasts of the whistle.

(9) Each other emergency signal established must not conflict with navigational signals or other general alarm signals.

(b) *River service.* For vessels in river service where a whistle is not used, the ship's bell must be used for the whistle signals described in this section.

43. By revising Subpart 78.14 to read as follows:

Subpart 78.14—Manning of Survival Craft and Supervision**§ 78.14-1 Certificate of proficiency.**

A merchant mariner's document endorsement as a lifeboatman or another inclusive rating under Part 12 of this Title is evidence of training in

survival craft and serves as a certificate of proficiency. For the purposes of this subpart, a "certificated person" is a person holding a merchant mariner's document with such an endorsement.

§ 78.14-5 Manning and supervision.

(a) There must be a sufficient number of trained persons on board for mustering and assisting untrained persons.

(b) There must be a sufficient number of deck officers, able seamen, or certificated persons on board to operate the survival craft and launching arrangements required for abandonment by the total number of persons permitted on board.

(c) One person must be placed in charge of each survival craft to be used.

(1) Except for vessels in river service, the person in command must be a deck officer, able seaman, or certificated person.

(2) The OCMI, considering the nature of the voyage, the number of persons permitted on board and the characteristics of the vessel, may permit persons practiced in the handling and operation of liferafts to be placed in charge of liferafts instead of persons required under paragraph (c)(1) of this section.

(3) A deck officer, able seaman, or certificated person must be designated second-in-command for—

(i) Each lifeboat on a vessel in ocean service; and

(ii) Except on a vessel in river service, each lifeboat permitted to carry more than 40 persons.

(4) Each vessel that is not in river service, must have a least one deck officer, able seaman, or certificated person for every 20 passengers assigned to each lifeboat.

(d) The person in charge of each survival craft shall have a list of the survival craft crew and shall see that the crewmembers are acquainted with their duties. The second-in-command of a lifeboat shall also have a list of the lifeboat crew.

(e) Each lifeboat required to carry a radiotelegraph installation under § 199.250 of this chapter must have a person assigned who is capable of operating the equipment.

(f) Each motorized survival craft must have a person assigned who is capable of operating the engine and carrying out minor adjustments.

(g) The master shall make sure the persons required under paragraphs (a), (b), and (c) of this section are equitably distributed among the vessel's survival craft.

Subpart 78.17—Tests, Drills, and Inspections

§ 78.17-40 [Amended]

44. By removing paragraph (a)(3) of § 78.17-40.

45. By revising § 78.17-50 to read as follows:

§ 78.17-50 Abandon-ship training and drills.

(a) Abandon-ship training material must be on board each vessel. The training material must consist either of a manual of one or more volumes, or audio-visual training aids, or both.

(1) The training material must contain instructions and information on the lifesaving appliances on the vessel and on the best methods of survival. A training manual must be written in easily understood terms, illustrated wherever possible.

(2) If a training manual is used, a copy must be in each crew messroom and recreation room or in each crew cabin. If audio-visual training aids are used they must be incorporated in the onboard training sessions under paragraph (d) of this section.

(3) The training material must explain the following in detail:

- (i) Donning of the lifejackets and immersion suits carried on board.
- (ii) Muster at the assigned stations.
- (iii) Boarding, launching, and clearing the survival craft and rescue boats.
- (iv) Method of launching from within the survival craft.
- (v) Release from launching appliances.
- (vi) Method and use of devices for protection in launching areas, where appropriate.
- (vii) Illumination in launching areas.
- (viii) Use of all survival equipment.
- (ix) Use of all detection equipment.
- (x) With illustrations, the use of radio lifesaving appliances.
- (xi) Use of sea anchors.
- (xii) Use of engine and accessories.
- (xiii) Recovery of survival craft and rescue boats including stowage and securing.
- (xiv) Hazards of exposure and the need for warm clothing.
- (xv) Best use of the survival craft for survival.

(xvi) Methods of retrieval, including the use of helicopter rescue gear (slings, baskets, stretchers), breeches-buoy and shore lifesaving apparatus and vessel's line-throwing apparatus.

(xvii) All other functions contained in the muster list and emergency instructions.

(xviii) Instructions for emergency repair of the lifesaving appliances.

(b) An abandon-ship drill must be conducted on each vessel at least once

each week. If a drill cannot be held during any week due to bad weather or other unavoidable reason, the drill must be conducted at the first opportunity following the time when the drill would normally have been held.

(1) Any member of the crew excused from an abandon-ship drill must participate in a later drill, so that each member participates in at least one abandon-ship drill each month. If more than 25% of the crew have not participated in an abandon-ship drill on board that particular vessel in the previous month, a drill must be conducted before the vessel leaves port if reasonable and practicable, but not later than 24 hours after the vessel leaves port. The Commandant (G-MVI) may accept other arrangements that are at least equivalent for those vessels where this is impractical.

(2) On a vessel on an international voyage that is not a short international voyage, musters of the passengers must take place within 24 hours after their embarkation. Passengers must be instructed in the use of the lifejackets and the action to take in an emergency. The passengers must be encouraged to participate fully in the abandon-ship drill. If only a small number of passengers embark at a port after the original muster has been held, the attention of these passengers must be drawn to the emergency instructions required under §§ 199.80(a) and 199.80(c) of this chapter if another muster is not held.

(3) On each vessel on a short international voyage, and on each other vessel not on an international voyage, a muster of the passengers must be held on departure, or else—

- (i) For voyages of more than one day's duration, musters of the passengers must be in accordance with paragraph (b)(2) of this section as for vessels on an international voyage; and
- (ii) For voyages of less than one day's duration, the attention of the passengers must be drawn to the emergency instructions required under § 199.80(a) and 199.80(c) of this chapter.

(4) Each abandon-ship drill must include:

- (i) Summoning of passengers and crew to muster stations with the general alarm and making sure that they are made aware of how the order to abandon ship is given, as specified in the station bill.
- (ii) Simulation of an abandon-ship emergency which varies from drill to drill.
- (iii) Reporting to stations, preparing for, and demonstrating the duties assigned under the procedure described in the station bill for the particular

abandon-ship emergency being simulated.

(iv) Checking to see that passengers and crew are suitably dressed.

(v) Checking to see that lifejackets are correctly donned.

(vi) Lowering of at least one lifeboat after any necessary preparation for launching. The lifeboat must be lowered at least to the extent where the davit head has completed its travel and the fall wire has begun to pay out.

(vii) Starting and operating the lifeboat engine.

(viii) Operation of davits used for launching liferafts.

(5) Different lifeboats must, as far as practicable, be lowered to meet paragraph (b)(4)(v) of this section at successive drills.

(6) Each abandon-ship drill must, as far as practicable, be conducted as if there were an actual emergency.

(7) Each lifeboat must be launched with its assigned operating crew aboard and maneuvered in the water at least once every 3 months during an abandon-ship drill. Except for vessels on international voyages which are not short international voyages, the OCMI may allow a vessel not to launch the lifeboats on one side of the vessel if the berthing arrangements in port and the trading pattern does not permit launching of lifeboats on that side. However, each such lifeboat must be lowered at least once every 3 months and launched at least annually.

(8) Each rescue boat that is not also a lifeboat must be launched with its assigned crew aboard and maneuvered in the water—

- (i) Once each month, if reasonable and practicable; but
- (ii) At least once every 3 months.

(9) If lifeboat and rescue boat launching drills are carried out with the vessel making headway, such drills must, because of the dangers involved, be practiced only in waters where it is safe, under the supervision of an officer experienced in such drills.

(10) At least one drill every 3 months must be held at night, unless the master determines it is unsafe.

(11) Emergency lighting for mustering and abandonment must be tested at each abandon-ship drill.

(c) The master of a vessel carrying immersion suits shall make sure that—

(1) Each crew member either—

(i) Wears an immersion suit in at least one abandon-ship drill per month unless it is impracticable due to warm weather; or

(ii) Participates in at least one immersion suit drill per month that

includes donning an immersion suit and being instructed in its use;

(2) If immersion suits are carried for passengers—

(i) In each abandon-ship drill, passengers are instructed in the use of immersion suits; and

(ii) Passengers are told at the beginning of the voyage where immersion suits are stowed on board and are encouraged to read the instructions for donning and use of the immersion suits.

(d) The master of a vessel carrying thermal protective aids shall make sure that—

(1) In each abandon-ship drill, passengers are instructed in the use of thermal protective aids; and

(2) Passengers are told at the beginning of the voyage where thermal protective aids are stowed on board and are encouraged to read the instructions for donning and use of the thermal protective aids.

(e) Each crew member on board the vessel must be given training in the use of lifesaving appliances and the duties assigned in the station bill.

(1) Except as provided under paragraph (e)(2) of this section, onboard training in the use of the vessel's lifesaving appliances, including survival craft equipment, must be given to each crew member as soon as possible, but not later than 2 weeks after the crew member joins the vessel.

(2) If a crew member is on a regularly scheduled rotating assignment to a vessel, onboard training in the use of the vessel's lifesaving appliances, including survival craft equipment, must be given to the crew member not later than 2 weeks after the time the crew member first joins the vessel.

(3) The crew must be instructed in the use of the vessel's lifesaving appliances and in survival at sea at the same interval as the abandon-ship drills. If individual instruction sessions cover different parts of the vessel's lifesaving system, all the vessel's lifesaving equipment and appliances must be covered within each 2 month period. Each member of the crew must be instructed in at least—

(i) Operation and use of the vessel's inflatable liferafts;

(ii) Problems of hypothermia, first-aid treatment for hypothermia and other appropriate first-aid procedures; and

(iii) Special instructions necessary for use of the vessel's lifesaving appliances in severe weather and severe sea conditions.

(4) Onboard training in the use of davit-launched liferafts must take place at intervals of not more than 4 months on each vessel with davit-launched

liferafts. Whenever practicable this must include the inflation and lowering of a liferaft. If this liferaft is a special liferaft intended for training purposes only, and is not part of the vessel's lifesaving equipment, this liferaft must be conspicuously marked.

(f) The date when musters are held, details of abandon-ship drills, drills of other lifesaving appliances and onboard training must be recorded in the vessel's official logbook. Each logbook entry must include the following, as applicable:

(1) The time and date.

(2) Length of drill or training session.

(3) Identification of survival craft used in drills.

(4) Subject of training session.

(5) Statement as to the condition of the equipment used.

(6) If a full muster, drill or training session is not held at the appointed time, the circumstances and the extent of the muster, drill or training session held.

§ 78.17-52 [Removed]

46. By removing § 78.17-52.

47. By revising § 78.17-55 to read as follows:

§ 78.17-55 Fire drills.

(a) A fire drill must be conducted on each vessel at least once each week. The fire drill must not be conducted as part of the abandon-ship drill. If a fire drill cannot be held during any week due to bad weather or other unavoidable reason, the drill must be conducted at the first opportunity following the time when the drill would normally have been held.

(b) Any member of the crew excused from a fire drill must participate in a later drill, so that each member participates in at least one fire drill each month. If more than 25% of the crew have not participated in a fire drill on board that particular vessel in the previous month, a drill must be conducted before the vessel leaves port if reasonable and practicable, but not later than 24 hours after the vessel leaves port. The Commandant (G-MVI) may accept other arrangements that are at least equivalent for those vessels where this is impractical.

(c) Each fire drill must include:

(1) Summoning of passengers and crew to their stations with the general alarm.

(2) Simulation of a fire emergency which varies from drill to drill.

(3) Reporting to stations, preparing for, and demonstrating the duties assigned under the procedure described

in the station bill for the particular fire emergency being simulated.

(4) Starting of fire pumps and use of a sufficient number of outlets to determine that the system is in proper working order.

(5) Bringing out each breathing apparatus and other item of rescue and safety equipment from the emergency equipment lockers, and demonstrating the use of each item by the person or persons designated to use it.

(6) Operating each watertight door used while the vessel is underway.

(7) Operation of each self-closing fire door.

(8) Closing all fire doors and doors in fire boundaries.

(d) Each fire drill must, as far as practicable, be conducted as if there were an actual emergency.

(e) The date when fire drills are held, and details of fire drills must be recorded in the vessel's official logbook. Each logbook entry must include the following, as applicable:

(1) The time and date.

(2) Length of drill.

(3) Number and lengths of hose used.

(4) Statement as to the condition of the equipment used.

(5) If a full drill is not held at the appointed time, the circumstances and the extent of the drill held.

§ 78.17-60 [Removed]

48. By removing § 78.17-60.

§ 78.17-70 [Removed]

49. By removing § 78.17-70.

§ 78.17-85 [Removed]

50. By removing § 78.17-85.

§ 78.17-90 [Removed]

51. By removing § 78.17-90.

52. By revising paragraphs (a)(1) and (a)(10) of § 78.37-5 to read as follows:

§ 78.37-5 Actions required to be logged.

(a) * * *

(1) Abandon-ship training and drills, and fire drills. As held. See §§ 78.17-50, and 78.17-55.

* * *

(10) Survival craft winches. Once in each three months. See § 78.95-73.

* * *

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

§ 78.47-47 [Removed]

53. By removing § 78.47-47.

§ 78.47-50 [Removed]

54. By removing § 78.47-50.

§ 78.47-51 [Removed]

55. By removing § 78.47-51.

56. By revising § 78.47-60 to read as follows:

§ 78.47-60 Lifeboats and rescue boats.

(a) The following must be plainly marked or painted on each side of the bow of each lifeboat and rescue boat in letters and numbers at least 75 mm (3 in.) high:

(1) The name of the vessel.

(2) The number of the boat. The boats on each side of the vessel must be numbered from forward to aft. If there are boats on both sides of the vessel, the odd numbers must be on the starboard side.

(3) For vessels in ocean service, the name of the port required to be marked on the stern of the vessel under Subpart 67.13 of this chapter.

(b) The following must be plainly marked or painted on each side of the bow of each lifeboat and rescue boat in letters and numbers at least 35 mm (1.5 in.) high:

(1) The length and beam of the boat.

(2) The number of persons capacity of the boat. This number must—

(i) Be the number of persons the lifeboat is equipped for; and

(ii) Not be greater than the number of persons the boat is approved for, as shown on its nameplate.

(c) The following must be plainly marked or painted on each lifeboat and rescue boat in at least two places visible from above the boat in letters and numbers not less than 75 mm (3 in.) high:

(1) The number of persons capacity of the boat.

(2) The name of the vessel.

(d) The name of the vessel must be plainly marked or painted on each oar and paddle.

(e) On or before July 1, 1991, each lifeboat and rescue boat must be marked with Type II retroreflective material approved under Subpart 164.018 of this chapter. The arrangement of the retroreflective material must meet IMO Resolution [LSR 19/WP.4, Annex 3].

57. By adding a new § 78.47-62 to read as follows:

§ 78.47-62 Rigid liferafts.

(a) The following must be plainly marked or painted near one entrance of each rigid liferaft in letters and numbers at least 75 mm (3 in.) high:

(1) The name of the vessel.

(2) The number of the liferaft. Liferafts stowed on the sides of the vessel must be numbered in the same manner as the lifeboats.

(3) For vessels in ocean service, the name of the port required to be marked

on the stern of the vessel under Subpart 67.13 of this chapter.

(b) The following must be plainly marked or painted near one entrance of each rigid liferaft in letters and numbers at least 35 mm (1.5 in.) high.

(1) Either "SOLAS A Pack" or "SOLAS B Pack" depending upon its equipment under § 199.143(b) or § 199.143(c) of this chapter.

(2) The length of the painter.

(c) The number of persons capacity must be plainly marked or painted over each entrance to each rigid liferaft in letters and numbers at least 100 mm (4 in.) high, in a color contrasting to that of the liferaft. This number must—

(1) Be the number of persons the liferaft is equipped for; and

(2) Not be greater than the number of persons the liferaft is approved for, as shown on its nameplate.

(d) The name of the vessel must be plainly marked or painted on each paddle.

58. By revising § 78.47-63 to read as follows:

§ 78.47-63 Inflatable liferafts.

The number of the liferaft and the number of persons it is permitted to accommodate must be marked or painted in a conspicuous place in the immediate vicinity of each inflatable liferaft in letters and numbers at least 35 mm (1.5 in.) high. Liferafts stowed on the sides of the vessel must be numbered in the same manner as the lifeboats. This marking must not be on the inflatable liferaft container.

