

**DEPARTMENT OF TRANSPORTATION****Coast Guard**

**46 CFR Parts 30, 31, 32, 33, 35, 70, 71, 75, 77, 78, 90, 91, 94, 96, 97, 107, 108, 109, 125, 133, 167, 168, 188, 189, 192, 195, 196, and 199**

[CGD 84-069]

RIN 2115-AB72

**Lifesaving Equipment**

**AGENCY:** Coast Guard, DOT.

**ACTION:** Interim rule with request for comments.

**SUMMARY:** As part of the President's Regulatory Review Initiative to remove or revise unnecessary government regulations, this interim rule removes numerous obsolete sections from the Code of Federal Regulations and eliminates duplication of other provisions by consolidating the lifesaving requirements for most U.S. inspected vessels into the new subchapter W. This rule revises the lifesaving equipment regulations for U.S. inspected vessels. It implements the provisions of Chapter III of the Safety of Life at Sea Convention 1974, as amended, and revises lifesaving regulations for Great Lakes vessels and certain vessels in domestic trade which are not covered by the Safety of Life at Sea Convention. The rule also replaces many prescriptive regulations with performance-based alternatives. The Coast Guard is requesting public comment on this interim rule because it has been more than 5 years since publication of the notice of proposed rulemaking.

**EFFECTIVE DATES:** This interim rule is effective on October 1, 1996. Comments on this interim rule must be received on or before July 31, 1996. The Director of the Federal Register approves the incorporation by reference of certain publications listed in the regulations as of October 1, 1996.

**ADDRESSES:** Comments may be mailed to the Executive Secretary, Marine Safety Council (G-LRA/3406) [CGD 84-069], U.S. Coast Guard Headquarters, 2100 Second Street SW., Washington, DC 20593-0001, or may be delivered to room 3406 at the same address between 8 a.m. and 3 p.m., Monday through Friday, except Federal holidays. The telephone number is (202) 267-1477. Comments on collection-of-information requirements must be mailed also to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street NW.,

Washington, DC 20503, ATTN: Desk Officer, U.S. Coast Guard.

The Executive Secretary maintains the public docket for this rulemaking. Comments will become part of this docket and will be available for inspection or copying at room 3406, U.S. Coast Guard Headquarters, between 8 a.m. and 3 p.m., Monday through Friday, except Federal holidays.

A copy of the material listed in "Incorporation by Reference" of this rule is available for inspection at room 1404, U.S. Coast Guard Headquarters. Unless otherwise indicated, documents referred to in this preamble are available for inspection or copying at the office of the Executive Secretary.

The revised Chapter III of the Safety of Life at Sea Convention (SOLAS) is published by the International Maritime Organization (IMO) in "SOLAS, Consolidated Edition, 1992" (IMO publication IMO-11OE). The International Maritime Organization also publishes the "Recommendation on Testing of Life-saving Appliances, Resolution A.689(17)" and the other IMO documents incorporated by reference in this rule. The International Maritime Organization publications and documents referred to in this rule are available from the International Maritime Organization, Publications Section, 4 Albert Embankment, London SE1 7SR, England.

In addition, IMO publications are available from the following U.S. sources:

Baker-Lyman & Co., Inc., P.O. Box 838, 3220 South I-10 Service Road, West, Metairie, LA 70004, telephone (504) 831-3685 or (800) 535-6956.

Baker-Lyman & Co., Inc., 8876 Gulf Freeway, Suite 110, Houston, TX 77017, telephone (713) 943-7032.

Labelmaster, 5724 North Pulaski Road, Chicago, IL 60646-6797, telephone (312) 478-0900.

McCurnin Nautical Charts Co., 2318 North Woodlawn Avenue, Metairie, LA 70001, telephone (504) 888-4500.

Marine Education Textbooks, 124 North Van Avenue, Houma, LA 70363-5895, telephone (504) 879-3866.

Maryland Nautical Sales, Inc., 1400 East Clement Street, Baltimore, MD 21230, telephone (410) 752-4268.

Nautical Charts Supply, Inc., 90 Hudson Street, New York, NY 10013, telephone (212) 925-8849.

New York Nautical Instrument & Service Corp., 140 West Broadway, New York, NY 10013, telephone (212) 962-4522.

Safe Navigation, Inc., 820 Long Beach Boulevard, Long Beach, CA 90813, telephone (310) 590-8744.

UNZ & Co., 190 Baldwin Avenue, Jersey City, NJ 07306, telephone (201) 795-5400.

Navigation and Vessel Inspection Circulars (NVIC) and the Coast Guard's Marine Safety Manual are available by subscription from the Government Printing Office, Washington, DC 20402, telephone (202) 783-3238. Previously issued NVICs may be purchased from the U.S. Coast Guard National Maritime Center (Attn: NVIC), 4200 Wilson Boulevard, Suite 510, Arlington, VA 22203-1804, telephone (703) 235-1605.

**FOR FURTHER INFORMATION CONTACT:** Mr. Robert Markle, Chief, Lifesaving and Fire Safety Standards Division (G-MSE-4), U.S. Coast Guard Headquarters, 2100 Second Street, SW., Washington, DC 20593-0001, telephone (202) 267-1444, fax (202) 267-1069. Normal office hours are between 8 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**SUPPLEMENTARY INFORMATION:****Request for Comments**

The Coast Guard encourages interested persons to participate in this rulemaking by submitting written data, views, or arguments. Persons submitting comments should include their names and addresses, identify this rulemaking [CGD 84-069] and the specific section of this interim rule to which each comment applies, and give the reason for each comment. Please submit two copies of all comments and attachments in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. Persons wanting acknowledgment of receipt of comments should enclose stamped, self-addressed postcards or envelopes.

The Coast Guard will consider all comments received during the comment period. It may change this interim rule based on the comments.

The Coast Guard plans no additional public hearings. Persons may request a public hearing by writing to the Marine Safety Council at the address under **ADDRESSES**. The request should include the reasons why a hearing would be beneficial. If it determines that another opportunity for oral presentations will aid this rulemaking, the Coast Guard will hold another public hearing at a time and place announced by a later notice in the Federal Register.

**Regulatory History**

The Coast Guard published an advance notice of proposed rulemaking (ANPRM) in the Federal Register on December 31, 1984 (49 FR 50745). That notice described the major changes under consideration and invited comments on the project.

The Coast Guard published a notice of proposed rulemaking (NPRM) for this rulemaking in the Federal Register on April 21, 1989 (54 FR 16196), and invited comments on its proposals. Fifty-six letters were submitted to the public docket from vessel operators, industry associations, drilling companies, equipment manufacturers, interested individuals, Coast Guard offices, and the National Transportation Safety Board (NTSB). The comments generally supported the regulatory proposals in concept, but many suggested changes to particular provisions in the proposed rule. These comments are addressed in the "Discussion of Comments and Changes" section of this preamble.

A public hearing was held to receive comments on the proposed rules, particularly the provisions affecting passenger ferries. The hearing was announced in a Federal Register notice on October 5, 1989 (54 FR 41124), and the hearing was held in Seattle, Washington, on October 17, 1989. Fifty-nine persons attended the hearing and 18 persons presented oral comments during the hearing. Comments received at the hearing are also discussed in the "Discussion of Comments and Changes" section of this preamble.

On November 16, 1995, the Coast Guard published an interim rule with a request for comments that revised the regulations for offshore supply vessels (OSV) including liftboats [CGD 82-004 and CGD 86-074] (60 FR 57630). That rule created a new subchapter L containing a complete set of regulations applicable to new OSVs. The rule added and reserved 46 CFR part 133 for OSV lifesaving requirements, which are now added to subchapter L by this rule.

This interim rule does not affect small passenger vessels inspected under subchapter T in 46 CFR chapter I. Lifesaving equipment regulations for small passenger vessels were published in an interim rule on January 10, 1996 (61 FR 865), as part of a comprehensive project to revise subchapter T and establish a new subchapter K covering larger small passenger vessels with higher carriage capacities [CGD85-080].

This rule is being published as an interim rule and the Coast Guard is seeking comments on it, because publication of the NPRM occurred more than 5 years ago. If warranted by the comments, the Coast Guard may revise these regulations before their effective date.

This project is part of the President's Regulatory Review Initiative to remove or revise unnecessary government regulations. This project removes numerous obsolete sections from the

Code of Federal Regulations (CFR) and eliminates others by consolidating the lifesaving requirements for most U.S. inspected vessels into the new subchapter W. Subchapter W also replaces many prescriptive regulations with performance-based alternatives.

#### Review of NPRM

On June 17, 1983, the International Maritime Organization (IMO) Maritime Safety Committee approved the 1983 Amendments to SOLAS, including a new Chapter III (Lifesaving Appliances and Arrangements). The new SOLAS requirements came into force on July 1, 1986, for the United States and all other contracting governments. The Safety of Life at Sea Convention applies to ships on international voyages, except—

- (1) Ships of war and troopships;
- (2) Cargo ships (including tankers) under 500 tons gross tonnage;
- (3) Ships not propelled by mechanical means;
- (4) Wooden ships of primitive build;
- (5) Pleasure yachts not engaged in trade; and
- (6) Fishing vessels.

In addition to the changes necessary to conform lifesaving requirements to SOLAS, the Coast Guard has made a number of other revisions to the lifesaving system regulations for inspected vessels in domestic services in response to problems identified through investigations into casualties that had occurred over a 25-year period. The Coast Guard Authorization Act of 1984 also directed improvements in the lifesaving systems on passenger ferries.

The Coast Guard considered many provisions of the regulations existing at the start of this rulemaking to be obsolete. Some regulatory provisions dated back to the 1940s. The NPRM, therefore, proposed a new subchapter W in 46 CFR chapter I, which would contain requirements for the number and type of lifesaving appliances and arrangements on tank vessels, cargo vessels, passenger vessels over 100 tons gross tonnage, oceanographic vessels, nautical school vessels, OSVs, and mobile offshore drilling units (MODU). The structure of the proposed subchapter W closely paralleled SOLAS, Chapter III, even though its provisions applied to vessels in domestic services as well as to those subject to SOLAS. The Coast Guard also proposed to remove the lifesaving provisions in the various individual vessel subchapters throughout 46 CFR chapter I, which would be consolidated into subchapter W. Only provisions related to lifesaving system inspections, operations, and drills were proposed to be left in the individual vessel subchapters.

#### Overview of Interim Rule

This interim rule revises vessel lifesaving equipment carriage regulations in 46 CFR chapter I, for tank vessels, cargo and miscellaneous vessels, MODUs, passenger vessels, nautical school vessels, OSVs, and oceanographic research vessels. Revisions are included in 46 CFR chapter I, subchapter I-A for MODUs and subchapter L for OSVs. The remaining provisions are consolidated in a new subchapter W of 46 CFR chapter I. Subchapter W replaces most of the lifesaving equipment regulations currently individually prescribed in separate subchapters applicable to tank vessels, cargo and miscellaneous vessels, passenger vessels, nautical school vessels, and oceanographic research vessels.

The NPRM proposed to remove the lifesaving requirements from 46 CFR chapter I, subchapter I-A for MODUs, and publish them in the new subchapter W. As a result of the offshore industry's comments and a recommendation by the Coast Guard's National Offshore Industry Advisory Committee, however, the revised lifesaving regulations for MODUs will remain in subchapter I-A. For the same reason, the lifesaving regulations for OSVs, including liftboats, are being placed in subchapter L rather than subchapter W.

#### Relationship to SOLAS and Recent SOLAS Revisions

The Coast Guard has compared the regulations in this interim rule to the international standards in SOLAS and has determined that this rule does not unnecessarily establish requirements in excess of international standards. This rule removes some requirements that were proposed in the NPRM that exceeded the requirements in SOLAS.

Since the 1983 SOLAS Amendments were adopted, a number of other amendments to Chapter III of SOLAS have been adopted. The Coast Guard, anticipating some of these changes, proposed them in the NPRM and they are included in this interim rule. Other changes to SOLAS clarify or create alternative ways of meeting SOLAS requirements. These changes are also included in this interim rule. New SOLAS requirements that were not proposed in the NPRM or that do not offer alternatives are not part of this interim rule. All of these provisions are discussed in the "Discussion of Comments and Changes" section of this preamble.

#### Organization of Subchapter W

Subparts A, B, C, and D of subchapter W are based on Chapter III of SOLAS.

Section numbers in subparts A, B, C, and D of subchapter W are generally related to the regulation numbers in Chapter III of SOLAS, but paragraph designations are not related to the numbering in Chapter III of SOLAS. To find the corresponding SOLAS, Chapter III regulation for subparts A, B, C, and D of subchapter W, beginning with § 199.10, divide the section number following the decimal point by 10. Subparts E and F of subchapter W set out the requirements for vessels that are not subject to SOLAS and provide for exceptions and alternatives to the SOLAS requirements.

#### Discussion of Comments and Changes

##### *Comments*

The Coast Guard received 74 comments on the NPRM that consisted of both letters to the docket and remarks at the public hearing. The following paragraphs contain and analysis of comments received and an explanation of any changes if any, made in the rules.

Numerous comments noted editorial problems in the NPRM. The Coast Guard has incorporated these comments where appropriate, but the changes are not discussed in detail in this preamble. Some other comments addressed subjects beyond the scope of the revisions proposed in the NPRM. These comments are also not discussed in detail. Comments that generally supported the NPRM, or that disagreed with the NPRM but failed to provide reasoning for the disagreement, are also not addressed in this preamble.

Two comments stated that the full impact of the NPRM could not be accurately assessed until: (a) the effects of the International Tonnage Convention (ITC) on U.S. law are determined; (b) subchapter L (OSVs) is published; (c) proposed subchapter T revisions are known; and (d) sections of subchapter W that apply to boats regulated under subchapters L and T are known. The impact of this rule is discussed more fully in the Regulatory Impact Analysis to this rule and the "Regulatory Evaluation" section of this preamble.

The ITC applies to all vessels on international voyages over 24 meters (79 feet) in length that were built after July 18, 1994. Vessels built on or before July 18, 1994, on international voyages may continue to use their domestic tonnage to determine their tonnage-based requirements for the life of the vessel, unless major alterations are made to the vessel.

The lifesaving requirements applying to OSVs, which were proposed in the NPRM to be part of subchapter W, are now being published as part of

subchapter L. An interim rule promulgating subchapter L, which applies only to OSVs, including liftboats was published on November 16, 1995 (60 FR 57630). This should eliminate any confusion concerning what lifesaving requirements apply to OSVs. Vessels must be less than 500 tons gross tonnage to be inspected as OSVs under subchapter L. Any vessel in the offshore service business which is 500 tons gross tonnage or over, would have to meet the applicable lifesaving requirements of subchapter W.

The interim rule for small passenger vessels regulated under subchapter T and K was published on January 10, 1996 (61 FR 865). The Coast Guard invites comments on the impact of this rule as it relates to the provisions of the ITC and subchapters L, T, and K.

Several comments objected to the SOLAS lifesaving rules under subchapter W being applied to all vessels, regardless of their type or service. This rule does not apply SOLAS rules to all vessels. Section 199.10(b) excludes non-self-propelled vessels from the lifesaving equipment regulations if these vessels do not have accommodation or work spaces on board. For other vessels, the SOLAS, Chapter III regulations provide the basis for the structure of subchapter W. Many of the SOLAS requirements apply broadly to lifesaving system installations on all vessels. Subparts A, B, C, and D of subchapter W set out the requirements for vessels on international voyages that are subject to SOLAS and are based on SOLAS, Chapter III. Subparts E and F of subchapter W set out the requirements for vessels that are not subject to SOLAS and provide for exceptions and alternatives to the SOLAS requirements. The Coast Guard has deleted provisions proposed in the NPRM that were in excess of SOLAS unless there is good cause for their retention. Most of the deleted provisions were Coast Guard interpretations of SOLAS requirements that do not need to be included in these regulations, or were additional requirements with marginal safety benefits. The Coast Guard has also decided to consolidate all of the regulations related to SOLAS, Chapter III in subchapter W. The NPRM had proposed locating only the lifesaving equipment and arrangement regulations in subchapter W. The regulations pertaining to onboard inspection of lifesaving equipment proposed in the NPRM were to be included in the inspections part in each of subchapters D, H, I, and U. Similarly, requirements for drills and for marking of lifesaving equipment were also proposed to be

placed in the operations part of each of these subchapters. The organization of this interim rule eliminates needless duplication of these regulations in different parts of the CFR.