59. By adding a new § 78.47-64 to read as follows:

§ 78.47-64 Life floats and buoyant apparatus.

(a) The name of the vessel must be plainly marked or painted on each life float and buoyant apparatus, together with their oars and paddles.

(b) The number of persons capacity must be plainly marked or painted on each life float and buoyant apparatus in letters and numbers at least 35 mm (1.5 in.) high. This number must—

(1) Be the number of persons the device is equipped for; and

(2) Not be greater than the number of persons the device is approved for, as shown on its nameplate.

60. By revising § 78.47-65 to read as follows:

§ 78.47-65 Lifejackets, immersion suits, and ring life buoys.

(a) Each lifejacket, immersion suit, and ring life buoy must be marked in block capital letters with the vessel's name.

(b) Each container for lifejackets and immersion suits must be marked in

letters and numbers at least 50 mm (2 in.) high with the number and identification of the items stowed inside and their size.

(c) Each ring life buoy on a vessel in ocean service must be marked in block capital letters with the name of the port required to be marked on the stern of the vessel under Subpart 67.13 of this chapter.

(d) Each stowage position for a ring life buoy must be marked "LIFE BUOY".

(e) Each lifejacket must be marked with Type I retroreflective material approved under Subpart 164.018 of this chapter. The arrangement of the retroreflective material must meet IMO Resolution [LSR 19/WP.4, Annex 3].

(f) On or before July 1, 1991, each ring life buoy must be marked with Type II retroreflective material approved under Subpart 164.018 of this chapter. The arrangement of the retroreflective material must meet IMO Resolution [LSR 19/WP.4, Annex 3].

Note: Each approved immersion suit is provided with retroreflective material by the manufacturer of the suit.

61. By revising § 78.47-72 to read as follows:

§ 78.47-72 EPIRBs and SARTs.

The name of the vessel must be plainly marked or painted on each Emergency Position Indicating Radio Beacon (EPIRB) and on each Search and Rescue Transponder (SART), except for an EPIRB or SART—

(a) In an inflatable liferaft; or

(b) Permanently installed in a survival craft.

§ 78.49-1 [Removed]

62. By removing Subpart 78.49 (consisting of § 78.49-1).

§§ 78.87-1, 78.87-5, and 78.87-10 [Removed]

63. By removing Subpart 78.87 (consisting of §§ 78.87-1, 78.87-5, and 78.87-10).

64. By adding a new Subpart 78.95 to read as follows:

Subpart 78.95—Operational Readiness, Maintenance and Inspection of Lifesaving Equipment**§ 78.95-20 Operational readiness.**

(a) Except as provided in § 78.95-30(e), each lifesaving appliance and each item of survival craft, rescue boat, life float, and buoyant apparatus equipment must be in good working order and ready for immediate use before the vessel leaves port and at all times when the vessel is in navigation.

(b) Each deck where lifeboats, liferafts, life floats, and buoyant apparatus are stowed or boarded must be kept clear of obstructions that would interfere with the boarding and launching of the lifesaving appliances.

(c) If lifeboats are used to carry persons to and from the vessel when the vessel is in a harbor or at an anchorage, there must be a sufficient number of lifeboats and liferafts available for use to accommodate all persons remaining on board.

§ 78.95-30 Maintenance.

(a) The manufacturer's instructions for onboard maintenance of lifesaving appliances must be onboard and must include the following for each appliance—

(1) Checklists for use when carrying out the inspections required under § 78.95-70(a);

(2) Maintenance and repair instructions;

(3) A schedule of periodic maintenance;

(4) A diagram of lubrication points with the recommended lubricants;

(5) A list of replaceable parts;

(6) A list of sources of spare parts; and

(7) A log for records of inspections and maintenance.

(b) The master shall make sure that maintenance is carried out in accordance with the instructions required under paragraph (a) of this section.

(c) For lifesaving appliances constructed on or before July 1, 1986, paragraph (a) of this section need only be complied with to the extent that the manufacturer's instructions are available.

(d) The OCMI may accept, instead of the instructions required under paragraph (a) of this section, a shipboard planned maintenance program that includes the items listed in that paragraph.

(e) If lifeboats, rescue boats, and rigid liferafts are maintained and repaired while the vessel is underway, there must be a sufficient number of lifeboats and liferafts available for use to accommodate all persons on board.

(f) Except in an emergency, extensive repairs or alterations must not be made to any lifesaving appliance without advance notification of the OCMI. Insofar as possible, each repair or alteration must be made in accordance with the requirements for the lifesaving appliance in Subchapter Q of this chapter. The OCMI may require each lifesaving appliance that has been altered or extensively repaired to be subjected to each test for the appliance

in Subchapter Q of this chapter that is affected by the repair or alteration.

(g) The master shall report each emergency repair or alteration to a lifesaving appliance as soon as practicable to the OCMI in the next port in the United States where the vessel calls. If the vessel does not regularly call at ports in the United States, the report must be made to the OCMI responsible for one of the foreign ports where the vessel calls.

(h) A lifeboat or rigid liferaft must not be repaired or reconditioned for use on a vessel other than the one it was originally built for, unless specifically permitted by the OCMI. If required by the OCMI, the repair or reconditioning of the lifeboat or rigid liferaft must be made under the OCMI's supervision.

§ 78.95-40 Maintenance of falls.

(a) Each fall used in a launching appliance must be turned end for end at intervals of not more than 30 months.

(b) Each fall must be renewed when necessary due to deterioration or at intervals of not more than 5 years, whichever is the earlier.

(c) Each fall must have a corrosion-resistant tag with the following permanently marked on it:

(1) The date the new fall was installed.

(2) If the fall has been turned end for end, the date it was turned.

§ 78.95-50 Spare parts and repair equipment.

Spare parts and repair equipment must be provided for each lifesaving appliance and component subject to excessive wear or consumption and that needs to be replaced regularly. These parts and equipment must be kept on board the vessel, or, if the vessel operates daily out of the same shore base, these parts and equipment may be kept at the shore base.

§ 78.95-60 Weekly maintenance and inspection.

The following tests and inspections must be carried out weekly:

(a) Each survival craft, rescue boat and launching appliance must be visually inspected to ensure its readiness for use.

(b) Each lifeboat engine and rescue boat engine must be run ahead and astern for not less than 3 min., unless the ambient temperature is below the minimum temperature required for starting the engine.

(c) The general alarm system must be tested.

(d) Each battery for lifeboat and rescue boat engine starting, searchlights, fixed lifeboat radio installations, and

portable radio apparatus must be brought up to full charge at least once each week if—

(1) The battery is of a type that requires recharging; and

(2) The battery is not connected to a device that keeps it continuously charged.

(e) The transmitter of each fixed lifeboat radio installation and portable radio apparatus must be tested at least once each week using a dummy antenna load.

§ 78.95-70 Monthly inspections.

(a) Each lifesaving appliance, including lifeboat equipment, must be inspected monthly using the checklist required under § 78.95-30(a)(1) to make sure it is complete and in good order. A report of the inspection, including a statement as to the condition of the equipment, must be recorded in the vessel's official logbook.

(b) Each EPIRB and each SART other than an EPIRB or SART in an inflatable liferaft, must be tested monthly. The EPIRB must be tested using the integrated test circuit and output indicator to determine that it is operative.

§ 78.95-73 Quarterly inspections.

(a) Each lifeboat winch control apparatus, including motor controllers, emergency switches, master switches, and limit switches must be examined once each three months.

(b) The examination must include the removal of drain plugs and the opening of drain valves to make sure that enclosures are free of water.

(c) The date of the examination required under this section and the condition of the equipment must be noted in the official logbook.

§ 78.95-75 Annual inspection and repair.

(a) Each lifeboat, rescue boat, rigid liferaft, buoyant apparatus, and life float must be stripped, cleaned, and thoroughly inspected and repaired as needed at least once each year, including emptying and cleaning of each fuel tank, and refilling it with fresh fuel.

(b) Each davit, winch, fall and other launching appliance must be thoroughly inspected and repaired as needed once each year.

(c) Each item of survival equipment with an expiration date must be replaced during the annual inspection and repair if the expiration date has passed.

(d) Each battery used in an item of survival equipment and clearly marked with a date identified as an expiration date must be replaced during the annual

inspection and repair if the expiration date has passed.

(e) Except for a storage battery used in a lifeboat or rescue boat, each battery without an expiration date used in an item of survival equipment must be replaced during the annual inspection and repair.

(f) The requirements in this section do not relieve the master or person in charge of the requirement under § 78.95-20(a) to keep the equipment ready for immediate use.

§ 78.95-80 Servicing of inflatable liferafts, inflatable buoyant apparatus, inflatable lifejackets and inflated rescue boats.

(a) Each inflatable liferaft, inflatable lifejacket, and hybrid inflatable lifejacket or work vest must be serviced—

(1) Within 12 months of its initial packing; and

(2) Within 12 months of each subsequent servicing, except when servicing is delayed until the next scheduled inspection of the vessel, provided that the delay does not exceed 5 months.

(b) Each inflatable liferaft must be serviced—

(1) Whenever the container of the raft is damaged, or the straps or seal broken; and

(2) In accordance with the servicing procedure under Subpart 160.051 of this chapter.

(c) Each inflatable lifejacket must be serviced in accordance with the servicing procedure under Subpart 160.076 of this chapter.

(d) Each hybrid inflatable lifejacket or work vest must be serviced in accordance with the servicing procedure under Subpart 160.077 of this chapter.

(e) Repair and maintenance of inflated rescue boats must be in accordance with the manufacturer's instructions. All repairs must be made at a servicing facility approved by the Commandant (G-MVI), except for emergency repairs carried out on board the vessel.

§ 78.95-90 Periodic servicing of hydrostatic release units.

(a) Each hydrostatic release unit must be serviced—

(1) Within 12 months of its manufacture and within 12 months of each subsequent servicing, except when servicing is delayed until the next scheduled inspection of the vessel, provided that the delay does not exceed 5 months; and

(2) In accordance with the repair and testing procedures under Subpart 160.062 of this chapter.

(b) The springs of each spring-tensioned gripe used with a hydrostatic

release unit must be renewed when the unit is serviced and tested.

SUBCHAPTER I—CARGO AND MISCELLANEOUS VESSELS

PART 90—GENERAL PROVISIONS

65. The authority citation for Part 90 is revised to read as follows:

Authority: 46 U.S.C. 3306, 3703; 49 CFR 1.46.

66. By adding a new Subpart 90.27 to read as follows:

Subpart 90.27—Lifesaving Appliances and Arrangements

§ 90.27-1 General.

Lifesaving appliances and arrangements on cargo and miscellaneous vessels must meet Subchapter W of this chapter.

PART 91—INSPECTION AND CERTIFICATION

67. The authority citation for Part 91 is revised to read as follows:

Authority: 46 U.S.C. 3306, 3703; 49 CFR 1.46.

Subpart 91.20—Initial Inspection

68. By revising paragraph (a)(1) of § 91.20-20 to read as follows:

§ 91.20-20 Specific tests and inspections.

(a) * * *

(1) The following tests and inspections and the tests and inspections in § 91.25-15(a)(5) through § 91.25-15(a)(9) must be conducted for each initial inspection for certification. The tests and inspections under paragraph (a)(1)(i) of this section must also be conducted when each new davit, winch, or other launching appliance is installed on the vessel. The test under paragraph (a)(1)(ii) of this section must also be conducted when each new lifeboat or rescue boat is installed on the vessel. The inspection under paragraph (a)(1)(vi) of this section must also be conducted when each new lifeboat, rescue boat, liferaft, davit, winch, or other launching appliance is installed on the vessel. The test under paragraph (a)(1)(vii) of this section must also be conducted when each new life buoy quick release device is installed on the vessel.

(i) Each launching appliance using falls and a winch for a rescue boat, davit-launched liferaft, or lifeboat including any auxiliary davit system for a free-fall lifeboat must be tested as follows:

(A) The lifeboat, rescue boat or davit-launched liferaft must be loaded with all of its equipment or the deadweight equivalent. In addition, the davit-launched liferaft must be loaded with a 75 kg (165 lb.) weight to simulate the

load of one person. A davit-launched liferaft is not required for this test if an appropriate test weight is used. The boat or liferaft must be lowered from the embarkation station and launched into the water using the normal launching procedure. If a test weight is substituted for the davit-launched liferaft, the weight must be "launched" onto a surface that will support its weight. The rescue boat must then be loaded with the deadweight equivalent of its full rescue boat complement using a weight of 75 kg (165 lb.) per person. In the case of a lifeboat or rescue boat launching appliance, the boat must then be recovered by the launching appliance. In the case of a liferaft launching appliance, the hand-operated quick-return mechanism must be used to recover the fall.

(1) There must be no deformation of or damage to the launching appliance or its connections to the vessel.

(2) The lowering speed must meet § 199.153(j) of this chapter, and the falls must meet § 199.153(g) of this chapter. For a multiple drum winch, the falls must wind off the drums at the same rate when lowering, and wind onto the drums evenly in a level wrap at the same rate when hoisting.

(3) The release mechanism control in a boat must open all hooks simultaneously and release the boat into the water.

(4) The automatic disengaging apparatus for a davit-launched liferaft must open and release the liferaft or test weight after the apparatus is set to open automatically and the liferaft or test weight is set on the surface.

(5) The recovery of the boat must meet § 199.153(1) of this chapter, and if the boat is a rescue boat, § 199.160(d) of this chapter.

(6) For each launching device equipped to recover a boat by power, including a launching device with a portable power source, the limit switches or other safety devices must automatically cut off the power before the boat reaches the stops to avoid overstressing the falls and davits.

(7) The hand-operated recovery gear for a lifeboat or rescue boat launching appliance must be capable of moving the boat into its stowed position where the boat can be safely and properly secured.

(8) The operation of the hand-operated quick-return mechanism on a davit-launched liferaft launching appliance must be smooth, rapid, and easy enough for one person to recover the fall.

(B) If the lowering of a lifeboat or rescue boat is controlled from within the

boat by a control wire wound on an auxiliary drum on the winch, the launching of the boat must be tested with the boat loaded as under paragraph (a)(1)(i)(A) of this section, but with an operator inside.

(1) The mass of the control wire must be sufficient to overcome the friction of the sheaves used on the control wire when the launching appliance is being operated by the on-deck controls.

(2) The control wire must properly operate the winch brake.

(3) The winch brake must not be affected by the mass of the fully extended control wire.

(4) There must be sufficient length of control wire available inside the boat to operate the winch brake during all stages of lowering.

(5) The free end of the control wire must be retained within the boat until the boat is released from the falls by the operator.

(C) The test procedure under paragraph (a)(1)(i)(A) of this section must be repeated with the lifeboat, rescue boat or liferaft loaded with weight equivalent to all of its equipment and full complement of persons, plus 10% of the total weight of the loaded boat or liferaft. In the case of a davit-launched liferaft, the automatic disengaging apparatus must be set to release. The on-deck launching controls must be used for this test, with the boat or liferaft being stopped after it has reached its maximum lowering speed, and then at approximately 2 m (6 ft.) intervals. In the case of a lifeboat or rescue boat, when the boat reaches a position just above the water, it must be released from the falls using the on-load release mechanism control.

(1) There must be no deformation of or damage to the launching appliance or its connections to the vessel.

(2) The lowering speed must meet §§ 199.153(i) and 199.153(k) of this chapter, and the falls must meet § 199.153(g) of this chapter.

(3) The launching appliance must bring the boat or raft to a stop within 1 m (39 in.) by application of the brake by the winch counterweight alone.

(4) The brake action must be smooth and positive.

(5) The brake must be always applied unless the operator, or a mechanism activated by the operator, holds the brake control in the "off" position.

(6) The boat or raft must begin to lower each time the brake is released. No additional force is permitted.

(7) The release mechanism control in a boat must open all hooks simultaneously and release the boat into the water.

(3) The automatic disengaging apparatus for a davit-launched liferaft must not release the liferaft or test weight until the liferaft or test weight is set on the surface.