The Coast Guard intends that SOLAS and other international instruments be the basis for safety requirements on U.S. vessels. To this end, § 199.03(b) states that any vessel carrying a valid Passenger Ship Safety Certificate supplemented by a Record of Equipment, or a valid Cargo Ship Safety Equipment Certificate supplemented by a Record of Equipment, is considered to have met the requirements of subchapter W if the vessel also complies with several specific additional requirements listed. This will make compliance with Coast Guard regulations easier for designers and operators who use SOLAS as a basis for designing and equipping a vessel. A similar provision is included in § 108.503 for MODUs built to the IMO MODU Code. None of the items on the list are major cost items.

Several comments indicated a need for flexibility in the rules, with one comment suggesting that the Officer in Charge, Marine Inspection (OCMI), should be able to exercise discretion in determining lifesaving equipment requirements. The Coast Guard agrees with the comment, and has included rules that provide for certain exceptions and equivalents to be authorized by the Commandant (G-MSE), for exemptions to be granted by the Coast Guard District Commander, and for alternatives that may be accepted by the OCMI. See §§ 199.09, 199.20(d), and 199.40(e).

Several comments suggested that "SOLAS approved" equipment should be accepted by the Coast Guard. There is no internationally recognized "SOLAS approved" equipment in the sense implied by the comment. Under SOLAS, each national maritime safety authority approves or accepts equipment meeting SOLAS requirements for its own vessels. The degree of enforcement of the SOLAS requirements varies widely. The Coast Guard approves equipment that meets the SOLAS requirements and must be used on U.S. registered vessels. However, Coast Guard-approved equipment may not always be readily available, for example, in foreign ports. Under the provisions of § 199.40(e), the OCMI has sufficient authority to accept foreign-approved equipment on a case-by-case basis, when warranted.

A number of comments addressed specific test and inspection procedures proposed in the NPRM. Some comments proposed deletion of certain details while others proposed more testing and

inspection. In response to the comments, the testing and inspection requirements in this rule are significantly simplified compared to those proposed in the NPRM. This rule establishes test objectives and performance standards rather than detailed complex requirements for the conduct of the tests. This simplifies the sections on these inspections and tests, and makes them consistent with the level of detail presented in the regulations on other initial and subsequent inspections for vessel certification. This will allow flexibility in the test procedures. These tests and inspection requirements appear in § 199.45.

#### *Specific Provisions*

One comment suggested that the ring lifebuoys arranged for quick release from the navigation bridge be required to fall clear of the vessel under all circumstances. The Coast Guard agrees with the comment and now requires that the ring lifebuoy fall directly into the water without striking the vessel. See §§ 199.70(a)(v) and 108.590(a)(iv).

Section 199.620(d)(2) has been added to allow a new type of lifejacket that has been approved since publication of the NPRM on domestic services. These extended-size lifejackets are approved for adults as well as some larger children. If an operator uses these lifejackets, the number of child-size lifejackets carried to meet the requirements in § 199.70(b)(1)(i) may be reduced. To take the reduction in child-size lifejackets, extended-size lifejackets that have the same lower size limit must be substituted for all of the required adult lifejackets. The number of child-size lifejackets required depends on the lower size limit of the extended-size lifejackets and is calculated using one of the formulas given in § 199.620(d)(2). The vessel operator still has the responsibility under § 199.70(b)(1)(i) to make sure that the vessel has a lifejacket of suitable size for each person on board.

One comment suggested the deletion of proposed § 199.72(c), which contained special requirements for additional lifejackets on Great Lakes vessels that have forward berthing or working spaces widely separated from messing or recreational spaces aft. The comment indicated that, with some minor revisions, the provisions for additional lifejackets in proposed § 199.72(a)(1)(ii) would be sufficient to require the necessary lifejackets in these spaces. The Coast Guard agrees and has revised § 199.70(b)(2)(iii) to address the stowage of these additional lifejackets.

The NTSB urged the Coast Guard to require lifejackets for all passengers to be located at muster stations on passenger ships in addition to those lifejackets required to be stowed in passenger cabins. The NTSB had previously recommended that lifejackets and immersion suits be stowed outside of passenger and crew berthing rooms and closer to, or at, emergency stations. The Coast Guard does not agree that lifejackets should always be stowed at muster stations. However, §§ 199.70(b)(2)(v) and 199.212(b) are based on current SOLAS requirements and, taken together, will ensure that sufficient lifejackets for passengers are available at, or near, the muster stations on passenger ships.

Proposed §§ 199.78(a) (3) and (4) on stowage details for lifejackets have been removed from this rule. Also removed are the details on whistles and how to secure them to lifejackets, which were in proposed § 199.76 of the NPRM. Detailed requirements on the assignment of immersion suits to passenger vessel crewmembers in proposed §§ 199.214 (a) and (b) have also been removed. There are no similar requirements in SOLAS, and in accordance with the policy previously discussed, the Coast Guard has decided not to impose these additional requirements because of their marginal safety benefits.

The Coast Guard has deleted a proposed requirement for at least one certificated person to be assigned to a lifeboat for every 20 passengers. The proposed requirement in the NPRM was consistent with regulations effective at the time, but is in excess of the current SOLAS requirement. The Coast Guard has decided not to impose this additional requirement on U.S. vessels. See § 199.100(c).

Several comments opposed the proposed requirement in § 199.110(d) of the NPRM for all survival craft embarkation stations to be located where it is not necessary to climb up more than three steps or stairs. One comment stated that the requirement was not clear because of the various deck levels, stairways, and ladders that are involved in the design of a ship. The Coast Guard has deleted this section in this rule. There is no similar requirement in SOLAS and, in accordance with the policy previously discussed, the Coast Guard has decided not to impose this additional requirement because of its marginal safety value.

One comment stated that the proposed requirement for rotation-resistant wire rope in § 199.153(b) of the NPRM (§ 199.153 (a) in this rule) should

only apply to installations in which single point boat connections are used. The Coast Guard disagrees. Wire ropes that twist easily can lead to tangles at the winch or to tangles in multiple-part falls after a boat has been launched. Rotation-resistant wire rope is a SOLAS requirement for all launching appliances using falls and it is an appropriate requirement for launching appliances even on vessels not subject to SOLAS.

In response to the request to allow for flexibility in compliance expressed by some comments, the descriptions of some of the items of equipment in § 199.175(b) have been simplified by eliminating unnecessary detail. Coast Guard Navigation and Vessel Inspection Circular (NVIC) 2-92 contains detailed recommendations for survival craft equipment and describes options and inspection criteria that can not be easily or appropriately covered in the regulations.

One comment suggested that the Coast Guard should amend the requirement that at least one drill be held at night every 3 months by removing the master's discretion to determine that a night drill would be unsafe. The comment further stated that it should be possible to safely hold at least one drill at night in a 3-month period. Another comment suggested removing the restriction on conducting abandon-ship drills and fire drills immediately after each other. The Coast Guard has decided to delete both requirements from § 199.180 because they are not in SOLAS, Chapter III. Scheduling of required drills is left to the master's discretion.

One comment noted the difficulty and expense in obtaining replacement rockets for rocket-propelled line-throwing appliances. Modern line-throwing appliances of this type are self-contained units, which include the rocket, service line, and the firing mechanism. This arrangement makes them much easier to use. If the rocket is fired during a drill, the complete unit must be replaced or else it must be partially disassembled so that the rocket may be replaced. In the latter case, if the unit is not reassembled properly, it could misfire in an actual emergency. For these reasons, the Coast Guard has changed the line-throwing appliance drill regulations in §§ 199.180(e) and 109.213(e) to allow actual firing of a line-throwing appliance to be at the discretion of the master. The rockets have a 4-year expiration date and the Coast Guard anticipates that actual firings will be conducted using rockets near their expiration dates.

Several comments suggested that existing cargo and tank vessels in ocean, coastwise, and Great Lakes services should not have to comply with the proposed requirement to retrofit totally enclosed lifeboats and gravity davits, noting that SOLAS does not have such a requirement. Five comments stated that enclosed lifeboats and gravity davits were unjustified and costly to U.S. operators on the Great Lakes, causing a competitive disadvantage with Canadian and tug/barge operators who do not have to meet retrofit regulations. One comment suggested that davit-launched inflatable liferafts should be used for the retrofit aboard Great Lakes vessels instead of lifeboats. In 1994, the United States proposed to an IMO subcommittee that totally enclosed lifeboats and gravity davits be required on SOLAS ships by January 1, 2006. While there was support for the proposal, the requirement was not adopted. Therefore, the Coast Guard has removed the requirement for retrofitting of totally enclosed lifeboats and gravity davits as proposed in the NPRM.

Some comments objected to the proposed Coast Guard regulations requiring ring lifebuoys that exceeded the number required under SOLAS on certain larger cargo vessels. The Coast Guard agrees and has reduced the number of ring lifebuoys required for passenger ships in ocean and short international voyage service in § 199.271 to the numbers required by SOLAS.

Several comments were concerned about the proposed requirement in § 199.157(a) that lifeboats be capable of being launched with the vessel making headway of at least 5 knots. Some believed that this would be a dangerous drill requirement. This is not a drill requirement but rather, is a performance-based design requirement. Others were concerned that this was a new requirement with which it would be difficult to comply. In fact, it is possible to meet this requirement with on-load release devices and painter arrangements that have been used on U.S. vessels for over 40 years. It is a feature needed not only on ships, but on MODUs as well. Although MODUs are usually at a fixed location, they may need to launch survival craft in a current. This requirement is included in the MODU regulations at § 108.555(a). For vessels regulated under subchapter W, § 199.280(c) follows SOLAS by limiting the requirement to cargo vessels over 20,000 tons gross tonnage.

The NPRM proposed a prohibition on aluminum lifeboats and davits on tank vessels and MODUs. The proposal was based on experiences in which

aluminum boats were destroyed in transitory deck fires and were subsequently not available when the ship had to be abandoned. One comment suggested that an aluminum lifeboat should be permitted if it is protected at its stowage location by a water spray, noting that this was being permitted by marine safety administrations in other countries. The Coast Guard agrees with the comment and this rule, therefore, permits aluminum lifeboats and davits on tank vessels and MODUs when a water spray system is provided. See §§ 199.290(b) and 108.515(d).

A number of comments were received regarding the radio lifesaving equipment requirements proposed in the NPRM. Since the NPRM was published, the Federal Communications Commission (FCC) published a final rule implementing the Global Maritime Distress and Safety System (GMDSS) on U.S. vessels (57 FR 9063, March 16, 1992). The GMDSS is an automated, worldwide, ship-to-shore, distress alerting system that relies on satellite and advanced terrestrial communications systems. The FCC rules cover most vessels that the Coast Guard inspects for ocean and coastwise service. Among other requirements, the FCC rules include two-way VHF radiotelephone apparatus, satellite emergency position indicating radiobeacons (EPIRB), and survival craft radar transponders (SART). The FCC rules do not, however, require radio lifesaving equipment for all vessels that were covered by the requirements proposed in the NPRM. Therefore, this rule includes EPIRB requirements in § 199.510 for vessels operating on the Great Lakes as well as for cargo vessels and OSVs less than 300 tons gross tonnage in ocean and coastwise service. Under § 199.610(m), these vessels have until February 1, 1999, to comply with the satellite EPIRB requirement. This is the date established by SOLAS for full worldwide implementation of GMDSS.

One comment stated that corrosion of wire rope falls was not as significant a problem on vessels operating on the Great Lakes as on vessels operating in salt water services and therefore, the requirement to change the falls at intervals of not more than 5 years was excessive. The Coast Guard agrees and has excluded vessels operating in fresh water services from compliance with the requirement. See § 199.610(a)(4).

The NPRM proposed that survival craft not be required for vessels in Great Lakes service, and in lakes, bays, and sounds service that operate within 3 miles of shore where the water is less than 1 meter (3.3 feet) deep. This

shallow water exemption has been revised to be consistent with that in subchapters T and K for small passenger vessels. Survival craft will not be required on vessels in Great Lakes service; lakes, bays, and sounds service; or river service if the vessel operates within 3 miles of shore in areas where the vessel cannot sink deep enough to submerge the topmost deck or where the OCMI determines that survivors can wade ashore. See table 199.630(a) in conjunction with § 199.630(h) and table 199.640(a) in conjunction with § 199.640(f).

One comment suggested that lifeboats for dry cargo vessels be required to be equipped with self-contained air support systems due to the large amounts of flammable liquids and poisons carried as packaged cargo and ship's stores. Although the Coast Guard agrees that toxic atmospheres and fire on the water are a possible problem in some casualties involving dry cargo ships, this does not justify the suggested requirement, which would exceed the SOLAS requirements.

#### Passenger Vessels Not on International Voyages

The NPRM proposed that passenger vessels on unlimited ocean routes be required to have the same lifesaving systems as required by SOLAS for ships on international voyages and that vessels in coastwise service (i.e., within 20 miles of the coastline) be required to have the same lifesaving systems as required by SOLAS for ships on short international voyages. In response to concerns raised by operators of vessels that operate on domestic voyages beyond 20 miles but within 50 miles, this interim rule allows vessels in domestic services that operate out to 50 miles offshore to comply with the SOLAS short international voyage requirements. This is also consistent with an operational category for small passenger vessels in the interim rule for subchapters K and T. See table 199.620(a) in conjunction with § 199.630(c).

One ferry operator, objecting to the proposal for ferries to carry inflatable buoyant apparatus (IBA) sufficient to accommodate 110 percent of the number of persons on board, stated that ferries should be given consideration for equivalence of safety requirements based on their design and area of operation (protected waters in proximity to land and quick assistance). Another comment pointed out that current safety measures, such as vessel traffic services, bridge-to-bridge communications, close proximity of other vessels, radar systems, and stringent personnel

qualifications, make ferry operations safer than in the past. However, another comment supporting the survival craft proposals pointed out that the present regulations were originally written over 40 years ago and were relevant to an era when ferries were smaller, slower, carried fewer hazardous materials, and operated in less congested waters. Another comment writer did not believe the NPRM adequately justified the need for the proposed requirements for ferries operating in lakes, bays, and sounds service. Several comments pointed out that no ferry casualties were identified in support of the proposed rules and that the probability of a ferry casualty that would require abandonment was very low, considering all of the safety measures presently in effect. Cost to acquire and service inflatable buoyant apparatus, to train crewmembers, and to possibly provide otherwise unnecessary crewmembers in order to launch the inflatable buoyant apparatus and help passengers embark was a major issue for ferry operators. An organization of ferry passengers did not want to pay for inflatable buoyant apparatus either through higher fares or increased taxes. Other comments, acknowledging that ferry casualties were rare, were concerned about the high number of deaths and injuries that would occur in the event of a severe ferry accident.

The 1984 Coast Guard Authorization Act directed improvement in the lifesaving equipment on passenger ferries. This Congressional direction followed publication of a report on "Improving Maritime Traffic Safety on Puget Sound Waterways," prepared by the University of Washington. This report cited the lack of liferafts on Puget Sound, Alaska, ferries as a potential problem considering the numerous close encounters that ferries are involved in and the potential catastrophic results that would accompany a casualty because these ferries may carry as many as 2,500 passengers. However, the safety record for these ferries in terms of lives lost is very good, with no recorded fatalities from accidents over the last 35 years. One of the contributors to the University of Washington report stated,

[e]xperience relating to very low probability, very high consequence accidents, like the possible sinking of a ferry with a large number of passengers aboard, indicates they are impossible to predict. Statistical models are not meaningful. Thus the admirable safety record of the Washington State Ferry System, in my opinion, can not be used as an argument to say that either no major accident will happen in the future, since none have occurred to date, or that one is likely to happen by the law of averages \* \* \*

While concentration on incident avoidance is prudent, some consideration of consequence mitigation is also warranted.

The comment indicated that while "liferafts" (sic) were an example of such consequence mitigation, he had not necessarily concluded that liferafts were the proper choice of consequence mitigation.

The Coast Guard's position is that all of the comments have merit. Even though serious casualties involving ferries and other passenger vessels in domestic services have been rare, because of the potential hazard to large numbers of people, the possibility of such casualties needs to be appropriately addressed. Therefore, in table 199.630(a) and § 199.630(d), ferries and passenger vessels are required to carry a sufficient number of IBAs having an aggregate capacity that is sufficient to accommodate the total number of persons on board. Under certain lower-risk circumstances described in § 199.630(g), operators can reduce the number of IBAs to provide an aggregate capacity sufficient to accommodate 67 percent of the persons on board. (IBAs are tested to a 50 percent overload condition to make sure they can accommodate extra people in clam water.) Recognizing that abandoning the vessel into IBAs introduces its own hazards and that vessels operating in certain areas may be able to obtain assistance in other ways, table 199.630(a) and § 199.630(f) provide an alternative for ferries and other passenger vessels without overnight accommodations that operate in the Great Lakes service; in lakes, bays, and sounds service; or in river service. The alternative provides that vessels may have a safety assessment approved by the OCMI that includes, among other things, consideration of the waterway and other traffic in the operating area and development of a comprehensive shipboard safety management and contingency plan.