(D) The release apparatus for a davit launched liferaft must be tested to determine that it will release under a towing strain. The liferaft or test weight loaded as required under paragraph (a)(1)(i)(C) of this section must be suspended just above the surface and the release apparatus set to open automatically. A horizontal towing strain sufficient to pull the falls 5" from vertical must be applied to the liferaft or test weight and the liferaft lowered. The release apparatus must release the liferaft or test weight as it is set on the surface.

(E) If any winch brake surface is exposed to the weather, the test under paragraph (a)(1)(i)(C) of this section must be conducted with the brake surfaces dry and repeated with the brake surfaces wet. The brake must stop the winch when the brake surface is wet, but the stopping distance requirement does not apply.

(ii) Each free-fall launched lifeboat and launching system must be tested as follows with the vessel at its lightest seagoing draft:

(A) The lifeboat loaded with only its normal equipment or the deadweight equivalent of the equipment, must be launched into the water. After launching, the boat must be retrieved and examined.

(1) The free-fall release mechanism must operate properly and release the boat from the launching appliance.

(2) The launching system must operate smoothly, must launch the boat into the water at the intended angle, and must not show any evidence of improper operation.

(3) The lifeboat must not show any evidence of instability in the air or in the water.

(4) There must be no deformation of or damage to the lifeboat, the launching appliance or its connections to the vessel.

(B) The procedure under paragraph (a)(1)(ii)(A) of this section must be repeated with each seat in the lifeboat loaded with 75 kg (165 lb.) of deadweight properly secured in place to simulate the weight of one person.

(1) The inspections required under paragraphs (a)(1)(ii)(A)(1) through (a)(1)(ii)(A)(4) of this section must be performed.

(2) Each seat and its mounting arrangements must be closely inspected. There must be no deformation or damage to any seat or its mounting arrangements.

(3) If the inspector has reason to believe that the boat is not being launched in a safe and proper manner, the inspector may order the test under this paragraph (paragraph (a)(1)(ii)(B) of this section) to be repeated with the boat instrumented with acceleration monitoring equipment. The data must be compared with the approval test data to determine whether or not the boat is being launched in a safe and proper manner.

(C) The procedure under paragraph (a)(1)(ii)(A) of this section must be repeated with at least one operator aboard the lifeboat. The rest of the seats in the lifeboat must be empty, loaded with deadweight, or with personnel to the satisfaction of the inspector. The launching of the lifeboat must be completely controlled by the personnel in the lifeboat.

(7) The inspections required under paragraphs (a)(1)(ii)(A)(1) through (a)(1)(ii)(A)(4) of this section must be performed.

(2) There must be no injury to any of the personnel in the lifeboat.

(iii) Each lifeboat and rescue boat must be operated in the water for at least 2 hr. During this time, the propulsion system must be operated both forward and astern. At least 1 hr. of this running time must be with the propulsion system operating at full speed. Each boat system such as any powered bilge pump, water spray system, or air supply system must be operated.

(A) The boat and each of its systems must operate properly without overheating or being damaged.

(B) The boat must not have any evident leakage through the hull or around any through-hull fitting.

(iv) An abandon-ship simulation must be held to determine that all survival craft required for abandonment by the total number of persons permitted on board, can be launched with their full complement of persons and equipment within 10 min. from the time the abandon-ship signal is given.

(A) This simulation must include loading and launching of sufficient survival craft to demonstrate that the requirement can be met.

(B) This test is not required if the Coast Guard has witnessed a successful test on a sister vessel with the same lifesaving appliance arrangements.

(v) One lifeboat and one rescue boat of each type on board must be launched with the vessel proceeding at a speed of approximately 5 knots. No particular loading of the boat is required. The boat must not give any indication that it is

unstable or out of control during the launching procedure.

(vi) The installation of each lifeboat, rescue boat, liferaft and launching appliance must be inspected to determine that it meets each condition of its approval, as listed on its Certificate of Approval (Form CGHQ 10030).

(vii) The quick release device for ring life buoys required for certain vessels under § 199.70(c) of this chapter, must be tested to demonstrate that the ring life buoy and its attachments drop clear of the side of the vessel when released. A self-activating smoke signal is not required for this test if a dummy device of comparable size and weight is used.

Subpart 91.25—Inspection for Certification

69. By revising § 91.25-15 to read as follows:

§ 91.25-15 Lifesaving equipment.

(a) At each inspection for certification, the following inspections and tests must be conducted in the presence of a marine inspector, or as otherwise directed by the OCMI:

(1) Each air tank provided for buoyancy on a lifeboat, liferaft, buoyant apparatus or life float, must be tested and demonstrated to be airtight.

(2) Each lifeboat and rescue boat gravity davit including each auxiliary davit system for a free-fall lifeboat, and each davit-launched liferaft launching device must be used to lower the boat or liferaft from its stowed position to a point near the water using the on-deck launching appliance controls. This test must be conducted twice; once with the boat or liferaft loaded with all equipment and additional weight of not more than one person, and a second time with the weight of a full load of persons and equipment. A davit-launched liferaft is not required for this test if an appropriate test weight is used. During the lowering, the brake must be applied and released at least five times.

(i) The launching appliance must bring the boat, liferaft, or test weight to a stop by application of the brake by the winch counterweight alone.

(ii) The brake action must be smooth and positive.

(iii) The brake must be always applied unless the operator, or a mechanism activated by the operator, holds the brake control in the "off" position.

(iv) Lowering must begin each time the brake is released. No additional force is permitted.

(3) Each lifeboat and rescue boat on a davit must be lowered to a point just

above the water and evenly loaded until the total weight of the boat equals the "B" weight on the boat data plate. If the boat is equipped with mechanical disengaging apparatus, the release mechanism control must be operated and must open all hooks simultaneously and release the boat into the water properly. There must be no evident damage or deformation of the boat, the launching appliance, or its connections to the vessel.

(4) Each free-fall launched lifeboat and launching system must be tested with the lifeboat loaded with only its normal equipment or the deadweight equivalent of the equipment. The lifeboat must be launched into the water. After launching, the boat must be retrieved and examined.

(i) The free-fall release mechanism must operate properly and release the boat from the launching appliance.

(ii) The launching system must operate smoothly, must launch the boat into the water at the intended angle, and must not show any evidence of improper operation.

(iii) The lifeboat must not show any evidence of instability in the air or in the water.

(iv) There must be no deformation of or damage to the lifeboat, the launching appliance or its connections to the vessel.

(5) The procedure under paragraph (a)(4) of this section must be repeated with each seat in the lifeboat loaded with 75 kg (165 lb.) of deadweight properly secured in place to simulate the weight of one person.

(i) The inspections required under paragraphs (a)(4)(i) through (a)(4)(iv) of this section must be performed.

(ii) Each seat and its mounting arrangements must be closely inspected. There must be no deformation or damage to any seat or its mounting arrangements.

(6) If the inspector has reason to believe that the free-fall boat is not being launched in a safe and proper manner, the inspector may order the test under paragraphs (a)(4) and (a)(5) of this section to be repeated with the boat instrumented with acceleration monitoring equipment. The data must be compared with the approval test data to determine whether or not the boat is being launched in a safe and proper manner.

(7) The procedure under paragraph (a)(4) of this section must be repeated with at least one operator aboard the lifeboat. The rest of the seats in the lifeboat must either be empty, loaded with deadweight, or with personnel to the satisfaction of the inspector. The launching of the lifeboat must be

completely controlled by the personnel in the lifeboat.

(A) The inspections required under paragraphs (a)(4)(i) through (a)(4)(iv) of this section must be performed.

(B) There must be no injury to any of the personnel in the lifeboat.

(8) Each davit-launched liferaft launching appliance must be loaded with a weight equal to the liferaft loaded with its full load of persons and equipment. The weight must be lowered to a point just above the water, dock or other surface that will support the weight. The automatic disengaging apparatus control must be set to release, and must open when the weight is lowered to and supported by the surface. There must be no evident damage or deformation of the release mechanism, launching appliance, or its connections to the vessel.

(9) Each lifejacket, immersion suit, and work vest must be examined to determine that it is in serviceable condition. Each lifejacket, immersion suit, and work vest not in serviceable condition must be either repaired, or destroyed and removed from the vessel. The marine inspector may mark the lifejackets, immersion suits, and work vests to indicate that they have been inspected and passed.

(10) The control apparatus for each electrically-controlled launching appliance winch must be opened, inspected, and determined to be in serviceable condition.

(11) Each inflatable liferaft and inflatable lifejacket must be inspected to determine that it has been serviced under § 97.90-80 of this chapter.

(12) Each hydrostatic release unit must be inspected to determine that it has been serviced under § 97.90-90 of this chapter.

(13) Each other item of lifesaving equipment on the vessel must be inspected to determine that it is in serviceable condition. Each item not in serviceable condition must be repaired or replaced. Each item of survival equipment with an expiration date on it must be replaced if the expiration date has passed.

(14) An abandon-ship drill must be held. The marine inspector specifies the nature of the emergency to be simulated.

PART 94—LIFESAVING EQUIPMENT

70. By removing and reserving Part 94.

70a. The following Table of Contents for Part 97 reflects new or revised subparts to read as follows:

PART 97—OPERATIONS**Subpart 97.00—Incorporation by reference**

Sec.
97.00-1 Incorporation by reference.

Subpart 97.13—Emergency Signals

97.13-1 Emergency signals.

Subpart 97.14—Manning of Survival Craft and Supervision

97.14-1 Certificate of proficiency.
97.14-5 Manning and supervision.

Subpart 97.90—Operational Readiness, Maintenance and Inspection of Lifesaving Equipment

97.90-20 Operational readiness.
97.90-30 Maintenance.
97.90-40 Maintenance of falls.
97.90-50 Spare parts and repair equipment.
97.90-60 Weekly inspection.
97.90-70 Monthly inspections.
97.90-73 Quarterly inspections.
97.90-75 Annual inspection and repair.
97.90-80 Servicing of inflatable liferafts, inflatable lifejackets and inflated rescue boats.
97.90-90 Periodic servicing of hydrostatic release units.

71. The authority citation for Part 97 is revised to read as follows:

Authority: 46 U.S.C. 3306, 3703, 6101, 8105; 49 CFR 1.46.

72. By adding Subpart 97.00 to read as follows:

Subpart 97.00 Incorporation by reference.**§ 97.00-1 Incorporation by reference.**

(a) Certain materials are incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than the one listed in paragraph (b) of this section, notice of change must be published in the *Federal Register* and the material made available to the public. All approved material is on file at the Office of the Federal Register, 1100 L Street, NW., Washington, DC, and at the U.S. Coast Guard, Merchant Vessel Inspection Division (G-MVI), 2100 Second Street, SW., Washington, DC 20593-0001, and is available from the sources indicated in paragraph (b) of this section.

(b) The material approved for incorporation by reference in this part, and the sections affected are:

American Society for Testing and Materials
1916 Race St., Philadelphia, PA 19103.
ASTM D93-80, Test for Flash Point by Pennsky-Martens Closed Tester: 97.15-55.

International Maritime Organization (IMO)
Publications Section, 4 Albert Embankment, London SE1 7SR, England.

Resolution [LSR 19/WP.4, Annex 3].
"Guidelines Concerning the Use and Fitting of Retroreflective Materials on Life-saving Appliances", June 1987: 97.37-37; 97.37-43.

73. By revising Subpart 97.13 to read as follows:

Subpart 97.13—Emergency Signals**§ 97.13-1 Emergency signals.**

(a) *General.* The various signals used to call the crew to their stations and to give instructions to the crew must be listed on the station bill required under § 199.80 of this chapter. The signals must be as follows:

(1) The fire and emergency signal must consist of a continuous blast of the whistle for not less than 10 seconds followed by the continuous ringing of the general alarm bells for not less than 10 seconds.

(2) The signal for dismissal from fire alarm stations must consist of ringing of the general alarm bells three times, followed by three short blasts of the whistle.

(3) The signal for boat stations or boat drill must consist of a succession of more than six short blasts, followed by one long blast of the whistle, followed by the same signal on the general alarm bells.

(4) A man-overboard signal must be established.

(5) An abandon-ship signal must be established.

(6) The signal to lower lifeboats or davit launched liferafts must consist of one short blast of the whistle.

(7) The signal to stop lowering lifeboats or davit launched liferafts must consist of two short blasts of the whistle.

(8) The signal for dismissal from boat stations must consist of three short blasts of the whistle.

(9) Each other emergency signal established must not conflict with navigational signals or other general alarm signals.

(b) *River service.* For vessels in river service where a whistle is not used, the ship's bell must be used for the whistle signals described in this section.

74. By revising Subpart 97.14 to read as follows:

Subpart 97.14—Manning of Survival Craft and Supervision**§ 97.14-1 Certificate of proficiency.**

A merchant mariner's document endorsement as a lifeboatman or another inclusive rating under Part 12 of this Title is evidence of training in survival craft and serves as a certificate of proficiency. For the purposes of this subpart, a "certificated person" is a

person holding a merchant mariner's document with such an endorsement.

§ 97.14-5 Manning and supervision.

(a) There must be a sufficient number of trained persons on board for mustering and assisting untrained persons.

(b) There must be a sufficient number of deck officers, able seamen, or certificated persons on board to operate the survival craft and launching arrangements required for abandonment by the total number of persons permitted on board.

(c) One person must be placed in charge of each survival craft to be used.

(1) Except for vessels in river service, the person in command must be a deck officer, able seaman, or certificated person.

(2) A deck officer, able seaman, or certificated person must be designated second-in-command for—

(i) Each lifeboat on a vessel in ocean service; and

(ii) Except on a vessel in river service, each lifeboat permitted to carry more than 40 persons.

(3) Each vessel that carries passengers and is not in river service, must have at least one deck officer, able seaman, or certificated person for every 20 passengers assigned to each lifeboat.

(d) The person in charge of each survival craft shall have a list of the survival craft crew and shall see that the crewmembers are acquainted with their duties. The second-in-command of a lifeboat shall also have a list of the lifeboat crew.

(e) Each motorized survival craft must have a person assigned who is capable of operating the engine and carrying out minor adjustments.

(f) The master shall make sure the persons required under paragraphs (a), (b), and (c) of this section are equitably distributed among the vessel's survival craft.

Subpart 97.15—Tests, Drills, and Inspections

75. By removing paragraph (a)(3) of § 97.15-25.

76. By revising § 97.15-35 to read as follows:

§ 97.15-35 Abandon-ship training and drills.

(a) Abandon-ship training material must be on board each vessel. The training material must consist either of a manual of one or more volumes, or audio-visual training aids, or both.

(1) The training material must contain instructions and information on the lifesaving appliances on the vessel and

on the best methods of survival. A training manual must be written in easily understood terms, illustrated wherever possible.

(2) If a training manual is used, a copy must be in each crew messroom and recreation room or in each crew cabin. If audio-visual training aids are used they must be incorporated in the onboard training sessions under paragraph (d) of this section.

(3) The training material must explain the following in detail:

- (i) Donning of the lifejackets and immersion suits carried on board.
- (ii) Muster at the assigned stations.
- (iii) Boarding, launching, and clearing the survival craft and rescue boats.
- (iv) Method of launching from within the survival craft.
- (v) Release from launching appliances.
- (vi) Method and use of devices for protection in launching areas, where appropriate.
- (vii) Illumination in launching areas.
- (viii) Use of all survival equipment.
- (ix) Use of all detection equipment.
- (x) With illustrations, the use of radio lifesaving appliances.
- (xi) Use of sea anchors.
- (xii) Use of engine and accessories.
- (xiii) Recovery of survival craft and rescue boats including stowage and securing.
- (xiv) Hazards of exposure and the need for warm clothing.
- (xv) Best use of the survival craft for survival.

(xvi) Methods of retrieval, including the use of helicopter rescue gear (slings, baskets, stretchers), breeches-buoy and shore lifesaving apparatus and vessel's line-throwing apparatus.

(xvii) All other functions contained in the muster list and emergency instructions.

(xviii) Instructions for emergency repair of the lifesaving appliances.

(b) An abandon-ship drill must be conducted on each vessel in alternating weeks. If a drill can not be held during the appointed week due to bad weather or other unavoidable reason, the drill must be conducted at the first opportunity following the time when the drill would normally have been held.

(1) Any member of the crew excused from an abandon-ship drill must participate in the next drill, so that each member participates in at least one abandon-ship drill each month. If more than 25% of the crew have not participated in an abandon-ship drill on board that particular vessel in the previous month, a drill must be conducted before the vessel leaves port if reasonable and practicable, but not later than 24 hours after the vessel leaves port. The Commandant (G-MVI)

may accept other arrangements that are at least equivalent for those vessels where this is impractical.

(2) On a vessel on an international voyage, musters of the passengers must take place within 24 hours after their embarkation. Passengers must be instructed in the use of the lifejackets and the action to take in an emergency. The passengers must be encouraged to participate fully in the abandon-ship drill. If only a small number of passengers embark at a port after the muster has been held, the attention of these passengers must be drawn to the emergency instructions required under § 199.80(a) and 199.80(c) of this chapter if another muster is not held.

(3) On each vessel not on an international voyage, a muster of the passengers must be held on departure, or else—

(i) For voyages of more than one day's duration, musters of the passengers must be in accordance with paragraph (b)(2) of this section as for vessels on an international voyage; and (ii) For voyages of less than one day's duration, the attention of the passengers must be drawn to the emergency instructions required under § 199.80(a) and 199.80(c) of this chapter.

(4) Each abandon-ship drill must include:

(i) Summoning of passengers and crew to muster stations with the general alarm and making sure that they are made aware of the order to abandon-ship as specified in the station bill.

(ii) Simulation of an abandon-ship emergency which varies from drill to drill.

(iii) Reporting to stations, preparing for, and demonstrating the duties assigned under the procedure described in the station bill for the particular abandon-ship emergency being simulated.

(iv) Checking to see that passengers and crew are suitably dressed.

(v) Checking to see that lifejackets are correctly donned.

(vi) Lowering of at least one lifeboat after any necessary preparation for launching. The lifeboat must be lowered at least to the extent where the davit head has completed its travel and the fall wire has begun to pay out.

(vii) Starting and operating the lifeboat engine.

(viii) Operation of davits used for launching liferafts.

(5) Different lifeboats must, as far as practicable, be lowered to meet paragraph (b)(4)(vi) of this section at successive drills.

(6) Each abandon-ship drill must, as far as practicable, be conducted as if there were an actual emergency.

(7) Each lifeboat must be launched with its assigned operating crew aboard and maneuvered in the water at least once every 3 months during an abandon-ship drill.

(8) Each rescue boat that is not also a lifeboat must be launched with its assigned crew aboard and maneuvered in the water—

(i) Once each month, if reasonable and practicable; but

(ii) At least once every 3 months.

(9) If lifeboat and rescue boat launching drills are carried out with the vessel making headway, such drills must, because of the dangers involved, be practiced only in waters where it is safe, under the supervision of an officer experienced in such drills.

(10) At least one drill every 3 months must be held at night, unless the master determines it is unsafe.

(11) Emergency lighting for mustering and abandonment must be tested at each abandon-ship drill.

(c) The master of a vessel carrying immersion suits shall make sure that—

(1) Each crew member either—

(i) Wears an immersion suit in at least one abandon-ship drill per month unless it is impracticable due to warm weather; or

(ii) Participates in at least one immersion suit drill per month that includes donning an immersion suit and being instructed in its use;

(2) In each abandon-ship drill, each passenger on board is instructed in the use of immersion suits; and

(3) Each passenger is told at the beginning of the voyage where immersion suits are stowed on board and is encouraged to read the instructions for donning and use of the immersion suits.

(d) Each crew member on board the vessel must be given training in the use of lifesaving appliances and the duties assigned in the station bill.

(1) Except as provided under paragraph (d)(2) of this section, onboard training in the use of the vessel's lifesaving appliances, including survival craft equipment, must be given to each crew member as soon as possible but not later than 2 weeks after the crew member joins the vessel.

(2) If a crew member is on a regularly scheduled rotating assignment to a vessel, onboard training in the use of the vessel's lifesaving appliances, including survival craft equipment, must be given to the crew member not later than 2 weeks after the time the crew member first joins the vessel.

(3) The crew must be instructed in the use of the vessel's lifesaving appliances and in survival at sea on alternating

weeks, normally in the weeks when abandon-ship drills are not held. If individual instruction sessions cover different parts of the vessel's lifesaving system, all the vessel's lifesaving equipment and appliances must be covered within each 2 month period. Each member of the crew must be instructed in at least—

(i) Operation and use of the vessel's inflatable liferafts;

(ii) Problems of hypothermia, first-aid treatment for hypothermia and other appropriate first-aid procedures; and

(iii) Special instructions necessary for use of the vessel's lifesaving appliances in severe weather and severe sea conditions.

(4) Onboard training in the use of davit-launched liferafts must take place at intervals of not more than 4 months on each vessel with davit-launched liferafts. Whenever practicable this must include the inflation and lowering of a liferaft. If this liferaft is a special liferaft intended for training purposes only, and is not part of the vessel's lifesaving equipment, this liferaft must be conspicuously marked.

(e) The date when musters are held, details of abandon-ship drills, drills of other lifesaving appliances and onboard training must be recorded in the vessel's official logbook. Each logbook entry must include the following, as applicable:

(1) The time and date.
(2) Length of drill or training session.
(3) Identification of survival craft used in drills.

(4) Subject of training session.
(5) Statement as to the condition of the equipment used.

(6) If a full muster, drill or training session is not held at the appointed time, the circumstances and the extent of the muster, drill or training session held.

§ 97.15-37 [Removed]

77. By removing § 97.15-37.

78. By revising § 97.15-40 to read as follows:

§ 97.15-40 Fire drills.

(a) A fire drill must be conducted on each vessel in alternating weeks. The fire drill must not be conducted as part of the abandon-ship drill, nor immediately prior to or after the abandon-ship drill. If a fire drill cannot be held during the appointed week due to bad weather or other unavoidable reason, the drill must be conducted at the first opportunity following the time when the drill would normally have been held.

(b) Any member of the crew excused from a fire drill must participate in the

next drill, so that each member participates in at least one fire drill each month. If more than 25% of the crew have not participated in a fire drill on board that particular vessel in the previous month, a drill must be conducted before the vessel leaves port if reasonable and practicable, but not later than 24 hours after the vessel leaves port. The Commandant (G-MVI) may accept other arrangements that are at least equivalent for those vessels where this is impractical.

(c) Each fire drill must include:

(1) Summoning of passengers and crew to their stations with the general alarm.

(2) Simulation of a fire emergency which varies from drill to drill.

(3) Reporting to stations, preparing for, and demonstrating the duties assigned under the procedure described in the station bill for the particular fire emergency being simulated.

(4) Starting of fire pumps and use of a sufficient number of outlets to determine that the system is in proper working order.

(5) Bringing out each breathing apparatus and other item of rescue and safety equipment from the emergency equipment lockers, and demonstrating the use of each item by the person or persons designated to use it.

(6) Operating each watertight door used while the vessel is underway.

(7) Operation of each self-closing fire door.

(8) Closing all fire doors and doors in fire boundaries.

(d) Each fire drill must, as far as practicable, be conducted as if there were an actual emergency.

(e) The date when fire drills are held, and details of fire drills must be recorded in the vessel's official logbook. Each logbook entry must include the following, as applicable:

(1) The time and date.
(2) Length of drill.
(3) Number and lengths of hose used.
(4) Statement as to the condition of the equipment used.

(5) If a full drill is not held at the appointed time, the circumstances and the extent of the drill held.

§ 97.15-45 [Removed]

79. By removing § 97.15-45.

§ 97.15-50 [Removed]

80. By removing § 97.15-50.

§ 97.15-65 [Removed]

81. By removing § 97.15-65.

§ 97.15-70 [Removed]

82. By removing § 97.15-70.

83. By revising paragraphs (a)(1) and (a)(7) of § 97.35-5 to read as follows:

§ 97.35-5 Actions required to be logged.

(a) * * *

(1) Abandon-ship training and drills, and fire drills. As held. See §§ 97.15-35, and 97.15-40.

(7) Survival craft winches. Once in each three months. See § 97.90-73.

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

84. By revising § 97.37-37 to read as follows:

§ 97.37-37 Lifeboats and rescue boats.

(a) The following must be plainly marked or painted on each side of the bow of each lifeboat and rescue boat in letters and numbers at least 75 mm (3 in.) high:

(1) The name of the vessel.

(2) The number of the boat. The boats on each side of the vessel must be numbered from forward to aft. If there are boats on both sides of the vessel, the odd numbers must be on the starboard side.

(3) For vessels in ocean service, the name of the port required to be marked on the stern of the vessel under Subpart 67.13 of this chapter.

(b) The following must be plainly marked or painted on each side of the bow of each lifeboat and rescue boat in letters and numbers at least 35 mm (1.5 in.) high:

(1) The length and beam of the boat.

(2) The number of persons capacity of the boat. This number must—

(i) Be the number of persons the lifeboat is equipped for; and

(ii) Not be greater than the number of persons the boat is approved for, as shown on its nameplate.

(c) The following must be plainly marked or painted on each lifeboat and rescue boat in at least two places visible from above the boat in letters and numbers not less than 75 mm (3 in.) high:

(1) The number of persons capacity of the boat.

(2) The name of the vessel.

(d) The name of the vessel must be plainly marked or painted on each oar and paddle.

(e) On or before July 1, 1991, each lifeboat and rescue boat must be marked with Type II retroreflective material approved under Subpart 164.018 of this chapter. The arrangement of the retroreflective material must meet IMO Resolution (LSR 19/WP.4, Annex 3).

85. By adding a new § 97.37-39 to read as follows:

§ 97.37-39 Rigid liferafts.

(a) The following must be plainly marked or painted near one entrance of each rigid liferaft in letters and numbers at least 75 mm (3 in.) high:

- (1) The name of the vessel.
- (2) The number of the liferaft. Liferafts stowed on the sides of the vessel must be numbered in the same manner as the lifeboats.

(3) For vessels in ocean service, the name of the port required to be marked on the stern of the vessel under Subpart 67.13 of this chapter.

(b) The following must be plainly marked or painted near one entrance of each rigid liferaft in letters and numbers at least 35 mm (1.5 in.) high:

- (1) Either "SOLAS A Pack" or "SOLAS B Pack" depending upon its equipment under § 199.143(b) or § 199.143(c) of this chapter.
- (2) The length of the painter.

(c) The number of persons capacity must be plainly marked or painted over each entrance to each rigid liferaft in letters and numbers at least 100 mm (4 in.) high, in a color contrasting to that of the liferaft. This number must—

- (1) Be the number of persons the liferaft is equipped for; and
- (2) Not be greater than the number of persons the liferaft is approved for, as shown on its nameplate.

(d) The name of the vessel must be plainly marked or painted on each paddle.

86. By revising § 97.37-40 to read as follows:

§ 97.37-40 Inflatable liferafts.

The number of the liferaft and the number of persons it is permitted to accommodate must be marked or painted in a conspicuous place in the immediate vicinity of each inflatable liferaft in letters and numbers at least 35 mm (1.5 in.) high. Liferafts stowed on the sides of the vessel must be numbered in the same manner as the lifeboats. This marking must not be on the inflatable liferaft container.

87. By adding a new § 97.37-42 to read as follows:

§ 97.37-42 Life floats and buoyant apparatus.

(a) The name of the vessel must be plainly marked or painted on each life float and buoyant apparatus, together with their oars and paddles.

(b) The number of persons capacity must be plainly marked or painted on each life float and buoyant apparatus in letters and numbers at least 35 mm (1.5 in.) high. This number must—

- (1) Be the number of persons the device is equipped for; and

(2) Not be greater than the number of persons the device is approved for, as shown on its nameplate.

88. By revising § 97.37-43 to read as follows:

§ 97.37-43 Lifejackets, immersion suits, and ring life buoys.

(a) Each lifejacket, immersion suit, and ring life buoy must be marked in block capital letters with the vessel's name.

(b) Each container for lifejackets and immersion suits must be marked in letters and numbers at least 50 mm (2 in.) high with the number and identification of the items stowed inside and their size.

(c) Each ring life buoy on a vessel in ocean service must be marked in block capital letters with the name of the port required to be marked on the stern of the vessel under Subpart 67.13 of this chapter.

(d) Each stowage position for a ring life buoy must be marked "LIFE BUOY".

(e) Each lifejacket must be marked with Type I retroreflective material approved under Subpart 164.018 of this chapter. The arrangement of the retroreflective material must meet IMO Resolution (LSR 19/WP.4, Annex 3).

(f) On or before July 1, 1991, each ring life buoy must be marked with Type II retroreflective material approved under Subpart 164.018 of this chapter. The arrangement of the retroreflective material must meet IMO Resolution (LSR 19/WP.4, Annex 3).

Note: Each approved immersion suit is provided with retroreflective material by the manufacturer of the suit.

89. By revising § 97.37-55 to read as follows:

§ 97.37-55 EPIRBs and SARTs.

The name of the vessel must be plainly marked or painted on each Emergency Position Indicating Radio Beacon (EPIRB) and on each Search and Rescue Transponder (SART), except for an EPIRB or SART—

- (a) In an inflatable liferaft; or
- (b) Permanently installed in a survival craft.

§ 97.39-1 [Removed]

90. By removing Subpart 97.39 (consisting of § 97.39-1).

§§ 97.85-1, 97.85-5, and 97.85-10 [Removed]

91. By removing Subpart 97.85 (consisting of §§ 97.85-1, 97.85-5, and 97.85-10).

92. By redesignating Subpart 97.90 as Subpart 97.85 and adding a new Subpart 97.90 to read as follows:

Subpart 97.90—Operational Readiness, Maintenance and Inspection of Lifesaving Equipment**§ 97.90-20 Operational readiness.**

(a) Except as provided in § 97.90-30(e), each lifesaving appliance and each item of survival craft, rescue boat, life float, and buoyant apparatus equipment must be in good working order and ready for immediate use before the vessel leaves port and at all times when the vessel is in navigation.

(b) Each deck where lifeboats, liferafts, life floats, and buoyant apparatus are stowed or boarded must be kept clear of obstructions that would interfere with the boarding and launching of the lifesaving appliances.

(c) If lifeboats are used to carry persons to and from the vessel when the vessel is in a harbor or at an anchorage, there must be a sufficient number of lifeboats and liferafts available for use on each side of the vessel to accommodate all persons remaining on board.

§ 97.90-30 Maintenance.

(a) The manufacturer's instructions for onboard maintenance of lifesaving appliances must be onboard and must include the following for each appliance—

- (1) Checklists for use when carrying out the inspections required under § 97.90-70(a);
- (2) Maintenance and repair instructions;
- (3) A schedule of periodic maintenance;
- (4) A diagram of lubrication points with the recommended lubricants;
- (5) A list of replaceable parts;
- (6) A list of sources of spare parts; and
- (7) A log for records of inspections and maintenance.

(b) The master shall make sure that maintenance is carried out in accordance with the instructions required under paragraph (a) of this section.

(c) For lifesaving appliances constructed on or before July 1, 1986, paragraph (a) of this section need only be complied with to the extent that the manufacturer's instructions are available.

(d) The OCMI may accept, instead of the instructions required under paragraph (a) of this section, a shipboard planned maintenance program that includes the items listed in that paragraph.

(e) If lifeboats, rescue boats, and rigid liferafts are maintained and repaired while the vessel is underway, there must be a sufficient number of lifeboats and

liferrafts available for use on each side of the vessel to accommodate all persons on board.

(f) Except in an emergency, extensive repairs or alterations must not be made to any lifesaving appliance without advance notification of the OCMI. Insofar as possible, each repair or alteration must be made in accordance with the requirements for the lifesaving appliance in Subchapter Q of this chapter. The OCMI may require each lifesaving appliance that has been altered or extensively repaired to be subjected to each test for the appliance in Subchapter Q of this chapter that is affected by the repair or alteration.

(g) The master shall report each emergency repair or alteration to a lifesaving appliance as soon as practicable to the OCMI in the next port in the United States where the vessel calls. If the vessel does not regularly call at ports in the United States, the report must be made to the OCMI responsible for one of the foreign ports where the vessel calls.

(h) A lifeboat or rigid liferaft must not be repaired or reconditioned for use on a vessel other than the one it was originally built for, unless specifically permitted by the OCMI. If required by the OCMI, the repair or reconditioning of the lifeboat or rigid liferaft must be made under the OCMI's supervision.