Comments from operators of passenger vessels other than ferries also expressed concern over the expense of adding lifesaving equipment. They also cited the excellent safety record of these vessels in recent years. Nevertheless, these vessels carry large numbers of people, especially gaming vessels. The gaming vessel industry did not exist when the NPRM was published in 1989. Gaming vessels do not usually move passengers from one port to another, nor do they ordinarily engage in voyages such as sight-seeing for the enjoyment of passengers. Some vessels although fully capable of navigation, do not normally leave the dock, and other vessels operate over short distances in protected

"moats." For these reasons, the Coast Guard specifically invites comments on lifesaving requirements that should be applicable to these vessels. As is the case for ferries, even one abandon-ship incident in which large numbers of passengers could not be accommodated in survival craft would be unacceptable. The Coast Guard considers the hazard to persons aboard gaming vessels to be similar to those presented by passenger ferries. They carry passengers in a high density configuration, do not have overnight accommodations, and typically operate on a fixed route and schedule in a limited geographic area. Therefore, the Coast Guard has applied the requirements for emergencies to these vessels that are similar to ferries operating on the same waters.

#### Cargo and Tank Vessels Operating on the Great Lakes

The NPRM proposed that cargo and tank vessels in Great Lakes service be required to carry totally enclosed lifeboats launched by gravity davits with an aggregate capacity sufficient to accommodate 100 percent of the persons on board and liferafts served by launching appliances also meeting the aggregate capacity requirement. The NPRM proposals contrast with ocean and coastwise vessels requirements to carry lifeboats and float-free liferafts with an aggregate capacity sufficient to accommodate 100 percent of persons on board. The Great Lakes proposal represented an upgrade over the existing regulations.

One comment suggested that Great Lakes vessels be required to carry the same survival craft as vessels in ocean service. Other comments suggested that totally enclosed lifeboats and gravity davits would not enhance crew survivability aboard Great Lakes vessels and that the current lifesaving systems were adequate. Some comments suggested the use of davit-launched inflatable liferafts (presumably 100 percent each side) aboard Great Lakes vessels in lieu of lifeboats. Some comments on the NPRM noted that Great Lakes vessels are also required to carry immersion suits so in the event survivors have to enter cold water to get to a survival craft, they still have a good chance of being rescued. The comments noted that the Great Lakes casualty reports discussed in the NPRM indicated that rapid launching and hypothermia protection were the main needs in Great Lakes lifesaving systems rather than additional lifeboats.

The Coast Guard agrees with the comments stating that rapid launching and hypothermia protection are the primary needs for Great Lakes vessels.

The Coast Guard does not agree, however, that lifesaving systems need to be the same on the Great Lakes as for ocean and coastwise voyages. Therefore, the rules are retained as proposed in the NPRM. Although conditions on the Great Lakes can be just as severe as conditions in ocean waters, the fact that the Great Lakes are bounded on all sides by a shoreline means that a search operation for a major vessel casualty on the Great Lakes would probably be completed much faster than on ocean waters. This is especially true because the Coast Guard is also requiring these vessels to carry 406 MHz satellite EPIRBs.

#### Offshore Industry—MODUs and OSVs

Various comments from the offshore industry, including members of the National Offshore Safety Advisory Committee (NOSAC), opposed the inclusion of MODUs and OSVs under subchapter W. The comment writers requested that the Coast Guard keep the regulations for these vessels as self-contained as possible. As discussed in the "Overview of the Interim Rule" section of this preamble, the Coast Guard has put the revised lifesaving regulations for OSVs into subchapter L and has retained the lifesaving requirements for MODUs in subchapter I–A, where they have been located since the original publication of subchapter I–A. One exception is that, under § 108.500(b), requirements for surface-type units (drillships) will be the same as those for tank vessels under subchapter W. Unlike other MODUs, drillships have ship-shaped hulls and have problems similar to tank ships in the case of a casualty requiring abandonment of the vessel. This is consistent with the treatment of surface-type units under the MODU Code.

#### MODUs

Consistent with the Coast Guard's policy of aligning national standards with international standards, the regulations for MODU lifesaving systems are based on the IMO MODU Code for the construction of new MODUs. Three comments from the offshore industry opposed adoption of MODU Code standards as part of the U.S. regulations. This opposition was focused on the requirement for additional lifeboats. Following the MODU Code means a requirement for 200 percent capacity in lifeboats on most MODUs, contrasted with the present subchapter I–A requirement for 100 percent lifeboats and 100 percent davit-launched liferafts. One comment stated that none of the investigations of recent MODU accidents recommended

increasing the number of lifeboats and that requiring lifeboats in lieu of liferafts was not justified because of such considerations as cost, weight, and size. Other comments indicated that davit-launched liferafts could not be effectively used on MODUs. Davit-launched liferafts were originally developed for launching down the straight sides of conventional ships. They are very light in weight compared to lifeboats and are therefore subject to wind and wave action in the relatively unprotected position beneath a MODU in distress. Because liferafts are not powered, they are subject to being driven into and damaged by the legs and columns of the MODU once they are released from the falls, unless they can immediately establish a tow from a lifeboat or rescue boat.

The Coast Guard agrees with the comments citing the shortcomings of davit-launched liferafts on MODUs and concludes that davit-launched liferafts should only be used on the small self-elevating units where there are no other options, as proposed in the NPRM. The Coast Guard does not agree with comments that indicate additional lifeboats on larger units are unnecessary. Even though there may have been no specific recommendations in the casualty reports to indicate the need for additional lifeboats, the abandonment of the OCEAN RANGER showed how lifeboats may be rendered unusable in a casualty and result in insufficient lifeboats for those on board. Another casualty to the Norwegian semi-submersible accommodation platform ALEXANDER L. KIELLAND also resulted in lost lifeboats. The Coast Guard has retained regulations based on the MODU Code with certain exceptions. See part 108, subpart E of these rules.

Several comments stated that the station bill requirements proposed in § 199.645 of the NPRM should not apply to MODUs because this information was required to be included in the operating manual currently required under 46 CFR 109.121. The Coast Guard does not agree. Section 109.121(c)(22) requires the operating manual to cover procedures for evacuating personnel from the unit, but this does not replace the station bill. The station bill has been renamed muster list in accordance with the internationally accepted term. The muster list requirements are located in § 108.901 of these rules and replace the station bill requirements currently in §§ 109.501 and 109.505.

One comment suggested revision of proposed § 199.650(d) to require that all survival craft be able to be launched only with the unit in a normal working

position or a normal floating intact transit condition. The purpose of the revision was to prevent problems for certain mat-supported self-elevating units on which the mat footprint extends beyond the sides of the hull. In certain transit conditions with the mat fully retracted, some of the survival craft might be launched onto the mat. The Coast Guard agrees in principle with the comment. The problem is addressed in § 108.550(c)(2), which authorizes the OCMI to allow a reduction in the total number of survival craft when the unit is in the transit mode and the number of personnel on board is reduced. In such cases, sufficient survival craft must be available for use by the total number of personnel remaining on board. This should resolve the problem because although personnel on board are normally reduced in transit, they must still be provided with a way to evacuate.

One comment suggested that proposed § 199.650(e)(3), which stated "the location and orientation of each lifeboat [on a MODU] must take into consideration the in-water operating capabilities of the lifeboat," was vague and should be deleted. The Coast Guard agrees that the proposed wording was vague. In this rule, § 108.550(f)(3) states "the location and orientation of each lifeboat must be such that the lifeboat is either headed away from the unit upon launching, or can be turned to a heading away from the unit immediately upon launching."

Two comments stated that the written and audiovisual training material requirements in § 109.213(a) were intended for conventional SOLAS ships and not MODUs. The Coast Guard disagrees. This material is prepared by all lifesaving equipment manufacturers and is available for equipment used on MODUs as well as for equipment on conventional vessels.

Several comments were concerned about the requirement now in § 109.213(g) to provide abandonment training on MODUs within two weeks after crew or industrial personnel join the unit. The comments stated that the word "orientation" should be substituted for "training," and that this orientation should take place within 2 days. The Coast Guard believes that the immediate orientation given to persons as they first arrive at a MODU should continue. This orientation may include some of the elements the on board training required, but it does not necessarily replace the training requirement. The use of the term "join the unit" is intended to provide some flexibility with regard to the extent of training given to itinerant contractor personnel.

Several comments questioned the need to periodically replace falls on MODUs, as required in § 109.301(j), if the falls were thoroughly inspected and found satisfactory. The Coast Guard does not agree that it is possible to adequately inspect falls visually so the requirement has been retained. The NPRM noted that casualties had occurred as a result of lifeboat falls that parted due to deterioration. The Coast Guard is aware of newly developed nondestructive inspection equipment for wire rope falls, but has not been able to determine its suitability or practicality. It is possible that, in the future, use of such equipment could allow thorough fall inspections and continued use of falls in good condition, but use of such inspection equipment will not be authorized at the current time.

#### OSVs

The NTSB's comments opposed the continued use of lifefloats as survival craft on OSVs operating in the Gulf of Mexico because these devices do not protect against hypothermia. The Coast Guard agrees that hypothermia can be a problem in the Gulf of Mexico and that lifefloats and buoyant apparatus do not keep survivors out of the water. However, the casualty record of these vessels does not indicate that a change is needed. The Coast Guard believes that lifefloats should continue to be acceptable because, as a result of the addition of satellite EPIRBs on these vessels and the volume of marine traffic associated with the offshore oil industry in the Gulf of Mexico, rescue should come rapidly. This provision is in § 133.105(c).

The NTSB also opposed the exemption of liftboats from the requirement for having launching appliances for liferafts. The comment noted that, if the vessel were elevated and it became necessary to abandon ship, launching appliances might be crucial. The Coast Guard does not agree with the comment and has not changed this provision of the rule. A liftboat is a specialized type of OSV with movable legs capable of raising its hull above the surface of the sea. The operating characteristics of liftboats make the use of liferaft launching appliances highly unlikely. Liftboats exist for the sole purpose of servicing offshore structures, such as production platforms. Liftboats come alongside these structures and the liftboat's legs are jacked down so that the liftboat's deck elevates out of the water to the level of the structure's deck. If there is an emergency aboard the liftboat, crew can simply walk over onto the structure. If there is an emergency

on the structure, the liftboat would jack down and move away. If there is a leg failure on a liftboat, it will collapse into the water where it has a very low freeboard, making launching appliances unnecessary. See § 133.150(c)(5).

#### New 1996 SOLAS Amendments

The International Maritime Organization has developed a new set of amendments to SOLAS, Chapter III, which were recently adopted and are contained in the 1996 SOLAS Amendments. These amendments will come into force July 1, 1998. The 1996 SOLAS Amendments remove the performance and construction requirements for lifesaving appliances from Chapter III of SOLAS and put them into a new mandatory Lifesaving Appliances Code (LSA Code). The requirements for the number and arrangement of lifesaving appliances on ships remain in SOLAS, Chapter III along with regulations concerning their operation and maintenance. These amendments also contain some new and some revised regulations, which are included in this interim rule to the extent that they were anticipated and proposed in the NPRM. New regulations that were not proposed in the NPRM, but which provide alternatives or lessened requirements, are also included. The following paragraphs summarize the more significant revisions to SOLAS, Chapter III in the 1996 SOLAS Amendments and explain the way they are addressed in this interim rule. The Coast Guard is adopting certain of these SOLAS revisions in subchapter W so that it will be in line with the SOLAS requirements when they come into force. Comments are invited on these new provisions.

The 1996 SOLAS Amendments revise the installation requirements for free-fall lifeboats on cargo ships. Free-fall lifeboats were included as an option in the 1983 SOLAS Amendments and in the NPRM. To the extent that the revisions do not impose more stringent requirements than those in the NPRM, they are included in this interim rule. Specifically, special requirements for free-fall lifeboat launching arrangements are in §§ 199.110(e), 199.120(b), 199.150(c), and 199.157.

Anti-exposure suits are allowed in the 1996 SOLAS Amendments as an option to immersion suits for the crews of rescue boats and marine evacuation systems. Immersion suits are intended as survival equipment in cold water and, as such, they can be bulky and restrictive. Anti-exposure suits can be designed to be practical working suits and can still provide reasonable hypothermia protection. This interim

rule, like SOLAS, allows this option in § 199.70(c). Several comments on the NPRM objected to the immersion suit requirement for rescue boat crews on vessels and MODUs operating between 32 degrees north and 32 degrees south latitude because immersion suits are not required in these latitudes for the rest of the persons on board. The Coast Guard agrees, and SOLAS 1996 also allows exemption from the requirement in warm climates. Therefore, the exemption is contained in this interim rule under §§ 199.70(c)(1), 108.580(c)(1), and 133.70(c)(1).

The 1996 SOLAS Amendments require clear deck space to accommodate all persons assigned to muster stations, but at least 0.35 square meters (3.75 square feet) per person. Neither the 1983 SOLAS Amendments nor the NPRM under this docket included this minimum area requirement. Therefore, this requirement is not included in this interim rule. Nevertheless, any ship built after July 1, 1998, engaged in international voyages will have to comply.

The 1983 SOLAS Amendments required that as far as practicable, survival craft be stowed in a secure and sheltered position and protected from damage by fire and explosion. The NPRM proposed that, on tankers, survival craft stowage locations be protected from the cargo tank area by the deckhouse or A-class divisions. The 1996 SOLAS Amendments only require that survival craft on tankers not be stowed on or above a cargo tank, slop tank, or other tank containing explosive or hazardous cargoes. This interim rule includes this less strict requirement in § 199.290(c).

The 1983 SOLAS Amendments allowed the use of marine evacuation systems in place of davit-launching systems for liferafts. Marine evacuation systems consist of a slide or chute to provide passage to a water-level platform, from which liferafts are boarded. The 1983 SOLAS Amendments did not contain any requirements for installation, training, drills, or servicing of these appliances. The 1996 SOLAS Amendments do include installation, training, drill, and servicing requirements, and they are included in this interim rule. Since marine evacuation systems are optional, these requirements would only affect operators who choose this option. See §§ 199.145, 199.150(b), and 199.201(b). Marine evacuation systems have also been added as alternatives to liferaft launching devices discussed in subchapters I-A and L. See §§ 108.525, 108.545, 133.145, and 133.150(c).



The 1996 SOLAS Amendments require that recovery of a rescue boat be possible in not more than 5 minutes in moderate sea conditions when the rescue boat is loaded with its full complement of persons and equipment. This requirement was not contemplated in the NPRM and is therefore not included in this rule.

The 1996 SOLAS Amendments require that rescue boat embarkation and recovery arrangements allow for safe and efficient handling of a stretcher case. This requirement has been included in this interim rule, because the Coast Guard believes that rescue boat embarkation and recovery arrangements generally meet this requirement, and that this requirement can generally be met at the design stage at no additional expense. The requirement is in § 199.160(c)(1).

The 1996 SOLAS Amendments revised the requirements for passenger safety instructions. The Coast Guard believes that these requirements present no additional burden on the operator and they have therefore been included in § 199.180(b).

The 1983 SOLAS Amendments required falls to be turned end-for-end every 2½ years and replaced every 5 years. The 1996 Amendments allow an alternative for fall designs that can not be turned end-for-end. These falls can be examined periodically and replaced at least every 4 years. The alternative has been included in § 199.190(j).

The 1983 SOLAS Amendments required all engines in lifeboats and rescue boats to be operated each week for at least 3 minutes. The 1996 Amendments add that, during this period of time, it should be demonstrated that the gear box and gear box train are engaging satisfactorily. It also provides for alternatives for rescue boat outboard engines that can not be run out of water for 3 minutes. These provisions have been included in § 199.190(d)(2).