§ 97.90-40 Maintenance of falls.

(a) Each fall used in a launching appliance must be turned end for end at intervals of not more than 30 months.

(b) Each fall must be renewed when necessary due to deterioration or at intervals of not more than 5 years, whichever is the earlier.

(c) Each fall must have a corrosion-resistant tag with the following permanently marked on it:

(1) The date the new fall was installed.

(2) If the fall has been turned end for end, the date it was turned.

§ 97.90-50 Spare parts and repair equipment.

Spare parts and repair equipment must be provided for each lifesaving appliance and component subject to excessive wear or consumption and that needs to be replaced regularly. These parts and equipment must be kept on board the vessel, or, if the vessel operates daily out of the same shore base, these parts and equipment may be kept at the shore base.

§ 97.90-60 Weekly inspection.

The following tests and inspections must be carried out weekly:

(a) Each survival craft, rescue boat and launching appliance must be visually inspected to make sure it is ready for use.

(b) Each lifeboat engine and rescue boat engine must be run ahead and astern for not less than 3 min., unless the ambient temperature is below the minimum temperature required for starting the engine.

(c) The general alarm system must be tested.

(d) Each battery for lifeboat and rescue boat engine starting, searchlights, fixed lifeboat radio installations, and portable radio apparatus must be brought up to full charge at least once each week if—

(1) The battery is of a type that requires recharging; and

(2) The battery is not connected to a device that keeps it continuously charged.

(e) The transmitter of each fixed lifeboat radio installation and portable radio apparatus must be tested at least once each week using a dummy antenna load.

§ 97.90-70 Monthly inspections.

(a) Each lifesaving appliance, including lifeboat equipment, must be inspected monthly using the checklist required under § 97.90-30(a)(1) to make sure it is complete and in good order. A report of the inspection, including a statement as to the condition of the equipment, must be recorded in the vessel's official logbook.

(b) Each EPIRB and each SART other than an EPIRB or SART in an inflatable liferaft, must be tested monthly. The EPIRB must be tested using the integrated test circuit and output indicator to determine that it is operative.

§ 97.90-73 Quarterly inspections.

(a) Each lifeboat winch control apparatus, including motor controllers, emergency switches, master switches, and limit switches must be examined once each three months.

(b) The examination must include the removal of drain plugs and the opening of drain valves to make sure that enclosures are free of water.

(c) The date of the examination required under this section and the condition of the equipment must be noted in the official logbook.

§ 97.90-75 Annual inspection and repair.

(a) Each lifeboat, rescue boat, rigid liferaft, buoyant apparatus, and life float must be stripped, cleaned, and thoroughly inspected and repaired as needed at least once each year,

including emptying and cleaning of each fuel tank, and refilling it with fresh fuel.

(b) Each davit, winch, fall and other launching appliance must be thoroughly inspected and repaired as needed once each year.

(c) Each item of survival equipment with an expiration date must be replaced during the annual inspection and repair if the expiration date has passed.

(d) Each battery used in an item of survival equipment and clearly marked with a date identified as an expiration date must be replaced during the annual inspection and repair if the expiration date has passed.

(e) Except for a storage battery used in a lifeboat or rescue boat, each battery without an expiration date used in an item of survival equipment must be replaced during the annual inspection and repair.

(f) The requirements in this section do not relieve the master or person in charge of the requirement under § 97.90-20(a) to keep the equipment ready for immediate use.

§ 97.90-80 Servicing of inflatable liferafts, inflatable lifejackets and inflated rescue boats.

(a) Each inflatable liferaft, inflatable lifejacket, and hybrid inflatable lifejacket or work vest must be serviced—

(1) Within 12 months of its initial packing; and

(2) Within 12 months of each subsequent servicing, except when servicing is delayed until the next scheduled inspection of the vessel, provided that the delay does not exceed 5 months.

(b) Each inflatable liferaft must be serviced—

(1) Whenever the container of the raft is damaged, or the straps or seal broken; and

(2) In accordance with the servicing procedure under Subpart 160.051 of this chapter.

(c) Each inflatable lifejacket must be serviced in accordance with the servicing procedure under Subpart 160.076 of this chapter.

(d) Each hybrid inflatable lifejacket or work vest must be serviced in accordance with the servicing procedure under Subpart 160.077 of this chapter.

(e) Repair and maintenance of inflated rescue boats must be in accordance with the manufacturer's instructions. All repairs must be made at a servicing facility approved by the Commandant (G-MVI), except for emergency repairs carried out on board the vessel.

§ 97.90-90 Periodic servicing of hydrostatic release units.

(a) Each hydrostatic release unit must be serviced—

(1) Within 12 months of its manufacture and within 12 months of each subsequent servicing, except when servicing is delayed until the next scheduled inspection of the vessel, provided that the delay does not exceed 5 months; and

(2) In accordance with the repair and testing procedures under Subpart 160.062 of this chapter.

(b) The springs of each spring-tensioned gripe used with a hydrostatic release unit must be renewed when the unit is serviced and tested.

SUBCHAPTER I-A—MOBILE OFFSHORE DRILLING UNITS

PART 107—INSPECTION AND CERTIFICATION

93. The authority citation for Part 107 is revised to read as follows:

Authority: 43 U.S.C. 1333(d); 46 U.S.C. 3306; 49 CFR 1.46.

Subpart B—Inspection and Certification

94. By removing and reserving paragraphs (h) and (i), by revising paragraphs (a)(8), (b), (e), (f), (g), (y), and (z), and by adding paragraph (a)(9) to § 107.231 to read as follows:

§ 107.231 Inspection for certification.

* * * * *

(a) * * *

(8) Subchapter S of this chapter, Subdivision and Stability; and
(9) Subchapter W of this chapter, Lifesaving Appliances and Arrangements.

Lifesaving Equipment

(b) Each item of lifesaving equipment on the vessel is in serviceable condition.

(1) Each item not in serviceable condition must be repaired or replaced.

(2) A lifejacket that is cleaned or repaired must meet Subpart 160.006 of this chapter.

(3) The marine inspector may mark the lifejackets, immersion suits, and work vests to indicate that they have been inspected and passed.

(4) Each item of survival equipment with an expiration date on it must be replaced if the expiration date has passed.

* * * * *

(e) Each inflatable liferaft and inflatable lifejacket has been serviced under § 109.317 of this chapter.

(f) Each hydrostatic release unit has been serviced under § 109.319 of this chapter.

(g) A successful drill to abandon the unit is held. The marine inspector specifies the nature of the emergency to be simulated.

(h) [Reserved]

(i) [Reserved]

* * * * *

(y) Each new davit or winch meets the tests and inspections in § 31.01-5(c)(1) of this chapter, each new free-fall launching system meets the tests and inspections in § 31.01-5(c)(2) of this chapter, each new lifeboat and rescue boat meets the test in § 31.01-5(c)(3) of this chapter, each new lifeboat, liferaft, rescue boat, davit, winch, or other launching appliance meets the inspection under § 31.01-5(c)(6) of this chapter, and each new ring life buoy quick release device meets the test in § 31.01-5(c)(7) of this chapter.

(z) For the original certificate of inspection, a simulation demonstrates that all survival craft required for abandonment by the total number of persons on board, can be launched with their full complement of persons and equipment within 10 min. from the time the signal to abandon the unit is given. This simulation must include loading and launching of sufficient survival craft to demonstrate that the requirement can be met. This test is not required if the Coast Guard has witnessed a successful test on a sister unit with the same lifesaving appliance arrangements.

* * * * *

95. By revising § 107.239 to read as follows:

§ 107.239 Testing of lifeboats, rescue boats, lifeboat launching systems, and davit-launched liferaft systems.

(a) Each lifeboat and rescue boat gravity davit, and each davit-launched liferaft launching device must be used to lower the boat or liferaft from its stowed position to a point near the water using the on-deck launching appliance controls. This test must be conducted twice; once with the boat or liferaft loaded with all equipment and additional weight of not more than one person, and a second time with the weight of a full load of persons and equipment. A davit-launched liferaft is not required for this test if an appropriate test weight is used. During the lowering, the brake must be applied and released at least five times.

(1) The launching appliance must bring the boat, liferaft, or test weight to a stop by application of the brake by the winch counterweight alone.

(2) The brake action must be smooth and positive.

(3) The brake must be always applied unless the operator, or a mechanism

activated by the operator, holds the brake control in the "off" position.

(4) Lowering must begin each time the brake is released. No additional force is permitted.

(b) Each lifeboat and rescue boat must be lowered to a point just above the water. If the test is conducted in sheltered waters, the boat must be evenly loaded until the total weight of the boat equals the "B" weight on the boat data plate. The release mechanism control must be operated and must open all hooks simultaneously and release the boat into the water properly. There must be no evident damage or deformation of the boat, the launching appliance, or its connections to the vessel.

(c) The air supply system of each fire protected lifeboat must be checked by—

(1) Determining that the air regulator is operating properly either by discharging one or more of the air supply cylinders through the regulator, or by checking the flow rate on a test apparatus; and

(2) Making sure each air supply cylinder is fully charged and meets § 147.04-1(a) of this chapter.

(d) The water spray system of each fire protected lifeboat must be checked by operating the pump and determining that all sprinkler heads are operating properly and provide a uniform flow of water over the surface of the lifeboat.

(e) Each davit-launched liferaft launching appliance must be loaded with a weight equal to the liferaft loaded with its full load of persons and equipment. The weight must be lowered to a point just above the water, dock or other surface that will support the weight. The automatic disengaging apparatus control must be set to release, and must open when the weight is lowered to and supported by the surface. There must be no evident damage or deformation of the automatic disengaging apparatus, launching appliance, or its connections to the vessel.

Subpart C—Plan Approval

96. By revising paragraphs (bb) and (cc) of § 107.305 to read as follows:

§ 107.305 Plans and information.

* * * * *

Lifesaving Equipment

(bb) The location and arrangement of each lifesaving system including each embarkation deck, showing each overboard discharge and clearances from projections and obstructions in the way of launching lifeboats, rescue boats, and liferafts throughout the range of list

and trim angles required under Subchapter W of this chapter.

(cc) The weight of each lifeboat, rescue boat, and davit-launched liferaft when fully equipped and loaded.

PART 108—DESIGN AND EQUIPMENT

97. The authority citation for Part 108 continues to read as follows:

Authority: 43 U.S.C. 1333(d); 46 U.S.C. 3306; 49 CFR 1.46.

Subpart A—General

98. By revising § 108.101 to read as follows:

§ 108.101 Incorporation by reference.

(a) Certain materials are incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than the one listed in paragraph (b) of this section, notice of change must be published in the *Federal Register* and the material made available to the public. All approved material is on file at the Office of the Federal Register, 1100 L Street, NW., Washington, DC, and at the U.S. Coast Guard, Merchant Vessel Inspection Division (G-MVI), 2100 Second Street, SW., Washington, DC 20593-0001, and is available from the sources indicated in paragraph (b) of this section.

(b) The material approved for incorporation by reference in this part, and the sections affected are:

American Bureau of Shipping

45 Eisenhower Dr., Paramus, NJ 07652
Rules for Building and Classing Offshore Mobile Drilling Units, 1980—108.113; 108.705

American National Standards Institute

1430 Broadway, New York, NY 10018
ANSI Z89.1, Industrial Head Protection, 1969—108.497
ANSI A14.3, Fixed Ladders, 1974—108.160

American Petroleum Institute

300 Corrigan Tower Bldg., Dallas, TX 75201
API Spec 2C with supplement 2, Specification for Offshore Cranes, 1972—108.601

International Maritime Organization (IMO)

Publications Section, 4 Albert Embankment, London SE1 7SR, England
Resolution [LSR 19/WP.4, Annex 3], "Guidelines Concerning the Use and Fitting of Retro-reflective Materials on Life-saving Appliances", June 1987—108.645; 108.649

National Fire Protection Association

Batterymarch Park, Quincy, MA 02269
NFPA 407, Standard for Aircraft Fuel Servicing, 1980—108.239
NFPA 496, Standard for Purged and Pressurized Enclosures for Electrical

Equipment in Hazardous Locations, 1974—108.187

Naval Forms and Publications Center

Customer Service, Code 1052, 5801 Tabor Ave., Philadelphia, PA 19120
Federal Specification ZZ-H-451 F, Hose, Fire, Woven-jacketed Rubber or Cambric-lined with Couplings, 1976—108.425

Underwriters Laboratories

333 Pfingston Rd., Northbrook, IL 60062
UL 19-78, Woven-jacketed Rubber Lined Fire Hose, 1978—108.425

Subpart E—Lifesaving Equipment

99. By revising § 108.501 to read as follows:

§ 108.501 Lifesaving appliances and arrangements.

Lifesaving appliances and arrangements on each unit must meet Subchapter W of this chapter.

§ 108.503 [Removed]

100. By removing § 108.503.

§ 108.505 [Removed]

101. By removing § 108.505.

§ 108.506 [Removed]

102. By removing § 108.506.

§ 108.507 [Removed]

103. By removing § 108.507.

§ 108.508 [Removed]

104. By removing § 108.508.

§ 108.509 [Removed]

105. By removing § 108.509.

§ 108.510 [Removed]

106. By removing § 108.510.

§ 108.511 [Removed]

107. By removing § 108.511.

§ 108.513 [Removed]

108. By removing § 108.513.

§ 108.514 [Removed]

109. By removing § 108.514.

§ 108.515 [Removed]

110. By removing § 108.515.

§ 108.517 [Removed]

111. By removing § 108.517.

§ 108.519 [Removed]

112. By removing § 108.519.

§ 108.521 [Removed]

113. By removing § 108.521.

§ 108.523 [Removed]

114. By removing § 108.523.

§ 108.525 [Removed]

115. By removing § 108.525.

§ 108.527 [Removed]

116. By removing § 108.527.

117. By revising § 108.645 to read as follows:

§ 108.645 Lifeboats and rescue boats.

(a) The following must be plainly marked or painted on each side of the bow of each lifeboat and rescue boat in letters and numbers at least 75 mm (3 in.) high:

(1) The name of the unit.

(2) The number of the boat. The boats on each side of the unit must be numbered from forward to aft. If there are boats on both port and starboard sides of the unit, the odd numbers must be on the starboard side.

(3) The name of the port required to be marked on the unit under Subpart 67.13 of this chapter.

(b) The following must be plainly marked or painted on each side of the bow of each lifeboat and rescue boat in letters and numbers at least 35 mm (1.5 in.) high:

(1) The length and beam of the boat.

(2) The number of persons capacity of the boat. This number must—

(i) Be the number of persons the lifeboat is equipped for; and

(ii) Not be greater than the number of persons the boat is approved for, as shown on its nameplate.

(c) The following must be plainly marked or painted on each lifeboat and rescue boat in at least two places visible from above the boat in letters and numbers not less than 75 mm (3 in.) high:

(1) The number of persons capacity of the boat.

(2) The name of the unit.

(d) The name of the unit must be plainly marked or painted on each oar and paddle.

(e) On or before July 1, 1991, each lifeboat and rescue boat must be marked with Type II retroreflective material approved under Subpart 164.018 of this chapter. The arrangement of the retroreflective material must meet IMO Resolution [LSR 19/WP.4, Annex 3].

118. By adding a new § 108.646 to read as follows:

§ 108.646 Rigid liferafts.

(a) The following must be plainly marked or painted near one entrance of each rigid liferaft in letters and numbers at least 75 mm (3 in.) high:

(1) The name of the unit.

(2) The number of the liferaft. Liferafts stowed on the sides of the unit must be numbered in the same manner as the lifeboats.

(3) The name of the port required to be marked on the unit under Subpart 67.13 of this chapter.

(b) The following must be plainly marked or painted near one entrance of each rigid liferaft in letters and numbers at least 35 mm (1.5 in.) high:

(1) Either "SOLAS A Pack" or "SOLAS B Pack" depending upon its equipment under § 199.143(b) or § 199.143(c) of this chapter.

(2) The length of the painter.

(c) The number of persons capacity must be plainly marked or painted over each entrance to each rigid liferaft in letters and numbers at least 100 mm (4 in.) high, in a color contrasting to that of the liferaft. This number must—

(1) Be the number of persons the liferaft is equipped for; and

(2) Not be greater than the number of persons the liferaft is approved for, as shown on its nameplate.