Numerous accidents have occurred as a result of poor launching appliance and lifeboat release gear condition, which is largely due to inadequate maintenance or infrequent servicing. The 1996 SOLAS Amendments contain specific requirements for periodic servicing of this equipment. These servicing requirements have been included in § 199.190(i). In general, the servicing requirements do not exceed the maintenance and inspection that a prudent operator now performs to ensure that lifesaving equipment is in working order and ready for immediate use. The SOLAS requirements adopted in this rulemaking are consistent with

current manufacturers' instructions on maintenance of this equipment.

The 1996 SOLAS Amendments state that, for a davit-launched survival craft on passenger ships, the height of the davit head with the survival craft in embarkation position shall, as far as practicable, not exceed 15 meters (50 feet) to the waterline when the ship is in its lightest seagoing condition. This is not a requirement, but a strong recommendation to designers to avoid excessively high stowage locations for survival craft on passenger ships. This provision has been included in § 199.230(c) as a recommendation and not a new requirement.

Another SOLAS, Chapter III revision adopted in 1991 after the NPRM was published affected fire training and drill requirements in regulation 18, Chapter III of SOLAS. Those requirements were not substantially different than those proposed in the NPRM and they are, therefore, included in this rule at § 199.180(f).

#### Incorporation by Reference

1. The following material is incorporated by reference in § 108.101: American Bureau of Shipping (ABS)—Rules for Building and Classing Offshore Mobile Drilling Units, ANSI A14.3, ANSI Z89.1, American Petroleum Institute (API)—API Spec 2C with supplement 2, ASTM F-1121, Federal Specification ZZ-H-451 F, IMO Resolution A.520(13), IMO Resolution A.658(16), IMO Resolution A.760(18), NFPA 407, NFPA 496, and Underwriters Laboratories (UL)—UL 19-78.

2. The following material is incorporated by reference in § 125.180: IMO Resolution A.520(13), and IMO Resolution A.760(18).

3. The following material is incorporated by reference in § 199.05: ASTM F1003, ASTM F1014, IMO Resolution A.520(13), IMO Resolution A.604(15), IMO Resolution A.657(16), IMO Resolution A.760(18), IMO Resolution A.212(VII), and IMO Resolution A.328(IX).

Copies of the material are available for inspection where indicated under **ADDRESSES**. Copies of the material are available at the addresses in §§ 108.101, 125.180, and 199.05.

The Coast Guard has submitted this material to the Director of the Federal Register for approval of the incorporation by reference.

#### Assessment

This interim rule is not a significant regulatory action under section 3(f) of Executive Order 12866. However, due to its nature, it has been reviewed by the Office of Management and Budget under

that order. It requires an assessment of potential costs and benefits under section 6(a)(3) of that order. It is not significant under the regulatory policies and procedures of the Department of Transportation (DOT) (44 FR 11040; February 26, 1979).

An interim assessment has been prepared and is available in the docket for inspection or copying where indicated under **ADDRESSES**. The Assessment is summarized as follows.

This interim rule applies to all existing and new U.S. inspected passenger vessels 100 tons gross tonnage and over, cargo vessels, tankships, manned cargo and tank barges, oceanographic research vessels, nautical school vessels (with the exception of sailing school ships), OSVs, and MODUs. Coast Guard records list 1,012 existing vessels that do not have SOLAS, MODU, or Special Purpose Vessel Code certificates (161 passenger vessels, 120 cargo vessels, 48 tankships, 12 manned barges, 4 oceanographic research vessels, 8 nautical school vessels, 567 OSVs, and 92 MODUs) are currently operating under the U.S. flag, and will be affected by this interim rule. Because the regulations in this interim rule are based on SOLAS, the IMO MODU Code, and the IMO Special Purpose Vessel Code, vessels with certificates indicating compliance with these standards will not be substantially affected by this interim rule. Therefore vessels with SOLAS, MODU, or Special Purpose Vessel Code certificates are not included in the regulatory analysis.

#### Discussion of Comments

Several comments to the NPRM suggested that the estimated cost to comply with implementation requirements and the recurring cost to vessel owners were understated. One comment estimated implementation cost for the proposed requirements to be \$3 million and that it would affect seven specific passenger ferries. Another comment provided calculations to support an implementation cost estimate of \$562,500 per passenger ferry.

The requirements in this interim rule are different from or less than those proposed in the NPRM. This interim rule contains fewer refit requirements for existing vessels and also provides alternatives for passenger ferries which provide a lower cost alternative. For example, if a passenger ferry operating on a lakes, bays, and sounds service chooses to have an approved safety assessment rather than fit additional survival craft, the cost of the assessment will be substantially less than the costs for additional survival craft estimated in

the NPRM. The cost estimates in this summary and in the assessment reflect the requirements of this interim rule and have taken into account the cost estimates provided by the passenger ferry industry.

#### Industry Costs

Industry cost for this interim rule is estimated based on the implementation cost to existing vessels, the implementation cost to new vessels, and the recurring cost to all vessels for replacement of appliances as they become unseaworthy.

Compliance cost of this interim rule will total about \$19.2 million. The present value of the costs will total \$16 million. This reflects a 7 percent discount to 1996 of the projected future estimated costs of this interim rule in accordance with current Office of Management and Budget guidance. Passenger vessels account for an estimated 50 percent of total costs; cargo vessels, tankships, and manned barges together account for an estimated 13 percent of total costs; and oceanographic research vessels, nautical school vessels, OSVs, and MODUs account for the remainder. A discussion of costs for each requirement follows.

The costs associated with the interim rule on lifesaving appliances and arrangements were developed based on vessel type, vessel use, and average vessel size. Cost analysis calculations were based upon the following assumptions: (1) the interim rule will come into effect on October 1, 1996, for all requirements except a requirement for retro-reflective material on all lifesaving appliances (required as of October 1, 1997), the carriage of immersion suits and thermal protective aids on passenger vessels (required as of October 1, 2001), and the number and type of survival craft required for certain vessels (required as of October 1, 2001); (2) the estimate of annual new vessels affected by this interim rule is directly proportional to the number of vessels that will be annually retired from the U.S. fleet; therefore, the vessel population will remain constant; (3) the average capacity of a passenger vessel was estimated to be 500 persons; (4) the average capacity on all other affected vessels was estimated to be 50 persons; (5) no costs for this rule were associated with existing vessels presently carrying a SOLAS certificate; (6) both costs and benefits developed for this rulemaking are discounted at 7 percent back to 1996; (7) recurring cost items are annualized based on the average life of each lifesaving appliance or equipment; and (8) all recurring costs are calculated through the year 2001.

*Survival Craft for MODUs.* As required by § 180.525, new MODUs, except for small self-elevating units, must increase their lifeboat capacity. Lifeboats having an aggregate capacity of twice the number of persons on board would be typical. The lifeboats will cost about \$400,000 each. The requirements in § 108.550(c), that new MODUs provide greater clearance for lifeboats and liferafts from MODU structures, could amount to \$200,000 per lifeboat or liferaft installation, for a total cost of \$600,000 to comply with both requirements.

*MODUs—Float-Free Liferafts.* The cost of replacing davit-launched liferafts with float-free liferafts as required in § 108.525(a)(2) applies to newly constructed MODUs. This replacement will result in an estimated cost savings of \$60,000 per vessel.

*Distress Signals.* The cost to replace distress signals as required in §§ 108.595(b), 133.60(b), and 199.60(c) applies to all vessels on oceans, coastwise, and Great Lakes services. Each vessel is required to have a minimum of 12 rocket parachute flares. Vessels on Great Lakes services are offered an alternative to use hand flares. The annual recurring cost of this requirement to industry, based on a 3-year replacement schedule, is estimated to be \$123,280.

*Lifejacket Lights.* The cost of lifejacket lights meeting SOLAS standards required in §§ 108.580(b), 108.580(c), 199.70(b), and 199.70(c) applies to cargo vessels 500 tons gross tonnage and over, and all other vessels on ocean and coastwise services except for OSVs. Additionally, the cost will vary based on vessel type. Lifejacket light costs were based on the added cost of a light (\$5) for each jacket. There is no implementation cost associated with this requirement for new vessels and existing vessels. Lights are already required by regulation and are only required to be upgraded if they become unseaworthy. The annual recurring cost, based on a 5-year replacement schedule, is estimated to be \$15,200.

*Lifejackets with Increased Freeboard.* The cost of new lifejackets with the greater freeboard required by SOLAS standards, as cited in §§ 108.580(b) and 199.70(b) applies to MODUs and all vessels on ocean and coastwise services, with exceptions to OSVs, and will vary based on the vessel size. The additional cost is estimated to be \$1,200 for each passenger vessel and \$120 for each other vessel. The annual recurring cost is estimated to be \$29,400.

*Lifebuoy Lifelines.* The cost to replace lifebuoy lifelines as required in §§ 108.580(a)(2), 133.70(c)(4), and

199.70(a)(3) applies to all vessels. The cost per vessel is estimated to be \$20. The annual recurring cost, based on a 5-year replacement schedule, is estimated to be \$4,048.

*Emergency Instructions.* The cost of emergency instructions required in §§ 108.901(c), 133.80, and 199.80 applies to all vessels and will vary based on vessel size and amount of accommodations on board. The new vessel and existing vessel implementation cost of generating the emergency instructions is estimated to be \$50 per vessel. The copy cost required for posting is estimated to be minimal. Therefore, the total cost to industry for this requirement is \$50,600. No recurring costs were associated with this requirement.

*Operating Instructions.* The cost of operating instructions required in §§ 108.655, 133.90, and 199.90 applies to all vessels and will vary based on the vessel size. The new vessel and existing vessel implementation cost of generating the instructions is estimated to be \$50 per vessel. The cost for copying materials required for posting is estimated to be minimal. The total cost to industry for this requirement is \$50,600. No recurring costs were associated with this requirement.

*Manning and Supervision.* There is no cost directly associated with the requirements of §§ 109.323 and 199.100. The interim rule does not require the hiring of additional crew because current U.S. manning requirements are sufficient to meet this condition. The training costs associated with this requirement are reflected in the costs for drills and onboard training.

*Falls.* The cost to renew falls as required in §§ 109.301(j) and 199.190(j) applies to all vessels except for MODUs, and vessels in services limited to fresh water. The cost will vary based on vessel type and size. Each set of falls costs about \$2,500. The annual recurring cost to industry to replace falls, based on a 5-year replacement, is estimated to be \$1,050,000.

*Inspection for Certification.* The additional cost to inspect and certify vessels as required in § 199.45 applies to all new vessels and will vary based on vessel size. The cost to inspect and certify small vessels, which include OSVs and manned barges, is estimated to be \$2,000 each. Large vessels, which include all other vessels affected by the interim rule, are estimated to cost \$5,000 each. The annual cost to industry is estimated to be \$80,000.

*Launching Appliances for High Freeboard Vessels.* The high speed launching appliances as required in §§ 108.553 and 199.153 applies to about

25 percent of all new MODUs and cargo/tank vessels. The cost per vessel is estimated to be \$5,000.

*Line Thrower Firings.* The cost of annual line thrower firings as required in § 190.170 has been eliminated. It applies to all vessels carrying line-throwing appliances, which are self-propelled vessels on ocean services with the exception of tankships, which are not required to conduct firing under the present regulations. The annual cost savings to industry is estimated to be \$556,000.

*Drills and Onboard Training.* The cost to provide onboard training as required in §§ 109.213 and 199.180 applies to all vessels, with exception of OSVs, and will vary based on vessel size. The cost attributed to the time loss due to performing drills is negligible because drills are presently required by regulation. The only difference between present requirements and the requirement in this rule is that some drills will now be training sessions. The annual costs associated with the additional training sessions and related expenses are estimated to be \$2,000 each for large vessels and \$500 each for small vessels. The total implementation and annual recurring costs to existing and new vessels for this requirement are estimated to be \$872,000.

*Maintenance of Equipment.* The maintenance of equipment as required by §§ 109.301 and 199.190 applies to all vessels, with exception of OSVs, and those operating on lakes, bays, and sounds services, and rivers services. No new vessel implementation or recurring cost is associated with this requirement. Existing vessel implementation costs for the requirement to carry spare parts is estimated to be \$100 per vessel and is applicable to about 802 vessels. The total existing vessel implementation cost to industry for this requirement is estimated to be \$24,500. No recurring costs were estimated for this requirement.

*Partially Enclosed Lifeboats.* The cost of partially enclosed lifeboats as required in § 199.202 applies to newly constructed oceangoing passenger vessels. The added cost per vessel is estimated to be \$50,000.

*Totally Enclosed Lifeboats.* The cost of totally enclosed lifeboats as required in § 199.261 applies to newly constructed cargo vessels. The added cost per vessel is estimated to be \$50,000.

*Fire Protected Lifeboats.* The cost of fire protected lifeboats as required in § 199.261 applies to newly constructed tank vessels. The added cost per vessel is estimated to be \$60,000.

*Cargo Vessel Immersion Suits.* The requirement to carry immersion suits for all persons on board as required by § 199.273 applies to all cargo vessels. This requirement affects cargo vessels not limited to operating between 32 degrees north latitude and 32 degrees south latitude. No cost is associated with this requirement because existing regulations mandate suits on all cargo vessels.

*Emergency Position Indicating Radio Beacons (EPIRBs).* The cost to install EPIRBs as required by §§ 133.60(a) and 199.510 applies to all vessels. However, because the FCC presently has a requirement for EPIRBs, the new and existing vessel implementation cost of this rule will only affect cargo vessels and OSVs less than 300 tons gross tonnage and all vessels operating on the Great Lakes. The cost of an EPIRB is estimated to be \$1,200 for each vessel. The estimated total implementation cost to industry for this requirement for new and existing vessels is \$649,200. Because these vessels are provided an alternative of using an existing EPIRB until 1999, if fitted before October 1, 1996, the implementation costs associated with this requirement are evenly distributed over the years 1997 through 1999. Recurring cost for this requirement was estimated based on a 5-year replacement schedule for the EPIRB batteries. These batteries were estimated to cost \$400 per EPIRB. The recurring cost for this requirement to the industry is estimated to be \$43,280.

*Retro-Reflective Material on all Floating Appliances.* The cost to equip floating appliances with retroreflective material as required by §§ 108.515(a)(2), 133.10(b)(2), and 199.10(i)(1)(i) applies to all vessels. The new and existing implementation cost will vary based on the number of lifeboats, rescue boats, and other lifesaving appliances each vessel is required to carry. It is estimated that vessels will have to fit about 40 items with retro-reflective material at a cost of \$5 per item. Therefore, the total implementation cost to industry to meet this requirement is estimated to be \$197,800. The recurring cost of this requirement is estimated to be \$25 per vessel. The total annual recurring cost to industry is estimated to be \$25,300.

*Equipment for Lifeboats.* The cost of periodically replacing certain equipment required by §§ 108.575(b), 133.175(b), and 199.175(b), applies to all vessels, with the exception of OSVs, and those operating on lakes, bays, and sounds services, and rivers services, and will vary based on vessel type. It is estimated that passenger vessels will spend about \$500 annually per vessel

on replacement equipment and other vessels will each spend about \$50 annually per vessel. The total annual recurring cost to industry for this requirement is estimated to be \$16,300.

*Rescue Boats.* The cost of the replacing rescue boats as required by §§ 108.560, 133.135, and 199.202 applies to existing and new passenger vessels on lakes, bays, and sounds service, and Great Lakes service. The cost of a rescue boat is estimated to be \$50,000. The recurring annual cost to industry based on a 25-year replacement schedule is estimated to \$272,000.

*Passenger Vessel Immersion Suits and Thermal Protective Aids.* The cost of immersion suits and thermal protective aids as required by § 199.214 applies to passenger vessels not limited to operating between 32 degrees north and 32 degrees south latitude. Where applicable, passenger vessels must carry at least three immersion suits or anti-exposure suits for each lifeboat on the vessel. It is estimated that 9 passenger vessels must provide 3 immersion suits for 8 lifeboats at a cost of \$1,200 per lifeboat. Thermal protective aids are also required on these vessels for each person not provided with an immersion suit. The thermal protective aids were estimated to cost \$35 each. The estimated total new and existing implementation cost to industry to meet this requirement is \$141,750. No recurring costs are associated with this requirement.

*Survival Craft for Passenger Vessels.* The type and number of survival craft required by § 199.201 affects all passenger vessels. Alternatives to these requirements for passenger vessels in certain services are provided in § 199.630. Vessel operators may choose alternatives for meeting survival craft requirements. It is estimated that 50 percent of the passenger vessel population will choose the option to develop a safety management and contingency plan. Operators will spend an estimated \$10,000 *per operator* to develop the safety management and contingency plan and possibly demonstrate some aspect of it. Some additional equipment or vessel modifications might be required to implement the plan, for an estimated non-recurring cost of \$10,000 per vessel. The remaining 50 percent of passenger vessels will increase the number of inflatable buoyant apparatus (IBAs) to accommodate either 100 percent or 67 percent of the passenger population, where applicable. The existing vessel implementation cost for passenger vessels required to accommodate 100 percent of the passengers with IBAs is estimated to be \$70,000 assuming 10 50-

person IBAs are required on the average 500-passenger ferry. In addition, these IBAs will have to be installed on the vessel, and in some cases launching or boarding appliances may be required. This could amount to an additional \$40,000 per vessel, for a total cost of \$110,000 per vessel. Additionally, the IBAs must be serviced annually. Assuming \$400 per IBA in servicing fees, this will amount to a recurring annual cost of about \$4,000 per year per vessel.

*Survival Craft for Cargo Vessels.* As required by § 199.261(b)(2), ocean and coastwise cargo/tank ships and manned barges must increase their float-free liferaft capacity by 50 percent. This additional liferaft will cost about \$4,000 per vessel installed. The raft will have to be serviced annually at an estimated cost of \$400 for each servicing.

*Davit Launched Liferaft.* The cost of davit-launched liferafts on one side for 100 percent capacity as required in § 199.640(d) applies to newly constructed cargo vessels on Great Lakes services. The cost per vessel is estimated to be \$30,000.

#### Government Costs

The cost of this interim rule to the Federal government includes costs to the Maritime Administration (MARAD). About 1 percent of MARAD's active fleet is involved in commercial service; therefore, requiring compliance with this interim rule. The MARAD commercial fleet is comprised of six freight ships and four tank ships. The total implementation costs to MARAD's existing vessels are an estimated \$39,812. MARAD's annual cost to upgrade equipment as it becomes unseaworthy is estimated to be \$33,659.

State and local governments account for 8 percent of the affected population, or about 75 ferries and other vessels regulated under subchapter H. The total implementation cost to existing state vessels is estimated to be about \$1.9 million, assuming that 50 percent of the ferries opt for a safety management and contingency plan that does not involve additional lifesaving equipment. The recurring annual cost to existing and new vessels is estimated to be \$358,567.

#### Total Costs

The total costs of this interim rule are \$8,463,250 in implementation costs to existing vessels and \$10,742,972 in recurring annual costs to existing and new vessels. Costs of the interim rule are forecast to 2001. Vessel owners must meet the interim rule's requirements beginning October 1, 1996. Exceptions hold for the following requirements: (1)

the type of survival craft for certain vessels as required in §§ 199.10(i)(1)(ii), 199.261(b)(2), and 199.630; and (2) immersion suits and thermal protective aids for certain passenger vessels as required in §§ 199.10(i)(1)(iii) and 199.214. Both have a 5-year phase-in period, ending October 1, 2001. Another exception to the October 1, 1996, date is the requirement for retro-reflective material on all floating appliances, and certain operational requirements listed in §§ 108.515(a)(2), 133.10(b)(2), and 199.10(i)(1)(i), which will be required on October 1, 1997. Costs are estimated at \$2,739,290 in 1997; \$4,224,933 in 1998 and 1999; and \$4,008,533 in 2000 and 2001. The present value of the costs of this interim rule discounted at 7 percent to 1996 is estimated to total \$11,259,277.

#### Cost-Benefit Evaluation

A benefit analysis that accounts for the overall improvement in lifesaving appliances and arrangements realized by this interim rule was completed by researching 475 Coast Guard rescue cases, relating these cases to the risk associated with the potential for losing a life at sea on the affected vessel fleet, and estimating how many of these potential lost lives would be saved by the implementation of this interim rule. Rescue case data was reviewed from the Coast Guard's Search and Rescue Mission Information System (SARMIS) over the past 5 years. The criteria for selecting the case data included the likelihood of the case type to result in a person entering the water. For example, cases involving a collision or sinking were reviewed but drift and ice bound cases were not included. Because SARMIS only records vessel length, the case data for this analysis was not differentiated based on the vessel's gross tonnage but rather on the vessel's length overall (LOA). The following vessel LOA estimates were used to assess vessel tons gross tonnage: an LOA of over 100 feet was used to assess passenger vessels over 100 tons gross tonnage (subchapter H); an LOA between 66 to 200 feet was used to assess OSVs (subchapter L); an LOA of over 200 feet was used to assess cargo vessels—including manned barges (subchapter I); an LOA of over 66 feet was used to assess tank vessels—including manned barges (subchapter D); an LOA of over 66 feet was used to assess nautical school vessels and research vessels; and all MODU data entries were used.

The overall improvement in lifesaving appliances and arrangements realized by this interim rule were estimated by estimating the 5-year case data on Coast

Guard rescues and recording the number of lives at risk (lives lost and saved by the Coast Guard) due to each type of vessel casualty that would be likely to result in a person entering the water for each vessel type. The casualty types considered in this interim rule were capsizing, fire and explosion, flooding and sinking, and collisions.

The number of lives at risk considered for each casualty and vessel type was then adjusted to reflect current Coast Guard rescue effectiveness. This adjusted range of lives at risk calculation was done by multiplying the Coast Guard's Search and Rescue program effectiveness for lives saved (90 percent) to the range of lives at risk calculated for each casualty type. For example, according to the SARMIS data, there were 99 lives lost due to capsizing, 25 lives lost due to fire and explosion, 0 lives lost due to flooding and sinking, and 0 lives lost due to collision over the past 5 years on passenger vessels over 100 feet in length. The adjusted number of lives at risk on passenger ships follows: (99 lives multiplied by .10) plus (25 lives multiplied by .10) plus (0 lives multiplied by .10) plus (0 lives multiplied by .10).

The probability that the improved lifesaving appliances and arrangements will increase the rescue likelihood of lives at risk was estimated based on the adjusted calculations. For capsizing casualties, the probability of this interim rule increasing a person's rescue was estimated to be between 5 and 15 percent. This was determined by considering the positive effects of increased survival craft availability, visibility, and the effectiveness of crew training on egress. For fire and explosion casualties, the probability of this interim rule increasing a person's rescue was estimated to be between 0 and 5 percent. This was determined by considering the positive effects of increased standards for stowage arrangements of survival craft on new vessels, availability of survival craft in remote locations, and the effectiveness of crew training on fire fighting and abandonment. For flooding and sinking casualties, the probability of this interim rule increasing a person's rescue was estimated to be between 2 and 8 percent. This was determined by considering the positive effects of increased standards for launching arrangements of survival craft on new vessels and the effectiveness of muster lists and emergency instructions. For collision casualties, the probability of this interim rule increasing a person's rescue was estimated to be between 1 and 5 percent. This was determined by considering the positive effects of

requirements for emergency communication capabilities, drill requirements, and improved equipment capabilities.

Factoring in the effectiveness estimated to adjusted range of lives at risk for passenger vessels becomes the accumulation of the following: capsizing risks range from .5 to 1.5 lives (9.9 lives at risk multiplied by .05) and (9.9 lives at risk multiplied by .15); fire and explosion risks range from 0 to .13 lives; flooding and sinking calculations result in 0 lives; and collision calculations result in 0 lives. Therefore, the benefits from this interim rule for passenger vessels over the next 5 years range from .5 lives to 1.63 lives saved.

This calculation was done for the remaining vessel types. For cargo vessels over 200 feet in length, 0 lives were lost due to capsizing, 84 lives were lost due to fire and explosion, 147 lives were lost due to flooding and sinking, and 0 lives were lost due to collision over the past 5 years. Using this method the estimated adjusted range of lives at risk for cargo vessels becomes the following: capsizing calculations result in 0 lives; fire and explosion risks range from 0 to .4 lives; flooding and sinking risks range from .3 to 1.2 lives; and collision calculations result in 0 lives. Therefore, the benefits from this interim rule for cargo vessels over the next 5 years range from .3 lives to 1.6 lives saved.

For tank vessels over 66 feet in length, 0 lives were lost due to capsizing, 66 lives were lost due to fire and explosion, 26 lives were lost due to flooding and sinking, and 0 lives were lost due to collision over the past 5 years. Using this method the estimated adjusted range of lives at risk for tank vessels becomes the following: capsizing calculations result in 0 lives; fire and explosion risks range from 0 to .3 lives; flooding and sinking risks range from .1 to .2 lives; and collision calculations result in 0 lives. Therefore, the benefits from this interim rule for tank vessels over the next 5 years range from .1 lives to .5 lives saved.

For OSVs 66 to 200 feet in length, 18 lives were lost due to capsizing, 11 lives were lost due to fire and explosion, 136 lives were lost due to flooding and sinking, and 7 lives were lost due to collision over the past 5 years. Using this method the estimated adjusted range of lives at risk for OSVs follows: capsizing risks range from .1 to 2.7 lives; fire and explosion risks range from 0 to .1 lives; flooding and sinking risks range from .3 to 1.1 lives; and collision risks range from .01 to .04 lives. Therefore, the benefits from this interim rule for

OSVs over the next 5 years range from .41 lives to 3.94 lives saved.

For MODUs of all lengths, 0 lives were lost due to capsizing, 25 lives were lost due to fire and explosion, 16 lives were lost due to flooding and sinking, and 0 lives were lost due to collision over the past 5 years. Using this method the estimated adjusted range of lives at risk for MODUs follows: capsizing calculations result in 0 lives; fire and explosion risks range from 0 to .125 lives; flooding and sinking risks range from .03 to .13 lives; and collision calculations result in 0 lives. Therefore, the benefits from this interim rule for MODUs over the next 5 years range from .03 lives to .25 lives saved.

For nautical school and research vessels, insufficient data was found in order to assess them independently. However, the Coast Guard finds that the benefits realized by this interim rule would be similar to the cargo and passenger vessel benefits for nautical school and research vessels.

The total discounted cost for this interim rule is estimated to be \$11,259,277. The benefits from this interim rule for passenger vessels, cargo vessels, tank vessels, OSVs, and MODUs over the next 5 years range from 1.34 lives to 7.92 lives saved. The overall benefit for the five vessel categories affected for the first 5 years of this interim rule implementation is estimated to be between \$3.6 million and \$21.4 million. The present value of the estimated range is between \$2.2 million and \$13 million. Based on the willingness of society to pay \$2.7 million for the value of a fatality averted, as determined by the Department of Transportation (DOT), if this interim rule causes a reduction in the number of fatalities by 4.2 people in 5 years, the benefits will exceed the cost. The number of persons at risk in a major marine casualty would range from about 25 to 2,000 or more. Since this interim rule addresses shortcomings in lifesaving systems identified in past major marine casualties, the Coast Guard is confident that more than four lives would be saved by the requirements in this rule in any single major casualty involving a vessel equipped to this rule. Furthermore, the benefits of this interim rule could be realized at any time throughout a vessel's economic life, which may extend for 25 years or more, not just during the 5-year analysis period. As discussed previously, statistical models are not meaningful in predicting the occurrence of such low probability/high consequence accidents. Since some of the less tangible benefits realized through unification of the U.S.

regulations with international regulations are not taken into account in this analysis, the Coast Guard is confident that the total benefits exceed total costs, and has determined that this interim rule is cost effective.

#### Small Entities

Under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*), the Coast Guard must consider whether this interim rule will have a significant economic impact on small entities. "Small entities" include independently owned and operated small businesses that are not dominant in their field and that otherwise qualify as "small business concerns" under Section 3 of the Small Business act (15 U.S.C. 632). "Small entities" also include not-for-profit organizations and small governmental jurisdictions.

This interim rule considered small business impact for vessels privately held by independent companies with less than 500 employees. It may affect certain OSVs operating primarily in the Gulf of Mexico. An estimated one-half of the OSV population is owned by 35 vessel owners, each having 9 or fewer OSVs. Information provided by the International Association of Drilling Contractors and the Passenger Vessel Association, show that there is one MODU and about 10 percent of passenger vessels regulated under subchapter H that should be given consideration under the Regulatory Flexibility Act.

Sufficient flexibility and alternatives are built into the rule to allow small entities to comply with requirements at a modest cost. The greatest cost item to OSVs requires the purchase of satellite EPIRBs. Flexibility has been provided by allowing vessels which currently have class A EPIRBs or two class C EPIRBs, installed to retain these until February 1999, after which these vessels must meet the new requirement of the interim rule. Other flexibilities offered include a 5-year phase-in period to certain passenger vessels to comply with survival craft requirements. These passenger vessels are provided with alternative options for meeting survival craft requirements.

Because of these accommodations, the Coast Guard certifies that this interim rule will not have a significant economic impact on a substantial number of small entities. If, however, you think that your business or organization qualifies as a small entity and that this interim rule will have a significant economic impact on your business or organization, please submit a comment (see ADDRESSES) explaining why you think it qualifies and in what

way and to what degree this interim rule will economically affect it.

#### Collection of Information

Under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*), the Office of Management and Budget (OMB) reviews each rule that contains a collection-of-information requirement to determine whether the practical value of the information is worth the burden imposed by its collection. Collection-of-information requirements include reporting, recordkeeping, notification, and other similar requirements.

This interim rule contains collection-of-information requirements. The Coast Guard has submitted the requirements to the Office of Management and Budget (OMB) for review under section 3504(h) of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*), and OMB has approved them. Persons submitting comments on the requirements should submit their comments both to OMB and to the Coast Guard where indicated under **ADDRESSES**. The section numbers of those provisions and the corresponding OMB approval numbers are as follows:

- a. § 31.36-1—2115-0071
- b. § 35.07-10—2115-0071
- c. § 35.10-1—2115-0071
- d. § 35.10-5—2115-0576, 2115-0577
- e. § 35.40-40—2115-0577
- f. § 70.28-1—2115-0071
- g. § 78.13-1—2115-0576, 2115-0577
- h. § 78.17-50—2115-0071
- i. § 78.37-5—2115-0071
- j. § 78.47-45—2115-0577
- k. § 90.27-1—2115-0071
- l. § 97.13-1—2115-0576, 2115-0577
- m. § 97.15-35—2115-0071
- n. § 97.35-5—2115-0071
- o. § 97.37-42—2115-0577
- p. § 107.305—2115-0554
- q. § 108.105—2115-0554
- r. § 108.645—2115-0577
- s. § 108.646—2115-0577
- t. § 108.647—2115-0577
- u. § 108.649—2115-0577
- v. § 108.650—2115-0577
- w. § 108.655—2115-0577
- x. § 108.901—2115-0557
- y. § 109.213—2115-0071
- z. § 109.301—2115-0071
- aa. § 109.323—2115-0576, 2115-0557
- ab. § 109.425—2115-0007
- ac. § 109.433—2115-0071
- ad. § 133.40—2115-0554
- ae. § 133.70—2115-0577
- af. § 133.80—2115-0577
- ag. § 133.90—2115-0577
- ah. § 167.55-5—2115-0577
- ai. § 167.65-1—2115-0071
- aj. § 188.27-1—2115-0071
- ak. § 195.06-1—2115-0071
- al. § 196.13-1—2115-0576, 2115-0577
- am. § 196.15-35—2115-0071
- an. § 196.35-5—2115-0071
- ao. § 196.37-37—2115-0577
- ap. § 199.10—2115-0007
- aq. § 199.40—2115-0554

- ar. § 199.60—2115-0577
- as. § 199.70—2115-0577
- at. § 199.80—2115-0577
- au. § 199.90—2115-0577
- av. § 199.100—2115-0576, 2115-0577
- aw. § 199.175—2115-0577
- ax. § 199.176—2115-0577
- ay. § 199.178—2115-0577
- az. § 199.180—2115-0071, 2115-0577
- ba. § 199.190—2115-0071
- bb. § 199.217—2115-0577
- bc. § 199.640—2115-0577

#### Federalism

Section 202 of the Unfunded Mandates Reform Act of 1995 requires that the Agency prepare a budgetary impact statement before promulgating a rule that includes a Federal mandate that may result in expenditures by state, local, and tribal governments, in the aggregate, or by the private sector of \$100 million or more in any 1 year. Because this interim rule is estimated to result in the expenditure by state, local, and tribal governments of less than \$100 million per year, a budgetary impact statement has not been prepared. Nevertheless, much of the information required in a budgetary impact statement can be found in the Final Regulatory Assessment for this rule.