(d) The name of the unit must be plainly marked or painted on each paddle.

119. By revising § 108.647 to read as follows:

§ 108.647 Inflatable liferafts.

The number of the liferaft and the number of persons it is permitted to accommodate must be marked or painted in a conspicuous place in the immediate vicinity of each inflatable liferaft in letters and numbers at least 35 mm (1.5 in.) high. Liferafts stowed on the sides of the unit must be numbered in the same manner as the lifeboats. This marking must not be on the inflatable liferaft container.

120. By revising § 108.649 to read as follows:

§ 108.649 Lifejackets, immersion suits, and ring life buoys.

(a) Each lifejacket, immersion suit, and ring life buoy must be marked in block capital letters with the unit's name.

(b) Each container for lifejackets and immersion suits must be marked in letters and numbers at least 50 mm (2 in.) high with the number and identification of the items stowed inside and their size.

(c) Each ring life buoy must be marked in block capital letters with the name of the port required to be marked on the unit under Subpart 67.13 of this chapter.

(d) Each stowage position for a ring life buoy must be marked "LIFE BUOY".

(e) Each lifejacket must be marked with Type I retroreflective material approved under Subpart 164.018 of this chapter. The arrangement of the retroreflective material must meet IMO Resolution [LSR 19/WP.4, Annex 3].

(f) On or before July 1, 1991, each ring life buoy must be marked with Type II retroreflective material approved under Subpart 164.018 of this chapter. The arrangement of the retroreflective material must meet IMO Resolution [LSR 19/WP.4, Annex 3].

Note: Each approved immersion suit is provided with retroreflective material by the manufacturer of the suit.

121. By adding a new § 108.650 to read as follows:

§ 108.650 EPIRBs and SARTs.

The name of the vessel must be plainly marked or painted on each Emergency Position Indicating Radio Beacon (EPIRB) and on each Search and Rescue Transponder (SART), except for an EPIRB or SART—

(a) In an inflatable liferaft; or

(b) Permanently installed in a survival craft.

§ 108.655 [Removed]

122. By removing § 108.655.

PART 109—OPERATIONS

123. The authority citation for Part 109 is revised to read as follows:

Authority: 43 U.S.C. 1333(d); 46 U.S.C. 3306, 6101; 49 CFR 1.46. Section 431 also issued under 46 U.S.C. 11301.

Subpart B—Tests, Drills, and Inspections

124. By adding paragraph (c) to § 109.207 to read as follows:

§ 109.207 Line-throwing equipment.

* * * * *

(c) The master or person in charge shall make sure the line-throwing equipment is not operated in an explosive atmosphere.

§ 109.208 [Removed]

125. By removing § 109.208.

126. By revising § 109.213 to read as follows:

§ 109.213 Fire fighting training and fire drills.

(a) A fire drill must be conducted on each unit in alternating weeks. The fire drill must not be conducted as part of the abandonment drill, nor immediately prior to or after the abandonment drill. If a fire drill cannot be held during the appointed week due to bad weather or other unavoidable reason, the drill must be conducted at the first opportunity following the time when the drill would normally have been held.

(b) Any member of the crew or any of the industrial personnel excused from a fire drill must participate in the next drill, so that each person participates in

at least one fire drill each month. Each drill must take place within 24 hours of a change in crew or industrial personnel if more than 25% of the persons on board have not participated in a fire drill on board the unit in the previous month.

(c) Each fire drill must include:

(1) Summoning of crew and industrial personnel to their stations with the general alarm.

(2) Simulation of a fire emergency which varies from drill to drill.

(3) Reporting to stations, preparing for, and demonstrating the duties assigned under the procedure described in the station bill for the particular fire emergency being simulated.

(4) Starting of fire pumps and use of a sufficient number of outlets to determine that the system is in proper working order.

(5) Bringing out each breathing apparatus and other item of rescue and safety equipment from the emergency equipment lockers, and demonstrating the use of each item by the person or persons designated to use it.

(6) Operation of fire doors, watertight doors, and other closing arrangements.

(7) Training in the use of firefighting equipment such as fire pumps, fire hoses and hydrants, portable fire extinguishers, foam generators, and fireman's outfits.

(8) Operation of remote controls for stopping ventilation and fuel supplies to machinery spaces.

(d) Each fire drill must, as far as practicable, be conducted as if there were an actual emergency.

(e) Each of the industrial personnel without designated responsibility for the survival of others on board, must be instructed in at least—

(1) The location and actuation of fire alarm controls;

(2) The location and proper method of use of firefighting equipment; and

(3) Fire precautions.

(f) Each member of the crew and each of the industrial personnel with designated responsibility for the survival of others on board must be instructed in at least the items covered in paragraph (e) of this section and—

(1) Methods of detection, isolation, control, and extinguishing of fire; and

(2) Checking and maintaining fire fighting equipment.

127. By revising § 109.215 to read as follows:

§ 109.215 Abandonment training and drills.

(a) Unit abandonment training material must be on board each unit. The training material must consist either of a manual of one or more volumes, or audio-visual training aids, or both.

(1) The training material must contain instructions and information on the lifesaving appliances on the unit and on the best methods of survival. A training manual must be written in easily understood terms, illustrated wherever possible.

(2) If a training manual is used, a copy must be made available to each person on board the unit. If audio-visual training aids are used they must be incorporated in the onboard training sessions under paragraph (d) of this section.

(3) The training material must explain the following in detail:

- (i) Donning of the lifejackets and immersion suits carried on board.
- (ii) Muster at the assigned stations.
- (iii) Boarding, launching, and clearing the survival craft and rescue boat.
- (iv) Method of launching from within the survival craft.
- (v) Release from launching appliances.
- (vi) Method and use of devices for protection in launching areas, where appropriate.
- (vii) Illumination in launching areas.
- (viii) Use of all survival equipment.
- (ix) Use of all detection equipment.
- (x) With illustrations, the use of radio lifesaving appliances.
- (xi) Use of sea anchors.
- (xii) Use of engine and accessories.
- (xiii) Recovery of survival craft and rescue boat including stowage and securing.
- (xiv) Hazards of exposure and the need for warm clothing.
- (xv) Best use of the survival craft for survival.
- (xvi) Methods of retrieval, including the use of helicopter rescue gear (slings, baskets, stretchers), breeches-buoy and shore lifesaving apparatus and unit's line-throwing apparatus.
- (xvii) All other functions contained in the muster list and emergency instructions.
- (xviii) Instructions for emergency repair of the lifesaving appliances.

(b) An abandonment drill must be conducted on each unit in alternating weeks. If a drill cannot be held during the appointed week due to bad weather or other unavoidable reason, the drill must be conducted at the first opportunity following the time when the drill would normally have been held.

(1) Any member of the crew or any of the industrial personnel excused from an abandonment drill must participate in the next drill, so that each person participates in at least one abandonment drill each month. A drill must take place within 24 hours of a change in crew or industrial personnel if more than 25% of the persons on board have not participated in an

abandonment drill on board the unit in the previous month.

(2) Each abandonment drill must include:

(i) Summoning of crew and industrial personnel to muster stations with the general alarm and making sure that they are made aware of how the order to abandon the unit is given, as specified in the station bill.

(ii) Simulation of an abandonment emergency which varies from drill to drill.

(iii) Reporting to stations, preparing for, and demonstrating the duties assigned under the procedure described in the station bill for the particular abandonment emergency being simulated.

(iv) Checking to see that crew members and industrial personnel are suitably dressed.

(v) Checking to see that lifejackets are correctly donned.

(vi) Lowering of at least one lifeboat after any necessary preparation for launching. The lifeboat must be lowered at least to the extent where the davit head has completed its travel and the fall wire has begun to pay out.

(vii) Starting and operating the lifeboat engine.

(viii) Operation of davits used for launching liferafts.

(4) Different lifeboats must, as far as practicable, be lowered to meet paragraph (b)(4)(v) of this section at successive drills.

(5) Each abandonment drill must, as far as practicable, be conducted as if there were an actual emergency.

(6) Each lifeboat must be launched with its assigned operating crew aboard and maneuvered in the water at least once every 3 months during an abandonment drill.

(7) Each rescue boat that is not also a lifeboat must be launched with its assigned crew aboard and maneuvered in the water—

(i) Once each month, if reasonable and practicable; but

(ii) At least once every 3 months.

(8) At least one drill every 3 months must be held at night, unless the master or person in charge determines it is unsafe.

(9) Emergency lighting for mustering and abandonment must be tested at each abandonment drill.

(c) The master or person in charge of a unit carrying immersion suits shall make sure that—

(1) Each member of the crew and industrial personnel either—

(i) Wears an immersion suit in at least one abandonment drill per month unless it is impracticable due to warm weather; or

(ii) Participates in at least one immersion suit drill per month that includes donning an immersion suit and being instructed in its use.

(d) Each member of the crew and industrial personnel on board the unit must be given training in the use of lifesaving appliances and the duties assigned in the station bill.

(1) Except as provided under paragraph (d)(2) of this section, onboard training in the use of the unit's lifesaving appliances, including survival craft equipment, must be given to each member of the crew and industrial personnel as soon as possible, but not later than 2 weeks after they join the unit.

(2) If the crew or industrial personnel are on a regularly scheduled rotating assignment to a unit, onboard training in the use of the unit's lifesaving appliances, including survival craft equipment, must be given to each member of the crew and industrial personnel not later than 2 weeks after the time the person first joins the unit.

(3) The crew and the industrial personnel must be instructed in the use of the unit's lifesaving appliances and in survival at sea on alternating weeks, normally in the weeks when abandonment drills are not held. If individual instruction sessions cover different parts of the unit's lifesaving system, all the unit's lifesaving equipment and appliances must be covered within each 2 month period.

(i) Each of the industrial personnel without designated responsibility for the survival of others on board, must be instructed in at least—

(A) The emergencies which might occur on that particular type of unit;

(B) The consequences of panic;

(C) The types of all lifesaving appliances carried on the unit and proper methods of using them, including—

(1) The correct method of donning and wearing a lifejacket, and if provided, an immersion suit;

(2) Jumping into the water from a height while wearing a lifejacket and, if provided, an immersion suit;

(3) How to board survival craft from the unit and from the water;

(4) Operation and use of the unit's inflatable liferafts;

(5) Special instructions necessary for use of the unit's lifesaving appliances in severe weather and severe sea conditions;

(6) Swimming while wearing a lifejacket; and

(7) Keeping afloat without a lifejacket;

(D) Where appropriate, how to survive in the water—

(1) In the presence of fire or oil on the water;

(2) In cold conditions; and

(3) If sharks may be present;

(E) Problems of hypothermia, first-aid treatment for hypothermia and other appropriate first-aid procedures; and

(F) The need to adhere to the principles of survival; and

(G) The basic methods of boarding helicopters.

(ii) Each member of the crew and each of the industrial personnel with designated responsibility for the survival of others on board, must be instructed in at least the items covered in paragraph (d)(3)(i) of this section, and—

(A) Marshalling of personnel;

(B) Abandonment of the unit, including—

(1) Launching survival craft;

(2) Getting survival craft quickly and safely clear of the unit; and

(3) Righting a capsized survival craft;

(C) Handling all survival craft and their equipment, including—

(1) Checking and maintaining their readiness for immediate use;

(2) Using equipment to the best advantage;

(3) Using the sea anchor;

(4) Remaining, as far as practicable, in the general vicinity of the unit, well clear of but not downwind of any hydrocarbons or fire;

(5) Recovering and, as far as practicable, caring for other survivors;

(6) Keeping a look-out;

(7) Operating available means of detection by others, including radio distress alerting and radio emergency procedures; and

(8) Making proper use of food and drinking water and using protective measures in survival craft such as those for preventing exposure to cold, sun, wind, rain, and sea, and for preventing seasickness;

(D) Cautioning on the preservation of body fluids and the dangers of drinking seawater;

(E) Transferring personnel from survival craft to helicopters or to work boats;

(F) Maintaining morale; and

(G) Methods of helicopter rescue.

(4) Onboard training in the use of davit-launched liferafts must take place at intervals of not more than 4 months on each unit with davit-launched liferafts. Whenever practicable this must include the inflation and lowering of a liferaft. If this liferaft is a special liferaft intended for training purposes only, and not part of the unit's lifesaving equipment, it must be conspicuously marked.

§ 109.217 [Removed]

128. By removing § 109.217.

§ 109.219 [Removed]

129. By removing § 109.219.

§ 109.221 [Removed]

130. By removing § 109.221.

§ 109.225 [Removed]

131. By removing § 109.225.

Subpart C—Operation and Stowage of Safety Equipment

132. By revising § 109.301 to read as follows:

§ 109.301 Operational readiness.

(a) Except as provided in § 109.303(e), each item of firefighting equipment, each lifesaving appliance and each item of survival craft and rescue boat equipment must be in good working order and ready for immediate use at all times when the unit is in operation.

(b) Each deck where lifeboats and liferafts are stowed or boarded must be kept clear of obstructions that would interfere with the boarding and launching of the lifesaving appliances.

133. By adding a new § 109.303 to read as follows:

§ 109.303 Maintenance of lifesaving appliances.

(a) The manufacturer's instructions for onboard maintenance of lifesaving appliances must be onboard and must include the following for each appliance—

(1) Checklists for use when carrying out the inspections required under § 109.311(a);

(2) Maintenance and repair instructions;

(3) A schedule of periodic maintenance;

(4) A diagram of lubrication points with the recommended lubricants;

(5) A list of replaceable parts;

(6) A list of sources of spare parts; and

(7) A log for records of inspections and maintenance.

(b) The master or person in charge shall make sure that maintenance is carried out in accordance with the instructions required under paragraph (a) of this section.

(c) For lifesaving appliances constructed on or before July 1, 1986, paragraph (a) of this section need only be complied with to the extent that the manufacturer's instructions are available.

(d) The OCMI may accept, instead of the instructions required under paragraph (a) of this section, an onboard planned maintenance program that includes the items listed in that paragraph.

(e) If lifeboats, rescue boats, and rigid liferafts are maintained and repaired while the unit is in operation, there must be a sufficient number of lifeboats and liferafts available for use in at least two separate locations to accommodate all persons on board.

(f) Except in an emergency, extensive repairs or alterations must not be made to any lifesaving appliance without advance notification of the OCMI. Insofar as possible, each repair or alteration must be made in accordance with the requirements for the lifesaving appliance in Subchapter Q of this chapter. The OCMI may require each lifesaving appliance that has been altered or extensively repaired to be subjected to each test for the appliance in Subchapter Q of this chapter that is affected by the repair or alteration.

(g) The master or person in charge shall report each emergency repair or alteration to a lifesaving appliance as soon as practicable to the OCMI responsible for the area where the unit is operating.

(h) A lifeboat or rigid liferaft must not be repaired or reconditioned for use on a unit other than the one it was originally built for, unless specifically permitted by the OCMI. If required by the OCMI, the repair or reconditioning of the lifeboat or rigid liferaft must be made under the OCMI's supervision.

134. By revising § 109.305 to read as follows:

§ 109.305 Maintenance of falls.

(a) Except as provided under paragraph (d) of this section, each fall used in a launching appliance must be turned end for end at intervals of not more than 30 months.

(b) Each fall must be renewed when necessary due to deterioration or at intervals of not more than 5 years, whichever is the earlier.

(c) Each fall must have a corrosion-resistant tag with the following permanently marked on it:

(1) The date the new fall was installed.

(2) If the fall has been turned end for end, the date it was turned.

(d) A fall which can not be turned end for end must be carefully inspected between 24 and 30 months after its installation. If the inspection shows that the fall is faultless, the fall may be continued in service up to 48 months after its installation, when it must be replaced.

135. By revising § 109.307 to read as follows:

§ 109.307 Spare parts and repair equipment for lifesaving appliances.

Spare parts and repair equipment must be on board the unit for each lifesaving appliance and component subject to excessive wear or consumption and that needs to be replaced regularly.

136. By adding a new § 109.309 to read as follows:

§ 109.309 Weekly inspection of lifesaving appliances.

The following tests and inspections must be carried out weekly:

(a) Each survival craft, rescue boat and launching appliance must be visually inspected to ensure its readiness for use.