Several state and local governments operate about 75 passenger ferries and other vessels regulated under subchapter H. Total implementation costs to the passenger vessel industry affected by this interim rule are estimated at \$6.7 million and the total recurring annual costs from 1998 through 2001 is estimated to be \$3 million. State and local government passenger ferries and other vessels account for an estimated 34 percent or \$3.3 million of the total compliance costs for passenger vessels. The implementation costs to state and local government vessels accounts for \$1.9 million and the total annual recurring cost would account for \$1.4 million.

Because of the minimal estimated cost to state and local governments, the Coast Guard finds that preparation of a Federalism Assessment is unwarranted.

#### Environment

The Coast Guard considered the environmental impact of this interim rule and concluded that under paragraph 2.B.2 of Commandant Instruction M16475.1B, this interim rule is categorically excluded from further environmental documentation. This interim rule is made to enhance the safety and survivability of personnel at sea, as well as improving the effectiveness of search and rescue. It is expected to have no environmental impact. A Categorical Exclusion Determination is available in the docket

for inspection or copying where indicated under **ADDRESSES**.

#### 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 32

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

##### 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 77

Marine safety, Navigation (water), 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 96

Cargo vessels, Fire protection, 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, Incorporation by reference, 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 125

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

46 CFR Part 133

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

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 195

Marine safety, Navigation (water), Oceanographic research vessels.

46 CFR Part 196

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

46 CFR Part 199

Cargo vessels, Incorporation by reference, Marine safety, Oil and gas exploration, Passenger vessels,

Reporting and recordkeeping requirements, Vessels.

Dated: May 7, 1996.

James C. Card,

Rear Admiral, U.S. Coast Guard Chief, Marine Safety and Environmental Protection.

For the reasons set out in the preamble, under the authority of 46 U.S.C. 3306, the Coast Guard amends 46 CFR chapter I as follows:

SUBCHAPTER D—TANK VESSELS

PART 30—GENERAL PROVISIONS

1. The authority citation for part 30 continues to read as follows:

Authority: 46 U.S.C. 2103, 3306, 3703; 49 U.S.C. 5103, 5106; 49 CFR 1.45, 1.46; Section 30.01-2 also issued under the authority of 44 U.S.C. 3507; Section 30.01-5 also issued under the authority of Sec. 4109, Pub. L. 101-380, 104 Stat. 515.

§ 30.01-5 [Amended]

2. In § 30.01-5, paragraph (b) is removed and reserved.

3. In § 30.01-6, paragraph (d) is revised to read as follows:

§ 30.01-6 Application to vessels on an international voyage.

\* \* \* \* \*

(d) The Commandant or his authorized representative may exempt any vessel from the construction requirements of this subchapter if the vessel does not proceed more than 20 nautical miles from the nearest land in the course of its voyage.

PART 31—INSPECTION AND CERTIFICATION

4. The authority citation for part 31 continues to read as follows:

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 2103, 3306, 3703; 49 U.S.C. 5103, 5106; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 56 FR 545757, 3 CFR, 1991 Comp., p. 351; 49 CFR 1.46. Section 31.10-21a also issued under the authority of Sect. 4109, Pub. L. 101-380, 104 Stat. 515.

5. In § 31.01-1, paragraph (a) is revised to read as follows:

§ 31.01-1 Inspections required—TB/ALL.

(a) Every tank vessel subject to the regulations in this subchapter shall be inspected biennially, annually, or oftener, if necessary, by the Coast Guard to see that the hull, boilers, machinery, equipment, apparatus for storage, and appliances of the vessel comply with marine inspection laws, and the regulations in this subchapter, and when applicable, subchapters E, F, J, O, Q, S, and W of this chapter and 33 CFR parts 155 and 157.

\* \* \* \* \*

6. In § 31.05-1, paragraph (a) is revised to read as follows:

§ 31.05-1 Issuance of certificate of inspection—TB/ALL.

(a) When a tank vessel is found to comply with the regulations in this subchapter, and applicable provisions of subchapters E, F, J, O, Q, S, and W of this chapter and 33 CFR parts 155 and 157, a certificate of inspection will be issued to it, or to its owners, by the Officer in Charge, Marine Inspection.

\* \* \* \* \*

7. Subpart 31.36 is added to read as follows:

Subpart 31.36—Lifesaving Appliances and Arrangements

Sec.

31.36-1 Lifesaving appliances and arrangements—TB/ALL.

Subpart 31.36—Lifesaving Appliances and Arrangements

§ 31.36-1 Lifesaving appliances and arrangements—TB/ALL.

All lifesaving appliances and arrangements on tank vessels must be in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

PART 33—[REMOVED]

8. Part 33 is removed.

PART 35—OPERATIONS

9. The authority citation for part 35 continues to read as follows:

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 3306, 3703, 6101; 49 U.S.C. 5103, 5106; E.O. 12234, 45 FR 58801, 1980 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; 49 CFR 1.46.

10. In § 35.07-10, paragraph (b)(1) is revised, paragraphs (b)(2) and (b)(7) are removed, and paragraphs (b) (3), (4), (5), (6), (8), (9), and (10) are redesignated as paragraphs (b)(2) through (b)(8) to read as follows:

§ 35.07-10 Actions required to be logged—TB/ALL.

\* \* \* \* \*

(b) \* \* \*

(1) Onboard training, musters, and drills: held in accordance with subchapter W (Lifesaving Appliances or Arrangements) of this chapter.

\* \* \* \* \*

11. Section 35.10-1 is revised to read as follows:

§ 35.10-1 Emergency training, musters, and drills—T/ALL.

Onboard training, musters, and drills must be in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

12. Section 35.10-5 is revised to read as follows:

**§ 35.10-5 Muster lists, emergency signals, and manning—T/ALL.**

The requirements for muster lists, emergency signals, and manning must be in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**§§ 35.10-6, 35.10-7, 35.10-9, 35.10-20, 35.10-25, 35.10-30 [Removed]**

13. Sections 35.10-6, 35.10-7, 35.10-9, and 35.10-20, 35.10-25, and 35.10-30 are removed.

**§§ 35.30-50, 35.30-55 [Removed]**

14. Sections 35.30-50 and 35.30-55 are removed.

15. In subpart 35.40, the subpart heading is revised to read as follows:

**Subpart 35.40—Posting and Marking Requirements—TB/ALL**

16. Section 35.40-40 is revised to read as follows:

**§ 35.40-40 Marking and instructions for fire and emergency equipment—TB/ALL.**

Lifesaving appliances, instructions to passengers, and stowage locations for all tank vessels must be in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**SUBCHAPTER H—PASSENGER VESSELS**

**PART 70—GENERAL PROVISIONS**

17. The authority citation for part 70 continues to read as follows:

Authority: 46 U.S.C. 3306, 3703; 49 U.S.C. 5103, 5106; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.45, 1.46; Section 70.01-15 also issued under the authority of 44 U.S.C. 3507.

18. In § 70.05-10, paragraph (d) is revised to read as follows:

**§ 70.05-10 Application to vessels on an international voyage.**

\* \* \* \* \*

(d) The Commandant or his authorized representative may exempt any vessel from the construction requirements of this subchapter if the vessel does not proceed more than 20 nautical miles from the nearest land in the course of its voyage.

**§ 70.10-3 [Removed]**

19. Section 70.10-3 removed.

20. Sec. 70.10-34 is added to read as follows:

**§ 70.10-34 Passenger.**

(a) The term *passenger* means—

(1) On an international voyage, every person other than—

(i) The master and the members of the crew or other persons employed or

engaged in any capacity on board a vessel on the business of that vessel; and

(ii) A child under 1 year of age.

(2) On other than an international voyage, an individual carried on the vessel, except—

(i) The owner or an individual representative of the owner or, in the case of a vessel under charter, an individual charterer or individual representative of the charter;

(ii) The master; or

(iii) A member of the crew engaged in the business of the vessel who has not contributed consideration for carriage and who is paid for onboard services.

(b) The term *passenger for hire* means a passenger for whom consideration is contributed as a condition of carriage on the vessel, whether directly or indirectly flowing to the owner, charterer, operator, agent, or any other person having an interest in the vessel.

21. Section 70.10-35 is revised to read as follows:

**§ 70.10-35 Passenger Vessel.**

The term *passenger vessel* means—

(a) On an international voyage, a vessel of at least 100 tons gross tonnage carrying more than 12 passengers; and

(b) On other than an international voyage, a vessel of at least 100 tons gross tonnage—

(1) Carrying more than 12 passengers, including at least one passenger for hire; or

(2) That is chartered and carrying more than 12 passengers.

22. Section 70.10-43 is revised 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 may exceed 600 miles. The final port of destination is the last port of call in the scheduled voyage at which the vessel commences its return voyage to the country in which the voyage began.

23. Subpart 70.28 is added to read as follows:

**Subpart 70.28—Lifesaving Appliances and Arrangements**

Sec.

70.28-1 Lifesaving appliances and arrangements.

**Subpart 70.28—Lifesaving Appliances and Arrangements**

**§ 70.28-1 Lifesaving appliances and arrangements.**

All lifesaving appliances and arrangements on passenger vessels must be in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**PART 71—INSPECTION AND CERTIFICATION**

24. The authority citation for part 71 continues to read as follows:

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 2113, 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; 49 CFR 1.46.

25. Section 71.15-1 is revised to read as follows:

**§ 71.15-1 Standards in inspection of hulls, boilers, and machinery.**

In the inspection of hulls, boilers, and machinery of vessels, the standards established by the American Bureau of Shipping, see part 70, subpart 70.35 of this chapter respecting material and inspection of hulls, boilers, and machinery, and the certificate of classification referring thereto, except where otherwise provided for by the rules and regulations in this subchapter, subchapter E (Load Lines), subchapter F (Marine Engineering), subchapter J (Electrical Engineering), and subchapter W (Lifesaving Appliances and Arrangements) of this chapter, shall be accepted as standard by the inspectors.

26. In § 71.20-20, paragraph (a)(1) is revised, paragraph (a) is redesignated as introductory text, and paragraphs (a) (1), (2), (3), (4), (5), and (6) are redesignated as paragraphs (a) through (f) to read as follows:

**§ 71.20-20 Specific tests and inspections.**

\* \* \* \* \*

(a) For inspection procedures of lifesaving appliances and arrangements, see subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

\* \* \* \* \*

27. Section 71.25-15 is revised to read as follows:

**§ 71.25-15 Lifesaving equipment.**

For inspection procedures of lifesaving appliances and arrangements, see subchapter W (Lifesaving



Appliances and Arrangements) of this chapter.

**PART 75—[REMOVED]**

28. Part 75 is removed.

**PART 77—VESSEL CONTROL AND MISCELLANEOUS SYSTEMS AND EQUIPMENT**

29. The authority citation for part 77 continues to read as follows:

Authority: 46 U.S.C. 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

30. Subpart 77.06 is added to read as follows:

**Subpart 77.06—Lifesaving Appliances and Arrangements**

Sec.  
77.06-1 Installation.

**Subpart 77.06—Lifesaving Appliances and Arrangements**

**§ 77.06-1 Installation.**

The installation of all lifesaving appliances and arrangements must be in accordance with the requirements of subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**PART 78—OPERATIONS**

31. The authority citation for part 78 continues to read as follows:

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 2103, 3306, 6101; 49 U.S.C. 5103, 5106; E.O. 12234, 45 FR 58801, 3 CFR, 1981 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; 49 CFR 1.46.

32. Section 78.13-1 is revised to read as follows:

**§ 78.13-1 Muster lists, emergency signals, and manning.**

The requirements for muster lists, emergency signals, and manning must be in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**§§ 78.13-5, 78.13-10, 78.13-15, 78.13-20 [Removed]**

33. Sections 78.13-5, 78.13-10, 78.13-15 and 78.13-20 are removed.

**Subpart 78.14—[Removed]**

34. Subpart 78.14 is removed.

**§ 78.17-40 [Removed]**

35. Section 78.17-40 is removed.

36. Section 78.17-50 is revised to read as follows:

**§ 78.17-50 Emergency training, musters, and drills.**

Onboard training, musters, and drills must be in accordance with subchapter

W (Lifesaving Appliances and Arrangements) of this chapter.

**§§ 78.17-52, 78.17-55, 78.17-60, 78.17-70, 78.17-85, 78.17-90 [Removed]**

37. Sections 78.17-52, 78.17-55, 78.17-60, 78.17-70, 78.17-85, and 78.17-90 are removed.

38. In § 78.37-5 paragraphs (a)(10) and (a)(12) are removed, paragraph (a) is redesignated as introductory text, and paragraphs (a)(1), (2), (3), (4), (5), (6), (7), (8), (9), (11), (13), (14), and (15) are redesignated as paragraphs (a) through (m) and newly redesignated paragraph (a) is revised to read as follows:

**§ 78.37-5 Actions required to be logged.**

\* \* \* \* \*

(a) Onboard training, musters, and drills: held in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

\* \* \* \* \*

**§§ 78.47-43, 78.47-45 [Removed]**

39. Sections 78.47-43 and 78.47-45 are removed.

40. A new § 78.47-45 is added to read as follows:

**§ 78.47-45 Markings for lifesaving appliances, instructions to passengers, and stowage locations.**

Lifesaving appliances, instructions to passengers, and stowage locations must be marked in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**§§ 78.47-47, 78.47-50, 78.47-51, 78.47-60, 78.47-63, 78.47-65, 78.47-72 [Removed]**

41. Sections 78.47-47, 78.47-50, 78.47-51, 78.47-60, 78.47-63, 78.47-65, and 78.47-72 are removed.

**Subpart 78.49—[Removed]**

42. Subpart 78.49 is removed.

**Subpart 78.87—[Removed]**

43. Subpart 78.87 is removed.

**SUBCHAPTER I—CARGO AND MISCELLANEOUS VESSELS**

**PART 90—GENERAL PROVISIONS**

44. The authority citation for part 90 continues to read as follows:

Authority: 46 U.S.C. 3306, 3703, 49 U.S.C. 5103, 5106; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

45. In § 90.05-10, paragraph (d) is revised to read as follows:

**§ 90.05-10 Application to vessels on an international voyage.**

\* \* \* \* \*

(d) The Commandant or his authorized representative may exempt

any vessel from the construction requirements of this subchapter if the vessel does not proceed more than 20 nautical miles from the nearest land in the course of its voyage.

**§ 90.10-3 [Removed]**

46. Section 90.10-3 is removed.

47. Section 90.10-29 is revised to read as follows:

**§ 90.10-29 Passenger.**

(a) The term *passenger* means—

(1) On an international voyage, every person other than—

(i) The master and the members of the crew or other persons employed or engaged in any capacity on board a vessel on the business of that vessel; and

(ii) A child under 1 year of age.

(2) On other than an international voyage, an individual carried on the vessel, except—

(i) The owner or an individual representative of the owner or, in the case of a vessel under charter, an individual charterer or individual representative of the charterer;

(ii) The master; or

(iii) A member of the crew engaged in the business of the vessel who has not contributed consideration for carriage and who is paid for onboard services.

(b) The term *passenger for hire* means a passenger for whom consideration is contributed as a condition of carriage on the vessel, whether directly or indirectly flowing to the owner, charterer, operator, agent, or any other person having an interest in the vessel.

48. Subpart 90.27 is added to read as follows:

**Subpart 90.27—Lifesaving Appliances and Arrangements**

Sec.  
90.27-1 Lifesaving appliances and arrangements.

**Subpart 90.27—Lifesaving Appliances and Arrangements**

**§ 90.27-1 Lifesaving appliances and arrangements.**

All lifesaving appliances and arrangements must be in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**PART 91—INSPECTION AND CERTIFICATION**

49. The authority citation for part 91 continues to read as follows:

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; 49 CFR 1.46.

50. Section 91.15-1 is revised to read as follows:

**§ 91.15-1 Standards in inspection of hulls, boilers, and machinery.**

In the inspection of hulls, boilers, and machinery of vessels, the standards established by the American Bureau of Shipping, see part 90, subpart 90.35 of this chapter, respecting material and inspection of hulls, boilers, and machinery, and the certificate of classification referring thereto, except where otherwise provided for by the rules and regulations in this subchapter, subchapter E (Load Lines), subchapter F (Marine Engineering), subchapter J (Electrical Engineering), and subchapter W (Lifesaving Appliances and Arrangements) of this chapter, shall be accepted as standard by the inspectors.

51. In § 91.20-20, paragraph (a) is redesignated as introductory text, and paragraphs (a) (1), (2), (3), (4), and (5) are redesignated as paragraphs (a) through (e) and newly redesignated paragraph (a) is revised to read as follows:

**§ 91.20-20 Specific tests and inspections.**  
\* \* \* \* \*

(a) For inspection procedures of lifesaving appliances and arrangements, see subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

\* \* \* \* \*

52. Section 91.25-15 is revised to read as follows:

**§ 91.25-15 Lifesaving equipment.**

For inspection procedures of Lifesaving appliances and arrangements, see subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**PART 94—[REMOVED]**

53. Part 94 is removed.

**PART 96—VESSEL CONTROL AND MISCELLANEOUS SYSTEMS AND EQUIPMENT**

54. The authority citation for part 96 continues to read as follows:

Authority: 46 U.S.C. 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1981 Comp., p. 277; 49 CFR 1.46.

55. Subpart 96.06 is added to read as follows:

**Subpart 96.06—Lifesaving Appliances and Arrangements**

Sec.  
96.06-1 Installation.

**Subpart 96.06—Lifesaving Appliances and Arrangements**

**§ 96.06-1 Installation.**

The installation of all lifesaving appliances and arrangements must be in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**PART 97—OPERATIONS**

56. The authority citation for part 97 is revised to read as follows:

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 2103, 3306, 6101; 49 U.S.C. 5103, 5106; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; 49 CFR 1.46.

57. Section 97.13-1 is revised to read as follows:

**§ 97.13-1 Muster lists, emergency signals, and manning.**

The requirements for muster lists, emergency signals, and manning must be in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**§§ 97.13-5, 97.13-10, 97.13-15, 97.13-20 [Removed]**

58. Sections 97.13-5, 97.13-10, 97.13-15 and 97.13-20 are removed.

**Subpart 97.14—[Removed]**

59. Subpart 97.14 is removed.

**§ 97.15-25 [Removed]**

60. Section 97.15-25 is removed.

61. Section 97.15-35 is revised to read as follows:

**§ 97.15-35 Emergency training, musters, and drills.**

Onboard training, musters, and drills must be in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**§§ 97.15-37, 97.15-40, 97.15-45, 97.15-50, 97.15-65, 97.15-70 [Removed]**

62. Sections 97.15-37, 97.15-40, 97.15-45, 97.15-50, 97.15-65, and 97.15-70 are removed.

63. In § 97.35-5, paragraphs (a)(7) and (a)(9) are removed, paragraph (a) is redesignated as introductory text, and paragraphs (a) (1), (2), (3), (4), (5), (6), (8), (10), (11), and (12) are redesignated as paragraphs (a) through (j) and newly redesignated paragraph (a) is revised to read as follows:

**§ 97.35-5 Actions required to be logged.**

\* \* \* \* \*

(a) Onboard training, musters, and drills: held in accordance with subchapter W (Lifesaving appliances and Arrangements) of this chapter.

\* \* \* \* \*

**§§ 97.37-37, 97.37-40 [Removed]**

64. Sections 97.37-37 and 97.37-40 are removed.

65. Section 97.37-42 is added to read as follows:

**§ 97.37-42 Markings for lifesaving appliances, instructions to passengers, and stowage locations.**

Lifesaving appliances, instructions to passengers, and stowage locations must be marked in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**§§ 97.37-43, 97.37-55 [Removed]**

66. Sections 97.37-43 and 97.37-55 are removed.

**Subparts 97.39, 97.85—[Removed]**

67. Subparts 97.39 and 97.85 are removed.

**SUBCHAPTER I-A—MOBILE OFFSHORE DRILLING UNITS**

**PART 107—INSPECTION AND CERTIFICATION**

68. The authority citation for part 107 continues to read as follows:

Authority: 43 U.S.C. 1333; 46 U.S.C. 3306, 5115; 49 CFR 1.45, 1.46; § 107.05 also issued under the authority of 44 U.S.C. 3507.

69. In § 107.111, add definitions, in alphabetical order, to read as follows:

**§ 107.111 Definitions.**

\* \* \* \* \*

*Accommodation* means a cabin or other covered or enclosed place intended to carry persons.

\* \* \* \* \*

*Approval series* means the first six digits of a number assigned by the Coast Guard to approved equipment. Where approval is based on a subpart of subchapter Q of this chapter, the approval series corresponds to the number of the subpart. A listing of approved equipment, including all of the approval series, is published periodically by the Coast Guard in Equipment Lists (COMDTINST M16714.3 series), available from the Superintendent of Documents.

\* \* \* \* \*

*Embarkation ladder* means the ladder provided at survival craft embarkation stations to permit safe access to survival craft after launching.

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

*Float-free launching* means the method of launching a survival craft or lifesaving appliance whereby the craft or appliance is automatically released from a sinking unit and is ready for use.

*Free-fall launching* means the method of launching a survival craft whereby

the craft, with its full complement of persons and equipment on board, is released and allowed to fall into the sea without any restraining apparatus.

\* \* \* \* \*

*Immersion suit* means protective suit that reduces loss of body heat of a person wearing it in cold water.

\* \* \* \* \*

*Inflatable appliance* means an appliance that depends upon nonrigid, gas-filled chambers for buoyancy and that is normally kept uninflated until ready for use.

*Inflated appliance* means an appliance that depends upon nonrigid, gas-filled chambers for buoyancy and that is kept inflated and ready for use at all times.

\* \* \* \* \*

*Launching appliance or launching arrangement* means the method or devices for 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.

*Lifejacket* means a flotation device approved as a life preserver or lifejacket.

*Marine evacuation system* means an appliance designed to rapidly transfer large numbers of persons from an embarkation station by means of a passage to a floating platform for subsequent embarkation into associated survival craft, or directly into associated survival craft.

\* \* \* \* \*

*Muster station* means the place where the crew and industrial personnel 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.

\* \* \* \* \*

*Rescue boat* means a boat designed to rescue persons in distress and to marshal survival craft.

*Retrieval means* the safe recovery of survivors.

*Seagoing condition* means the operating condition of the unit with the personnel, equipment, fluids, and ballast necessary for safe operation on the waters where the unit operates. For bottom-bearing mobile offshore drilling units (MODU), 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 unit on which they were carried. The term includes lifeboats and liferafts, but does not include rescue boats.

\* \* \* \* \*

70. In § 107.231, paragraphs (h), (i), and (z) are removed; and paragraphs (j) through (y), (aa), (bb), and (cc) are redesignated as paragraph (h) through (y); and paragraph (b) through (q) and newly redesignated paragraph (v) are revised to read as follows:

**§ 107.231 Inspection for certification.**

\* \* \* \* \*

(b) The survival craft and rescue boat launching appliances are in proper condition and operating properly at loads ranging from light load to full load.

(c) The lifeboats and rescue boats, including engines and release mechanisms are in proper condition and operating properly.

(d) The flotation equipment such as lifebuoys, lifejackets, immersion suits, work vests, lifefloats, buoyant apparatus, and associated equipment are in proper condition.

(e) Each inflatable liferaft and inflatable lifejacket has been serviced as required under this chapter;

(f) Each hydrostatic release unit, other than a disposable hydrostatic release unit, has been serviced as required under this chapter.

(g) The crew has the ability to effectively carry out abandonment and fire fighting procedures.

\* \* \* \* \*

(v) Tests and inspections of the lifesaving equipment shall be carried out during the initial inspection for certification, and whenever any new item of lifesaving equipment is installed on the unit. The tests and inspections shall determine that the installation of each item of lifesaving equipment is consistent with each condition of its approval, as listed on its Coast Guard Certificate of Approval. The tests and inspections shall also demonstrate, as applicable,—

(1) The proper condition and operation of the survival craft and rescue boat launching appliances at loads ranging from light load to 10 percent overload;

(2) The proper condition and operation of lifeboats and rescue boats, including engines and release mechanisms;

(3) The proper condition of flotation equipment such as lifebuoys, lifejackets, immersion suits, work vests, and associated equipment;

(4) The proper condition of distress signaling equipment, including EPIRB's, SART's, and pyrotechnic signaling devices;

(5) The proper condition of line-throwing appliances;

(6) The proper condition and operation of embarkation and debarkation appliances, including embarkation-debarkation ladders, and alternate means of escape;

(7) The ability of the crew to effectively carry out abandonment and firefighting procedures; and

(8) The ability to meet the egress and survival craft launching requirements of this part.

\* \* \* \* \*

**§§ 107.239, 107.243 [Removed]**

71. Section 107.239 and 107.243 are removed.

72. In § 107.305, paragraphs (bb) and (cc) are revised to read as follows:

**§ 107.305 Plans and information.**

\* \* \* \* \*

(b) 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 part 108, subpart E of this chapter.

(c) The weight of each lifeboat, rescue boat, and davit-launched liferaft when fully equipped and loaded.

\* \* \* \* \*

**PART 108—DESIGN AND EQUIPMENT**

73. The authority citation for part 108 continues to read as follows:

Authority: 43 U.S.C. 1333, 1333(d); 46 U.S.C. 3102, 3306, 5115; 49 CFR 1.46.

74. In § 108.101, paragraph (b) is revised to read as follows:

**§ 108.101 Incorporation by reference.**

\* \* \* \* \*

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

American Society for Testing and Materials (ASTM)

1916 Race Street, Philadelphia, PA 19103

ASTM D93-94, Flash Point by Pennsky-Martens Closed Cup Tester ..... 108.500

ASTM F-1014, Standard Specification for Flashlights on Vessels, 1986 .....	108.497
ASTM F-1121, International Shore Connections for Marine Fire Applications, 1987 .....	108.427

## International Maritime Organization (IMO)

4 Albert Embankment, London, SE1 7SR, England	
Resolution A.520(13), Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Life-saving Appliances and Arrangements, 17 November 1983.	108.105.
Resolution A.649(16), Code for the Construction and Equipment of Mobile Offshore Drilling Units (MODU Code), 19 October 1989 with amendments of June 1991.	108.503.
Resolution A.658(16), Use and Fitting of Retro-reflective Materials on Life-saving Appliances, 20 November 1989.	108.645; 108.649.
Resolution A.760(18), Symbols Related to Life-saving Appliances and Arrangements, 17 November 1993.	108.646; 108.647; 108.649; 108.655.

75. Section 108.103 is revised to read as follows:

**§ 108.103 Equipment not required on a unit.**

Each item of lifesaving and firefighting equipment carried on board the unit in addition to equipment of the type required under this subchapter, must—

- (a) Be approved; or
- (b) Be acceptable to the cognizant OCMI, for use on the unit.

76. In § 108.105, paragraph (a) is revised, and paragraphs (c) through (f) are added to read as follows:

**§ 108.105 Substitutions for required fittings, material, apparatus, equipment, arrangements, calculations, and tests.**

(a) Where this subchapter requires a particular fitting, material, apparatus, equipment, arrangement, calculation or test, the Commandant (G-MSE) may accept any substitution that is at least as effective as that specified. If necessary, the Commandant (G-MSE) may require engineering evaluations and tests to demonstrate the equivalence of the substitution.

\* \* \* \* \*

(c) The Commandant (G-MSE) may accept a novel lifesaving appliance or arrangement, if it provides a level of safety equivalent to the requirements of this part and the appliance or arrangement—

- (1) Is evaluated and tested in accordance with IMO Resolution A.520(13), Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Life-saving Appliances and Arrangements; or
- (2) Has successfully undergone evaluation and tests that are substantially equivalent to those recommendations.

(d) During a unit's construction and when any modification to the lifesaving arrangement is done after construction, the owner must obtain acceptance of lifesaving arrangements from the Commandant (G-MSC).

(e) The OCMI may accept substitute lifesaving appliances other than those required by this part, except for—

(1) Survival craft and rescue boats; and

(2) Survival craft and rescue boat launching and embarkation appliances.

(f) Acceptance of lifesaving appliances and arrangements will remain in effect unless—

- (1) The OCMI deems their condition to be unsatisfactory or unfit for the service intended; or
- (2) The OCMI deems the crew's ability to use and assist others in the use of the lifesaving appliances or arrangements to be inadequate.

77. Subpart E is revised to read as follows:

**Subpart E—Lifesaving Equipment**

Sec.	
108.500	General.
108.503	Relationship to international standards.
108.510	Application.
108.515	Requirements for units built before October 1, 1996.
108.520	Type of survival craft.
108.525	Survival craft number and arrangement.
108.530	Stowage of survival craft.
108.540	Survival craft muster and embarkation arrangements.
108.545	Marine evacuation system launching arrangements.
108.550	Survival craft launching and recovery arrangements: general.
108.553	Survival craft launching and recovery arrangements using falls and a winch.
108.555	Lifeboat launching and recovery arrangements.
108.557	Free-fall lifeboat launching and recovery arrangements.
108.560	Rescue boats.
108.565	Stowage of rescue boats.
108.570	Rescue boat embarkation, launching and recovery arrangements.
108.575	Survival craft and rescue boat equipment.
108.580	Personal lifesaving appliances.
108.595	Communications.
108.597	Line-throwing appliance.

**Subpart E—Lifesaving Equipment**

**§ 108.500 General.**

(a) Each unit, other than a surface type unit, must meet the requirements in this subpart.

(b) Each surface type unit must meet the lifesaving system requirements in

subchapter W of this chapter, for a tank vessel certificated to carry cargoes that have a flash less than 60 °C, as determined under ASTM D93-94.

(c) The OCMI may require a unit to carry specialized or additional lifesaving equipment other than as required by this part, if the OCMI determines the conditions of the unit's service present uniquely hazardous circumstances which are not adequately addressed by existing requirements.

**§ 108.503 Relationship to international standards.**

For the purposes of this part, any unit carrying a valid IMO MODU Safety Certificate, including a listing of lifesaving equipment as required by the 1989 IMO MODU Code, is considered to have met the requirements of this subpart if, in addition to the requirements of the 1989 IMO MODU Code, it meets the following requirements:

(a) Each new lifeboat and launching appliance may be of aluminum construction only if its stowage location is protected with a water spray system in accordance with § 108.550(d) of this chapter.

(b) Each lifejacket, immersion suit, and emergency position indicating radiobeacon (EPIRB) must be marked with the unit's name in accordance with §§ 108.649 and 108.650.

(c) Inflatable lifejackets, if carried, must be of the same or similar design as required by § 108.580(b).

(d) Containers for lifejackets, immersions suits, and anti-exposure suits must be marked as specified in § 108.649(g).

(e) Each liferaft must be arranged to permit it to drop into the water from the deck on which it is stowed as required in § 108.530(c)(3).

(f) Survival craft must be arranged to allow safe disembarkation onto the unit after a drill in accordance with § 108.540(f).

(g) The requirements for guarding of falls in §§ 108.553 (d) and (f) must be met.

(h) The winch drum requirements described in § 108.553(e) must be met

for all survival craft winches, not just multiple drum winches.

(i) The maximum lowering speed requirements from §§ 108.553 (h) and (i) must be met.

(j) An auxiliary line must be kept with each line-throwing appliance in accordance with § 108.597(c)(2).

(k) Immersion suits are required on all units, except those operating between the 32 degrees north and 32 degrees south latitude in accordance with § 108.580(c).

(l) All abandonment drills conducted on units carrying immersion suits must include immersion suits.

#### § 108.510 Application.

(a) For the purposes of this subpart—

(1) *Similar stage of construction*

means the stage at which—

(i) Construction identifiable with a specific unit begins; and

(ii) Assembly of that unit comprising at least 50 metric tons (55.1 U.S. tons) or 1 percent of the estimated mass of all structural material, whichever is less, has been achieved.

(2) *Unit constructed* means a unit, the keel of which is laid or which is at a similar stage of construction.

(b) Subject to § 108.515, each unit constructed before October 1, 1996, must meet the requirements of this subpart, except for the number, type, and arrangement of lifeboats (including survival capsules), lifeboat davits, winches, inflatable liferafts, liferaft launching equipment, and rescue boats.

(c)(1) If a District Commander determines that the overall safety of the persons on board a unit will not be significantly reduced, the District Commander may grant an exemption from compliance with a provision of this part to a specific unit for a specified geographic area within the boundaries of the Coast Guard District. This exemption may be limited to certain periods of the year.

(2) Requests for exemption under this paragraph must be in writing to the OCMI for transmission to the District Commander in the area in which the unit is in service or will be in service.

(3) If the exemption is granted by the District Commander, the OCMI will endorse the unit's Certificate of Inspection with a statement describing the exemption.