(b) Each lifeboat engine and rescue boat engine must be run ahead and astern for not less than 3 min., unless the ambient temperature is below the minimum temperature required for starting the engine.

(c) The general alarm system must be tested.

(d) Each battery for lifeboat and rescue boat engine starting, searchlights, fixed lifeboat radio installations, and portable radio apparatus must be brought up to full charge at least once each week if—

(1) The battery is of a type that requires recharging; and

(2) The battery is not connected to a device that keeps it continuously charged.

(e) The transmitter of each portable radio apparatus must be tested at least once each week using a dummy antenna load.

137. By adding a new § 109.311 to read as follows:

§ 109.311 Monthly inspections of lifesaving appliances.

(a) Each lifesaving appliance, including lifeboat equipment, must be inspected monthly using the checklist required under § 109.303(a)(1) to make sure it is complete and in good order. A report of the inspection, including a statement as to the condition of the equipment, must be recorded in the unit's official logbook.

(b) Each EPIRB and each SART other than an EPIRB or SART in an inflatable liferaft, must be tested monthly. The EPIRB must be tested using the integrated test circuit and output indicator to determine that it is operative.

138. By revising § 109.313 to read as follows:

§ 109.313 Quarterly inspections of lifesaving appliances.

(a) Each lifeboat winch control apparatus, including motor controllers,

emergency switches, master switches, and limit switches must be examined once each three months.

(b) The examination must include the removal of drain plugs and the opening of drain valves to make sure that enclosures are free of water.

(c) The date of the examination required under this section and the condition of the equipment must be noted in the official logbook.

§ 109.314 [Removed]

139. By removing § 109.314.

140. By adding a new § 109.315 to read as follows:

§ 109.315 Annual inspection and repair of lifesaving appliances.

(a) Each lifeboat, rescue boat and rigid liferaft must be stripped, cleaned, and thoroughly inspected and repaired as needed at least once each year, including emptying and cleaning of each fuel tank, and refilling it with fresh fuel.

(b) Each davit, winch, fall and other launching appliance must be thoroughly inspected and repaired as needed once each year.

(c) Each item of survival equipment with an expiration date must be replaced during the annual inspection and repair if the expiration date has passed.

(d) Each battery used in an item of survival equipment and clearly marked with a date identified as an expiration date must be replaced during the annual inspection and repair if the expiration date has passed.

(e) Except for a storage battery used in a lifeboat or rescue boat, each battery without an expiration date used in an item of survival equipment must be replaced during the annual inspection and repair.

(f) The requirements in this section do not relieve the master or person in charge of the requirement under § 109.301(a) to keep the equipment ready for immediate use.

141. By revising § 109.317 to read as follows:

§ 109.317 Servicing of inflatable liferafts, inflatable lifejackets and inflated rescue boats.

(a) Each inflatable liferaft, inflatable lifejacket, and hybrid inflatable lifejacket or work vest must be serviced—

(1) Within 12 months of its initial packing; and

(2) Within 12 months of each subsequent servicing, except when servicing is delayed until the next scheduled inspection of the unit, provided that the delay does not exceed 5 months.

(b) Each inflatable liferaft must be serviced—

(1) Whenever the container of the raft is damaged, or the straps or seal broken; and

(2) In accordance with the servicing procedure under Subpart 160.051 of this chapter.

(c) Each inflatable lifejacket must be serviced in accordance with the servicing procedure under Subpart 160.076 of this chapter.

(d) Each hybrid inflatable lifejacket or work vest must be serviced in accordance with the servicing procedure under Subpart 160.077 of this chapter.

(e) Repair and maintenance of inflated rescue boats must be in accordance with the manufacturer's instructions. All repairs must be made at a servicing facility approved by the Commandant (G-MVI), except for emergency repairs carried out on board the vessel.

142. By adding a new § 109.319 to read as follows:

§ 109.319 Periodic servicing of hydrostatic release units.

(a) Each hydrostatic release unit must be serviced—

(1) Within 12 months of its manufacture and within 12 months of each subsequent servicing, except when servicing is delayed until the next scheduled inspection of the unit, provided that the delay does not exceed 5 months; and

(2) In accordance with the repair and testing procedures under Subpart 160.062 of this chapter.

(b) The springs of each spring-tensioned gripe used with a hydrostatic release unit must be renewed when the unit is serviced and tested.

§ 109.320 [Removed]

143. By removing § 109.320.

§ 109.321 [Removed]

144. By removing § 109.321.

145. By revising § 109.323 to read as follows:

§ 109.323 Manning of survival craft and supervision.

(a) A merchant mariner's document endorsement as a lifeboatman or another inclusive rating under Part 12 of this Title is evidence of training in survival craft and serves as a certificate of proficiency. For the purposes of this section, a "certificated person" is a person holding a merchant mariner's document with such an endorsement.

(b) There must be a sufficient number of trained persons on board for mustering and assisting untrained persons.

(c) There must be a sufficient number of deck officers, able seamen, or certificated persons on board to operate the survival craft and launching arrangements required for abandonment by the total number of persons permitted on board.

(d) One person must be placed in charge of each survival craft to be used.

(1) The person in command must be a deck officer, able seaman, or certificated person.

(2) A deck officer, able seaman, or certificated person must be designated second-in-command for each lifeboat permitted to carry more than 40 persons.

(e) The person in charge of each survival craft shall have a list of the survival craft crew and shall see that the crewmembers are acquainted with their duties. The second-in-command of a lifeboat shall also have a list of the lifeboat crew.

(f) Each motorized survival craft must have a person assigned who is capable of operating the engine and carrying out minor adjustments.

(g) The master or person in charge shall make sure the persons required under paragraphs (b), (c), and (d) of this section are equitably distributed among the unit's survival craft.

§ 109.325 [Removed]

146. By removing § 109.325.

§ 109.341 [Removed]

147. By removing § 109.341.

148. By revising § 109.425 to read as follows:

§ 109.425 Repairs and alterations: fire detecting and extinguishing equipment.

(a) Before making repairs or alterations, except emergency repairs or alterations to fire detecting and extinguishing equipment, the master or person in charge shall report the nature of the repairs or alterations to the Officer in Charge, Marine Inspection.

(b) When emergency repairs or alterations to fire detecting or fire extinguishing equipment have been made, the master or person in charge shall report the nature of the repairs or alterations to the Officer in Charge, Marine Inspection.

149. By revising paragraphs (d) and (e) of § 109.433 to read as follows:

§ 109.433 Logbook Entries.

(d) The date when fire drills are held, and details of fire fighting training and fire drills. Each logbook entry must include the following, as applicable:

- (1) The time and date.
- (2) Length of drill or training session.
- (3) Number and lengths of hose used.

(4) Subject of training session.

(5) Statement as to the condition of the equipment used.

(6) If a full drill or training session is not held at the appointed time, the circumstances and the extent of the drill or training session held.

(e) The date when musters are held, details of abandonment drills, drills of other lifesaving appliances and onboard training. Each logbook entry must include the following, as applicable:

- (1) The time and date.
- (2) Length of drill or training session.
- (3) Identification of survival craft used in drills.
- (4) Subject of training session.
- (5) Statement as to the condition of the equipment used.
- (6) If a full muster, drill or training session is not held at the appointed time, the circumstances and the extent of the muster, drill or training session held.

By revising the title of Subpart E to read as follows:

Subpart E—Emergency Signals

§ 109.501 [Removed]

150. By removing § 109.501.

151. By removing and reserving paragraph (a), by revising the section heading, and by revising paragraph (c)(2) of § 109.503 to read as follows:

§ 109.503 Emergency signals.

(a) [reserved]

(c) * * *

(2) If whistle signals are used to direct the handling of lifeboats and davit-launched liferafts, they must be—

(i) One short blast to lower the lifeboats and davit-launched liferafts; and

(ii) Two short blasts to stop lowering the lifeboats and davit-launched liferafts.

§ 109.505 [Removed]

152. By removing § 109.505.

SUBCHAPTER J—ELECTRICAL ENGINEERING

PART 112—EMERGENCY LIGHTING AND POWER SYSTEMS

153. The authority citation for Part 112 is revised to read as follows:

Authority: 46 U.S.C. 2113, 3306, 3703, 4104; 49 CFR 1.46.

Subpart 112.15—Emergency Loads

154. By revising paragraphs (c) and (g) of § 112.15-1 to read as follows:

§ 112.15-1 Temporary emergency loads.

(c) Lighting for passageways, stairways, and escape trunks in passenger quarters, crew quarters, public spaces, machinery spaces, and work spaces sufficient to allow passengers and crew to find their way to open decks and to survival craft muster stations and embarkation stations with all watertight doors and fire-screen doors closed.

(g) Lighting for survival craft launching, including muster stations, embarkation stations, the survival craft, its launching appliance, and the area of the water where it is to be launched. Lights must meet § 111.75-16 and 112.43-11.

155. By adding a new paragraph (u) to § 112.15-5 to read as follows:

§ 112.15-5 Final emergency loads.

(u) Each stabilizer wing and indicator that must be movable to prevent damage to survival craft.

SUBCHAPTER O—CERTAIN BULK DANGEROUS CARGOES

PART 154—SAFETY STANDARDS FOR SELF-PROPELLED VESSELS CARRYING BULK LIQUIFIED GASES

156. The authority citation for Part 154 continues to read as follows:

Authority: 46 U.S.C. 3703; E.O. 12234, 3 CFR, 1980 Comp. p. 277; 49 CFR 1.46.

§ 154.1445 [Removed]

157. By removing § 154.1445

SUBCHAPTER Q—EQUIPMENT, CONSTRUCTION, AND MATERIALS: SPECIFICATIONS AND APPROVAL

PART 160—LIFESAVING EQUIPMENT

158. The authority citation for Part 160 is revised to read as follows and all other authority citations in Part 160 are removed:

Authority: 46 U.S.C. 3306, 3703, 4102, 4302; 49 CFR 1.46.

Subpart 160.040—Line-Throwing Appliance; Impulse-Projected Rocket Type (and Equipment)

159. By revising § 160.040-6 to read as follows:

§ 160.040-6 Marking and labeling.

(a) Each line throwing appliance must be permanently and legibly marked with the—

- (1) Model designation;
- (2) Serial number;
- (3) Coast Guard approval number; and
- (4) Name of the manufacturer.

(b) Each projectile must be permanently and legibly marked with the—

- (1) Model designation;
- (2) Coast Guard approval number;
- (3) Name of the manufacturer;
- (4) Month and year manufactured; and
- (5) Expiration date that must not be more than 48 months after the date of manufacture.

(c) Each primer-ejector cartridge must be permanently and legibly marked with the—

- (1) Model designation;
- (2) Coast Guard approval number;
- (3) Name of the manufacturer;
- (4) Month and year manufactured; and
- (5) Expiration date that must not be more than 48 months after the date of manufacture.

(d) Each container of new service line must be permanently and legibly marked with—

- (1) The name of the manufacturer;
- (2) The month and year manufactured; and

(3) A statement to the effect that in all respects the line meets the applicable requirements of this subpart.

(e) Each faking box and reel must bear the name of the manufacturer.

§§ 160.042-1 through 160.142-5
[Removed]

160. By removing Subpart 160.042 (consisting of §§ 160.042-1 through 160.142-5).

PART 161—ELECTRICAL EQUIPMENT

161. The authority citation for Part 161 is revised to read as follows and all other authority citations in Part 161 are removed:

Authority: 46 U.S.C. 3306, 3703, 4104; 49 CFR 1.46.

§§ 161.006-1 through 161.006-6
[Removed]

161a. By removing Subpart 161.006 (consisting of §§ 161.006-1 through 161.006-6).

SUBCHAPTER R—NAUTICAL SCHOOLS

161b. The following Table of Contents for Part 167 reflects revised Subpart 167.35 to read as follows:

PART 167—PUBLIC NAUTICAL SCHOOL SHIPS

Subpart 167.35—Lifesaving Appliances and Arrangements

Sec.

167.35-1 General.

167.35-5 Emergency signals.

167.35-10 Manning of survival craft and supervision.

Sec.

167.35-90 Operational readiness, maintenance and inspection of lifesaving equipment.

162. The authority citation for Part 167 is revised to read as follows:

Authority: 46 U.S.C. 3306, 6101; 49 CFR 1.46.

Subpart 167.15—Inspections

163. By adding a new § 167.15-27 to read as follows:

§ 167.15-28 Inspection of lifesaving appliances and arrangements.

(a) At each initial inspection, one of the following must be done in the presence of a marine inspector:

(1) The tests and inspections under § 71.20-20(a)(1) of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting passenger vessel requirements.

(2) The tests and inspections under § 91.20-20(a)(1) of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

(b) At each inspection for certification, one of the following must be done in the presence of a marine inspector:

(1) The tests and inspections under § 71.25-15 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting passenger vessel requirements.

(2) The tests and inspections under § 91.25-15 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

164. By revising Subpart 167.35 to read as follows:

Subpart 167.35—Lifesaving Appliances and Arrangements

§ 167.35-1 General.

Lifesaving appliances and arrangements on public nautical school ships must meet the requirements for nautical school ships in Subchapter W of this chapter.

§ 167.35-5 Emergency signals.

The various signals used to call the crew to their stations and to give instructions to the crew must be listed on the station bill required under § 199.80 of this chapter. The signals must meet—

(a) Section 78.13-1 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting passenger vessel requirements, or

(b) Section 97.13-1 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

§ 167.35-10 Manning of survival craft and supervision.

The manning of survival craft and their supervision must meet—

(a) Subpart 78.14 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting passenger vessel requirements, or

(b) Subpart 97.14 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

§ 167.35-90 Operational readiness, maintenance and inspection of lifesaving equipment.

The operational readiness, maintenance, and inspection of lifesaving equipment must be as required under—

(a) Subpart 78.95 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting passenger vessel requirements, or

(b) Subpart 97.90 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

Subpart 167.55—Special Markings Required

165. By revising paragraph (j) and adding paragraphs (k), (l), (m), (n), and (o) of § 167.55-5 to read as follows:

§ 167.55-5 Marking of fire and emergency equipment, etc.

(j) *Lifeboats and rescue boats.* Each lifeboat and rescue boat must be marked as required under—

(1) Section 78.47-60 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting passenger vessel requirements, or

(2) Section 97.37-37 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

(k) *Rigid liferafts.* Each rigid liferaft must be marked as required under—

(1) Section 78.47-62 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting passenger vessel requirements, or

(2) Section 97.37-39 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

(l) *Inflatable liferafts*. Markings for each inflatable liferaft must be as required under—

(1) Section 78.47-63 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting passenger vessel requirements, or

(2) Section 97.37-40 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

(m) *Life floats and buoyant apparatus*. Each life float and buoyant apparatus must be marked as required under—

(1) Section 78.47-64 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting passenger vessel requirements, or

(2) Section 97.37-42 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

(n) *Lifejackets, immersion suits, and ring life buoys*. Each lifejacket, immersion suit, and ring life buoy must be marked as required under—

(1) Section 78.47-65 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting passenger vessel requirements, or

(2) Section 97.37-43 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

(o) *EPIRBs and SARTs*. Each EPIRB and each SART must be marked as required under—

(1) Section 78.47-72 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting passenger vessel requirements, or

(2) Section 97.37-55 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

Subpart 167.65—Special Operating Requirements

166. By revising § 167.65-1 to read as follows:

§ 167.65-1 Abandon-ship training and drills.

(a) Abandon-ship training and drills must be conducted as required under—

(1) Section 78.17-50 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting passenger vessel requirements, or

(2) Section 97.15-35 of this chapter for each public nautical school ship provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

(b) Wherever the term "passenger" is used in § 78.17-50 or § 97.15-35 of this chapter, it shall be interpreted as meaning a—

- (1) Student;
- (2) Cadet; and
- (3) Instructor who is not also a member of the crew.

167. By adding a new § 167.65-2 to read as follows:

§ 167.65-2 Fire drills.

(a) A fire drill must be conducted on each vessel in alternating weeks. The fire drill must not be conducted as part of the abandon-ship drill, nor immediately prior to or after the abandon-ship drill. If a fire drill can not be held during the appointed week due to bad weather or other unavoidable reason, the drill must be conducted at the first opportunity following the time when the drill would normally have been held.

(b) Any member of the crew excused from a fire drill must participate in the next drill, so that each member participates in at least one fire drill each month. If more than 25% of the crew have not participated in a fire drill on board that particular vessel in the previous month, a drill must be conducted before the vessel leaves port if reasonable and practicable, but not later than 24 hours after the vessel leaves port. The Commandant (G-MVI) may accept other arrangements that are at least equivalent for those vessels where this is impractical.

(c) Each fire drill must include:

(1) Summoning of the crew and other persons on board to their stations with the general alarm.

(2) Simulation of a fire emergency which varies from drill to drill.

(3) Reporting to stations, preparing for, and demonstrating the duties assigned under the procedure described in the station bill for the particular fire emergency being simulated.

(4) Starting of fire pumps and use of a sufficient number of outlets to determine that the system is in proper working order.

(5) Bringing out each breathing apparatus and other item of rescue and safety equipment from the emergency equipment lockers, and demonstrating

the use of each item by the person or persons designated to use it.

(6) Operating each watertight door used while the vessel is underway.

(7) Operation of each self-closing fire door.

(8) Closing all fire doors and doors in fire boundaries.

(d) Each fire drill must, as far as practicable, be conducted as if there were an actual emergency.

(e) The date when fire drills are held, and details of fire drills must be recorded in the vessel's official logbook. Each logbook entry must include the following, as applicable:

- (1) The time and date.
- (2) Length of drill.
- (3) Number and lengths of hose used.
- (4) Statement as to the condition of the equipment used.

(5) If a full drill is not held at the appointed time, the circumstances and the extent of the drill held.

§ 167.65-55 [Removed]

168. By removing § 167.65-55.

PART 168—CIVILIAN NAUTICAL SCHOOL VESSELS

169. The authority citation for Part 168 is revised to read as follows:

Authority: 46 U.S.C. 3306; 49 CFR 1.46.

Subpart 168.05—General Requirements

170. By revising § 168.05-5 to read as follows:

§ 168.05-5 Application of passenger vessel inspection regulations.

Except for requirements covered specifically by this part, all of the following regulations applying to passenger vessels apply to each vessel and item of floating equipment used by or in connection with a civilian nautical school:

(a) For vessels 100 gross tons and over, Subchapter H (Passenger Vessels) of this chapter, and all other regulations in this chapter applicable to passenger vessels 100 gross tons and over.

(b) For vessels less than 100 gross tons, Subchapter T (Small Passenger Vessels) of this chapter, and all other regulations in this chapter applicable to passenger vessels less than 100 gross tons.

SUBCHAPTER U—OCEANOGRAPHIC RESEARCH VESSELS

PART 188—GENERAL PROVISIONS

171. The authority citation for Part 188 is revised to read as follows:

Authority: 46 U.S.C. 2113, 3306; 49 CFR 1.46.

172-173. By adding a new Subpart 188.27 to read as follows:

Subpart 188.27—Lifesaving Appliances and Arrangements.

§ 188.27-1 General.

Lifesaving appliances and arrangements on oceanographic research vessels must meet the requirements for special purpose ships in Subchapter W of this chapter.

PART 189—INSPECTION AND CERTIFICATION

174. The authority citation for Part 189 is revised to read as follows:

Authority: 46 U.S.C. 3306; 49 CFR 1.46.

Subpart 189.20—Initial Inspection

175. By revising paragraph (a)(1) of § 189.20-20 to read as follows:

§ 189.20-20 Specific tests and inspections.

(a) * * *

(1) The tests and inspections under § 71.20-20(a)(1) of this chapter for each oceanographic research vessel provided with lifesaving appliances and arrangements meeting passenger vessel requirements, or the tests and inspections under § 91.20-20(a)(1) of this chapter for each oceanographic research vessel provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

* * * * *

Subpart 189.25—Inspection for Certification

176. By revising § 189.25-15 to read as follows:

§ 189.25-15 Lifesaving equipment.

At each inspection for certification, one of the following must be done in the presence of a marine inspector:

(a) The tests and inspections under § 71.25-15 of this chapter for each oceanographic research vessel provided with lifesaving appliances and arrangements meeting passenger vessel requirements.

(b) The tests and inspections under § 91.25-15 of this chapter for each oceanographic research vessel provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

PART 192—LIFESAVING EQUIPMENT

177. By removing and reserving Part 192.

177a. The following Table of Contents for Part 196 reflects new or revised subparts to read as follows:

PART 196—OPERATIONS

Subpart 196.00—Incorporation by Reference

Sec.

196.00-1 Incorporation by reference.

* * * * *

Subpart 196.13—Emergency Signals

196.13-1 Emergency Signals.

Subpart 196.14—Manning of Survival Craft and Supervision

196.14-1 General.

Subpart 196.90—Operational Readiness, Maintenance and Inspection of Lifesaving Equipment

196.90-20 Operational readiness.

Subpart 196.95—Pilot Boarding Operations

* * * * *

178. The authority citation for Part 196 continues to read as follows:

Authority: 46 U.S.C. 3306; 49 CFR 1.46.

179. By adding Subpart 196.00 to read as follows:

Subpart 196.00—Incorporation by Reference

§ 196.00-1 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than the one listed in paragraph (b) of this section, notice of change must be published in the *Federal Register* and the material made available to the public. All approved material is on file at the Office of the Federal Register, 1100 L Street NW., Washington, DC, and at the U.S. Coast Guard, Merchant Vessel Inspection Division (G-MVI), 2100 Second Street SW., Washington, DC 20593-0001, and is available from the source indicated in paragraph (b) of this section.

(b) The material approved for incorporation by reference in this part, and the sections affected are:

International Maritime Organization (IMO)
Publications Section, 4 Albert Embankment,
London SE1 7SR, England

Resolution [LSR 19/WP.4, Annex 3].

"Guidelines Concerning the Use and Fitting of Retroreflective Materials on Life-saving Appliances", June 1987—196.37-37; 196.37-43

180. By revising Subpart 196.13 to read as follows:

Subpart 196.13—Emergency Signals

§ 196.13-1 Emergency signals.

The various signals used to call the crew to their stations and to give instructions to the crew must be listed on the station bill required under § 199.80 of this chapter. The signals must meet—

(a) Section 78.13-1 of this chapter for each oceanographic research vessel provided with lifesaving appliances and arrangements meeting passenger vessel requirements, or

(b) Section 97.13-1 of this chapter for each oceanographic research vessel provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

181. By revising Subpart 196.14 to read as follows:

Subpart 196.14—Manning of Survival Craft and Supervision

§ 196.14-1 General.

The manning of survival craft and their supervision must meet—

(a) Subpart 78.14 of this chapter for each oceanographic research vessel provided with lifesaving appliances and arrangements meeting passenger vessel requirements, or

(b) Subpart 97.14 of this chapter for each oceanographic research vessel provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

Subpart 196.15—Tests, Drills, and Inspections

§ 196.15-25 [Amended]

182. By removing § 196.15-25(a)(3).

183. By revising § 196.15-35 to read as follows:

§ 196.15-35 Abandon-ship training and drills.

(a) Abandon-ship training and drills must be conducted as required under—

(1) Section 78.17-50 of this chapter for each oceanographic research vessel provided with lifesaving appliances and arrangements meeting passenger vessel requirements, or

(2) Section 97.15-35 of this chapter for each oceanographic research vessel provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

(b) Wherever the term "passenger" is used in § 78.17-50 or § 97.15-35 of this chapter, it shall be interpreted as meaning one of the scientific personnel on an oceanographic research vessel for the purposes of this section.

§ 196.15-37 [Removed]

184. By removing § 196.15-37.

185. By revising § 196.15-40 to read as follows:

§ 196.15-40 Fire drills.

(a) A fire drill must be conducted on each vessel in alternating weeks. The fire drill must not be conducted as part of the abandon-ship drill, nor immediately prior to or after the abandon-ship drill. If a fire drill cannot be held during the appointed week due to bad weather or other unavoidable reason, the drill must be conducted at the first opportunity following the time when the drill would normally have been held.

(b) Any member of the crew excused from a fire drill must participate in the next drill, so that each member participates in at least one fire drill each month. If more than 25% of the crew have not participated in a fire drill on board that particular vessel in the previous month, a drill must be conducted before the vessel leaves port if reasonable and practicable, but not later than 24 hours after the vessel leaves port. The Commandant (G-MVI) may accept other arrangements that are at least equivalent for those vessels where this is impractical.

(c) Each fire drill must include:

(1) Summoning of scientific personnel and crew to their stations with the general alarm.

(2) Simulation of a fire emergency which varies from drill to drill.

(3) Reporting to stations, preparing for, and demonstrating the duties assigned under the procedure described in the station bill for the particular fire emergency being simulated.

(4) Starting of fire pumps and use of a sufficient number of outlets to determine that the system is in proper working order.

(5) Bringing out each breathing apparatus and other item of rescue and safety equipment from the emergency equipment lockers, and demonstrating the use of each item by the person or persons designated to use it.

(6) Operating each watertight door used while the vessel is underway.

(7) Operation of each self-closing fire door.

(8) Closing all fire doors and doors in fire boundaries.

(d) Each fire drill must, as far as practicable, be conducted as if there were an actual emergency.

(e) The date when fire drills are held, and details of fire drills must be recorded in the vessel's official logbook. Each logbook entry must include the following, as applicable:

(1) The time and date.

(2) Length of drill.

(3) Number and lengths of hose used.

(4) Statement as to the condition of the equipment used.

(5) If a full drill is not held at the appointed time, the circumstances and the extent of the drill held.

§ 196.15-45 [Removed]

186. By removing § 196.15-45.

§ 196.15-50 [Removed]

187. By removing § 196.15-50.

§ 196.15-65 [Removed]

188. By removing § 196.15-65.

§ 196.15-70 [Removed]

189. By removing § 196.15-70.

190. By revising paragraphs (a)(1) and (a)(6) of § 196.35-5 to read as follows:

§ 196.35-5 Actions required to be logged.

(a) * * *

(1) Abandon-ship training and drills, and fire drills. As held. See §§ 196.15-35 and 196.15-40.

* * * * *

(6) Survival craft winches. Once in each three months. See § 196.90-73.

* * * * *

Subpart 196.37—Markings for Fire and Emergency Equipment, etc.

191. By revising § 196.37-37 to read as follows:

§ 196.37-37 Lifeboats and rescue boats.

(a) The following must be plainly marked or painted on each side of the bow of each lifeboat and rescue boat in letters and numbers at least 75 mm (3 in.) high:

(1) The name of the vessel.

(2) The number of the boat. The boats on each side of the vessel must be numbered from forward to aft. If there are boats on both sides of the vessel, the odd numbers must be on the starboard side.

(3) For vessels in ocean service, the name of the port required to be marked on the stern of the vessel under Subpart 67.13 of this chapter.

(b) The following must be plainly marked or painted on each side of the bow of each lifeboat and rescue boat in letters and numbers at least 35 mm (1.5 in.) high:

(1) The length and beam of the boat.

(2) The number of persons capacity of the boat. This number must—

(i) Be the number of persons the lifeboat is equipped for; and

(ii) Not be greater than the number of persons the boat is approved for, as shown on its nameplate.

(c) The following must be plainly marked or painted on each lifeboat and

rescue boat in at least two places visible from above the boat in letters and numbers not less than 75 mm (3 in.) high:

(1) The number of persons capacity of the boat.

(2) The name of the vessel.

(d) The name of the vessel must be plainly marked or painted on each oar and paddle.

(e) On or before July 1, 1991, each lifeboat and rescue boat must be marked with Type II retroreflective material approved under Subpart 164.018 of this chapter. The arrangement of the retroreflective material must meet IMO Resolution [LSR 19/WP.4, Annex 3].

192. By adding a new § 196.37-39 to read as follows:

§ 196.37-39 Rigid liferafts.

(a) The following must be plainly marked or painted near one entrance of each rigid liferaft in letters and numbers at least 75 mm (3 in.) high:

(1) The name of the vessel.

(2) The number of the liferaft. Liferafts stowed on the sides of the vessel must be numbered in the same manner as the lifeboats.

(3) For vessels in ocean service, the name of the port required to be marked on the stern of the vessel under Subpart 67.13 of this chapter.

(b) The following must be plainly marked or painted near one entrance of each rigid liferaft in letters and numbers at least 35 mm (1.5 in.) high:

(1) Either "SOLAS A Pack" or "SOLAS B Pack" depending upon its equipment under § 199.143(b) or § 199.143(c) of this chapter.

(2) The length of the painter.

(c) The number of persons capacity must be plainly marked or painted over each entrance to each rigid liferaft in letters and numbers at least 100 mm (4 in.) high, in a color contrasting to that of the liferaft. This number must—

(1) Be the number of persons the liferaft is equipped for; and

(2) Not be greater than the number of persons the liferaft is approved for, as shown on its nameplate.

(d) The name of the vessel must be plainly marked or painted on each paddle.

193. By revising § 196.37-40 to read as follows:

§ 196.37-40 Inflatable liferafts.

The number of the liferaft and the number of persons it is permitted to accommodate must be marked or painted in a conspicuous place in the immediate vicinity of each inflatable liferaft in letters and numbers at least 35

mm (1.5 in.) high. Liferrafts stowed on the sides of the vessel must be numbered in the same manner as the lifeboats. This marking must not be on the inflatable liferaft container.

194. By adding a new § 196.37-42 to read as follows:

§ 196.37-42 Life floats and buoyant apparatus.

(a) The name of the vessel must be plainly marked or painted on each life float and buoyant apparatus, together with their oars and paddles.

(b) The number of persons capacity must be plainly marked or painted on each life float and buoyant apparatus in letters and numbers at least 35 mm (1.5 in.) high. This number must—

- (1) Be the number of persons the device is equipped for; and
- (2) Not be greater than the number of persons the device is approved for, as shown on its nameplate.

195. By revising § 196.37-43 to read as follows:

§ 196.37-43 Lifejackets, immersion suits, and ring life buoys.

(a) Each lifejacket, immersion suit, and ring life buoy must be marked in block capital letters with the vessel's name.

(b) Each container for lifejackets and immersion suits must be marked in letters and numbers at least 50 mm (2 in.) high with the number and

identification of the items stowed inside and their size.

(c) Each ring life buoy on a vessel in ocean service must be marked in block capital letters with the name of the port required to be marked on the stern of the vessel under Subpart 67.13 of this chapter.

(d) Each stowage position for a ring life buoy must be marked "LIFE BUOY".

(e) Each lifejacket must be marked with Type I retroreflective material approved under Subpart 164.018 of this chapter. The arrangement of the retroreflective material must meet IMO Resolution [LSR 19/WP.4, Annex 3].

(f) On or before July 1, 1991, each ring life buoy must be marked with Type II retroreflective material approved under Subpart 164.018 of this chapter. The arrangement of the retroreflective material must meet IMO Resolution [LSR 19/WP.4, Annex 3].

Note: Each approved immersion suit is provided with retroreflective material by the manufacturer of the suit.

196. By revising § 196.37-49 to read as follows:

§ 196.37-49 EPIRBs and SARTs.

The name of the vessel must be plainly marked or painted on each Emergency Position Indicating Radio Beacon (EPIRB) and on each Search and Rescue Transponder (SART), except for an EPIRB or SART—

- (a) In an inflatable liferaft; or

(b) Permanently installed in a survival craft.

§ 196.39-1 [Removed]

197. By removing Subpart 196.39 (consisting of § 196.39-1).

198. By revising Subpart 196.90 to read as follows:

Subpart 196.90—Operational Readiness, Maintenance and Inspection of Lifesaving Equipment

§ 196.90-20 Operational readiness.

The operational readiness, maintenance, and inspection of lifesaving equipment must be as required under—

(a) Subpart 78.95 of this chapter for each oceanographic research vessel provided with lifesaving appliances and arrangements meeting passenger vessel requirements, or

(b) Subpart 97.90 of this chapter for each oceanographic research vessel provided with lifesaving appliances and arrangements meeting cargo and miscellaneous vessel requirements.

M.J. Schiro,

*Captain, U.S. Coast Guard, Acting Chief,
Office of Marine Safety, Security and
Environmental Protection.*

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