#### § 108.515 Requirements for units built before October 1, 1996.

(a) Units which were constructed prior to October 1, 1996, must—

(1) By October 1, 1997, have either—

(i) Lifeboats and liferafts that meet § 108.525; or

(ii) Totally enclosed fire-protected lifeboats of sufficient capacity to

accommodate 100 percent of the persons permitted on board, plus additional totally enclosed lifeboats or davit-launched liferafts of sufficient capacity to accommodate 100 percent of the persons permitted on board the unit. The following exceptions apply:

(A) 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.

(B) A submersible unit constructed before January 3, 1979, may continue to use the lifesaving arrangements described on the unit's Certificate of Inspection in effect on October 1, 1996.

(2) By October 1, 1997, fit retro-reflective material on all floating appliances, lifejackets, and immersion suits.

(3) Except for the requirements in paragraphs (a)(1) and (a)(2) of this section, units may retain the arrangement of lifesaving appliances previously required and approved for the unit, as long as the arrangement or appliance is maintained in good condition to the satisfaction of the OCMI.

(b) When any lifesaving appliance or arrangement on a unit subject to this part is replaced, or when the unit 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 the requirements of this part, unless the OCMI determines that the unit cannot accommodate the new appliance or arrangement, except that—

(1) A survival craft is not required to meet the requirements of this part if it is replaced without replacing its davit and winch; and

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

#### § 108.520 Type of survival craft.

(a) Each lifeboat must be a fire-protected lifeboat approved under approval series 160.135. A lifeboat of aluminum construction in the hull or canopy must be protected in its stowage position by a water spray system meeting the requirements of part 34, subpart 34.25 of this chapter.

(b) Each inflatable liferaft must be approved under approval series 160.151. Each rigid liferaft must be approved under approval series 160.118. Each liferaft must have a capacity of six persons or more.

#### § 108.525 Survival craft number and arrangement.

(a) Each unit must carry the following:

(1) 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) Liferafts arranged for float-free launching and having an aggregate capacity that will accommodate the total number of persons permitted on board.

(b) 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 (a)(1) of this section, the OCMI may accept the following number and arrangement of survival craft:

(1) Lifeboats with an aggregate capacity to accommodate the total number of persons permitted on board.

(2) Liferafts served by launching appliances or marine evacuation systems of an aggregate capacity to accommodate the total number of persons permitted on board. These liferafts may be the float-free liferafts under paragraph (a)(2) of this section, or liferafts in addition to the float-free liferafts.

#### § 108.530 Stowage of survival craft.

(a) *General.* Each survival craft required to be served by a launching appliance or marine evacuation system must be stowed as follows:

(1) Each survival craft must be stowed as close to the accommodation and service spaces as possible.

(2) Each survival craft must be stowed 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.

(3) Each survival craft must be stowed as near the water surface as is safe and practicable.

(4) Each survival craft must be stowed where the survival craft, in the embarkation position, is above the waterline with the unit—

(i) In the fully loaded condition; and

(ii) Listed up to 20 degrees either way, or to the angle where the unit's weatherdeck edge becomes submerged, whichever is less.

(5) Each survival craft must be sufficiently ready for use so that two

crew members can complete preparations for embarkation and launching in less than 5 minutes.

(6) Each survival craft must be fully equipped as required under this subpart.

(7) Each survival craft must be in a secure and sheltered position and protected from damage by fire and explosion, as far as practicable.

(8) Each survival craft must not require lifting from its stowed position in order to launch, except that a davit-launched liferaft may be lifted by a manually powered winch from its stowed position to its embarkation position.

(b) *Additional lifeboat-specific stowage requirements.* In addition to meeting the requirements of paragraph (a) of this section, each lifeboat must be stowed as follows:

(1) The unit must be arranged so each lifeboat, in its stowed position, is protected from damage by heavy seas.

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

(3) Each lifeboat must be provided a means for recharging the lifeboat batteries from the unit's power supply at a supply voltage not exceeding 50 volts.

(c) *Additional liferaft-specific stowage requirements.* In addition to meeting the requirements of paragraph (a) of this section, each liferaft must be stowed as follows:

(1) Each liferaft must be stowed to permit manual release from its securing arrangements.

(2) Each liferaft 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. Each liferaft without an indicated maximum stowage height must be stowed not more than 18 meters (59 feet) above the waterline in the unit's lightest seagoing condition.

(3) Each liferaft must be arranged to permit it to drop into the water from the deck on which it is stowed. A liferaft stowage arrangement meets this requirement if it—

- (i) Is outboard of the rail or bulwark;
- (ii) Is on stanchions or on a platform adjacent to the rail or bulwark; or
- (iii) Has a gate or other suitable opening to allow the liferaft to be pushed directly overboard.

(4) 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—

- (i) Within the list limits specified in paragraph (a)(4)(ii) of this section;
- (ii) By unit motion; or
- (iii) By power failure.

(5) 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 water during and after inflation and launching of the contained liferaft.

(6) Each liferaft must have a painter system providing a connection between the unit and the liferaft.

(7) Each liferaft or group of liferafts must be arranged for float-free launching. The arrangement must ensure that the liferaft or liferafts when released and inflated, are not dragged under by the sinking unit. A hydrostatic release unit used in a float-free arrangement must be approved under approval series 160.162.

#### **§ 108.540 Survival craft muster and embarkation arrangements.**

(a) Each muster station must have sufficient space to accommodate all persons assigned to muster at that station. One or more muster stations must be close to each embarkation station.

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

(c) Each lifeboat must be arranged to be boarded and launched directly from the stowed position.

(d) Each lifeboat must be arranged to be boarded by its full complement of persons within 3 minutes from the time the instruction to board is given.

(e) Each davit-launched and free-fall survival craft 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.

(f) Means must be provided for bringing each davit-launched survival craft against the side of the unit 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 in the proper position for boarding; and

(3) Can be rapidly released for launching by one person from within the loaded liferaft.

(h) Each launching station or each two adjacent launching stations must have an embarkation ladder as follows:

(1) Each embarkation ladder must be approved under approval series 160.117 or be a rope ladder approved under approval series 160.017, and must be installed in a way that—

(i) Each embarkation ladder must extend in a single length, from the deck to the waterline in the lightest seagoing condition with the unit listed not less than up to 15 degrees either way; or

(ii) Each embarkation ladder may be replaced by a device approved to provide safe and rapid access to survival craft in the water, if the OCMI permits the device, provided that there is at least one embarkation ladder on each side of the unit.

(2) An embarkation ladder is not required if—

(i) The distance from the embarkation deck to the unit's lightest operating waterline is less than 3 meters (10 feet); and

(ii) The unit is not in international service.

(3) If the embarkation ladders can not be supported against a vertical flat surface, the unit must instead be provided with at least two widely separated fixed metal ladders or stairways extending from the deck to the surface of the water and meet the following:

(i) Each inclined fixed ladder must meet the requirements under § 108.159.

(ii) Each vertical fixed ladder must meet the requirements under § 108.160 for fixed ladders, except that the vertical bars in cages must be open at least 500 millimeters (20 inches) on one side throughout the length of the ladder.

(iii) If a fixed ladder can not be installed, the OCMI may approve an alternate means of escape with sufficient capacity to permit all persons permitted on board to safely descend to the waterline.

(4) Alternate means of escape under paragraphs (h)(1)(ii) and (h)(3) of this section, such as portable slides, safety booms, moveable ladders, elevators, and controlled descent devices must be approved. 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.

#### **§ 108.545 Marine evacuation system launching arrangements.**

(a) *Arrangements.* Each marine evacuation system must have the following arrangements:

(1) Each marine evacuation system must be capable of being deployed by one person.

(2) Each marine evacuation system must enable the total number of persons

for which it is designed, to be transferred from the unit into the inflated liferafts within a period of 10 minutes from the time the signal to abandon the unit is given.

(3) Each marine evacuation system must be arranged so that liferafts may be securely attached to the platform and released from the platform by a person either in the liferaft or on the platform.

(4) Each marine evacuation system must be capable of being deployed from the unit under unfavorable conditions of list of up to 20 degrees.

(5) If the marine evacuation system has an inclined slide, the angle of the slide from horizontal must be within a range of 30 to 35 degrees when the unit is upright and in the lightest seagoing condition.

(6) Each marine evacuation system platform must be capable of being restrained by a bousing line or other positioning system that is designed to deploy automatically, and if necessary, be capable of being adjusted to the position required for evacuation.

(b) *Stowage.* Each marine evacuation system must be stowed as follows:

(1) There must not be any openings between the marine evacuation system's embarkation station and the unit's side at the unit's waterline in the lightest seagoing condition.

(2) The marine evacuation system must be protected from any projections of the unit's structure or equipment.

(3) The marine evacuation system's passage and platform, when deployed, its stowage container, and its operational arrangement must not interfere with the operation of any other lifesaving appliance at any other launching station.

(4) Where appropriate, the marine evacuation system's stowage area must be protected from damage by heavy seas.

(c) *Stowage of associated liferafts.* Inflatable liferafts used in conjunction with the marine evacuation system must be stowed as follows:

(1) Each inflatable liferaft used in conjunction with the marine evacuation system must be close to the system container, but capable of dropping clear of the deployed chute and boarding platform.

(2) Each inflatable liferaft used in conjunction with the marine evacuation system must be capable of individual release from its stowage rack.

(3) Each inflatable liferaft used in conjunction with the marine evacuation system must be stowed in accordance with § 108.530.

(4) Each inflatable liferaft used in conjunction with the marine evacuation system must be provided with pre-

connected or easily connected retrieving lines to the platform.

**§ 108.550 Survival craft launching and recovery arrangements: general.**

(a) Each launching appliance for a lifeboat must be a davit approved under approval series 160.132, with a winch approved under approval series 160.115. Each launching appliance for a davit-launched liferaft must be approved under approval series 160.163, with an automatic disengaging apparatus approved under approval series 160.170.

(b) 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 minutes from the time the signal to abandon the unit is given.

(c) 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 clear the upper hull, the columns, and the pontoons of a column stabilized unit, with the unit in an intact condition.

(1) The survival craft must be arranged to be launched down the straight side of the unit or be 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, sufficient survival craft must be available for use by the total number of personnel remaining on board.

(d) Each lifeboat of aluminum construction in the hull or canopy, and each aluminum launching appliance must be protected in its stowage position by a water spray system meeting the requirements of part 34, subpart 34.25 of this chapter.

(e) With the exception of the secondary means of launching for free-fall lifeboats, 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—

(1) A list of up to 20 degrees on the high side; and

(2) A list of up to 20 degrees or the degree of list where the survival craft becomes waterborne, whichever, is the greater, on the low side.

(f) 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 § 108.550(e), survival craft launching appliances and marine evacuation systems 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 be such that the lifeboat is either headed away from the unit upon launching, or can be turned to a heading away from the unit immediately upon launching.

(g) A launching appliance must not depend on any means other than gravity or stored mechanical power independent of the unit's power supplies to launch the survival craft it serves, in the fully loaded and equipped conditions, and also in the light condition.

(h) Each launching appliance's structural attachment to the vessel must be designed, based on the ultimate strength of the construction material, to 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.

(i) Each launching appliance must be arranged so that—

(1) All parts requiring regular maintenance by the crew are readily accessible and easily maintained;

(2) The launching appliance remains effective under conditions of icing;

(3) The same type of release mechanism is used for each similar survival craft carried on board the unit; and

(4) The preparation and handling of survival craft at any one launching station does not interfere with the prompt preparation and handling of any other survival craft at any other station.

(j) Each launching mechanism must be arranged so it may be actuated by one person from a position on the unit'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.

(k) Means must be provided outside the machinery space to prevent any discharge of water onto survival craft during abandonment.

**§ 108.553 Survival craft launching and recovery arrangements using falls and a winch.**

Survival craft launching and recovery arrangements, in addition to meeting the requirements in § 108.550, must meet the following requirements:

(a) Each fall wire must be of rotation-resistant and corrosion-resistant steel wire rope.

(b) 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.

(c) Each fall must be long enough for the survival craft to reach the water with the unit in its lightest seagoing condition, under unfavorable conditions of trim and with the unit listed not less than 20 degrees either way.

(d) Each unguarded fall must not pass near any operating position of the winch, such as hand cranks, payout wheels, and brake levers.

(e) Each winch drum must be arranged so the fall wire winds onto the drum in a level wrap, and a multiple drum winch must be arranged so that the falls wind off at the same rate when lowering, and onto the drums at the same rate when hoisting.

(f) Each fall, where exposed to damage or fouling, must have guards or equivalent protection. Each fall that leads along a deck must be covered with a guard that is not more than 300 millimeters (1 foot) above the deck.

(g) The lowering speed for a fully loaded survival craft must be not less than that obtained from the following formula:

(1)  $S=0.4+(0.02 H)$ , where S is the speed of lowering in meters per second, and H is the height in meters from the davit head to the waterline at the lightest seagoing condition, with H not greater than 30, regardless of the lowering height.

(2)  $S=79+(1.2 H)$ , where S is the speed of lowering in feet per minute, and H is the height in feet, with H not greater than 99.

(h) The lowering speed for a survival craft loaded with all of its equipment must be not less than 70 percent of the speed required under paragraph (g) of this section.

(i) The lowering speed for a fully loaded survival craft must be not more than 1.3 meters per second (256 feet per minute).

(j) If a survival craft is recovered by electric power, the electrical

installation, including the electric power-operated boat winch, must meet the requirements in subchapter J of this chapter. If a survival craft is recovered by any means of power, including a portable power source, safety devices must be provided which automatically cut off the power before the davit arms or falls reach the stops in order to avoid overstressing the falls or davits, unless the motor is designed to prevent such overstressing.

(k) Each launching appliance must be fitted with brakes that meet the following requirements:

(1) The brakes must be capable of stopping the descent of the survival craft or rescue boat and holding it securely when loaded with its full complement of persons and equipment.

(2) The brake pads must, where necessary, be protected from water and oil.

(3) Manual brakes must be arranged so that the brake is always applied unless the operator, or a mechanism activated by the operator, holds the brake control in the off position.

**§ 108.555 Lifeboat launching and recovery arrangements.**

Liftboat launching and recovery arrangements, in addition to meeting the requirements in §§ 108.550 and 108.553, must meet the following requirements:

(a) Each lifeboat must be capable of being launched with the unit making headway of 5 knots in calm water, or with the unit anchored or bearing on the bottom in a current of up to 5 knots. A painter may be used to meet this requirement.

(b) Each lifeboat must be provided with a launching appliance. The launching appliance must be capable of launching and recovering the lifeboat with its crew.

(c) Each launching appliance arrangement must allow the operator on the unit to observe the lifeboat at all times during recovery.

(d) Each launching appliance arrangement must be designed to ensure persons can safely disembark from the survival craft prior its stowage.

**§ 108.557 Free-fall lifeboat launching and recovery arrangements.**

(a) The launching appliance for a free-fall lifeboat must be designed and installed so that the launching appliance and the lifeboat it serves operate as a system to protect the occupants from harmful acceleration forces and to effectively clear the unit.

(b) The launching appliance must be designed and arranged so that in its ready to launch position, the distance from the lowest point on the lifeboat it

serves to the water surface with the unit in its lightest seagoing condition does not exceed the lifeboat's certificated free-fall height.

(c) The launching appliance must be arranged so as to preclude accidental release of the lifeboat in its unattended stowed position. If the means provided to secure the lifeboat cannot be released from inside the lifeboat, the means to secure the lifeboat must be arranged as to preclude boarding the lifeboat without first releasing it.

(d) Each free-fall launching arrangement must be provided with a secondary means to launch the lifeboat by falls. Such means must comply with the requirements of §§ 108.550, 108.553, and 108.555. Notwithstanding § 108.550(e), the launching appliance must be capable of launching the lifeboat against unfavorable conditions of list of 5 degrees in any direction and it need not comply with the speed requirements of §§ 108.553 (g), (h), and (i).

If the secondary launching appliance is not dependent on gravity, stored mechanical power or other manual means, the launching arrangement must be connected both to the unit's main and emergency power supplies.

**§ 108.560 Rescue boats.**

Each unit must carry at least one rescue boat. Each rescue boat must be approved under approval series 160.156. A lifeboat is accepted as a rescue boat if it also meets the requirements for a rescue boat.

**§ 108.565 Stowage of rescue boats.**

(a) Rescue boats must be stowed as follows:

(1) Each rescue boat must be ready for launching in not more than 5 minutes.

(2) Each rescue boat must be in a position suitable for launching and recovery.

(3) Each rescue boat must be 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.

(4) Each rescue boat that is also a lifeboat, must be in compliance with § 108.530.

(b) Each rescue boat must be provided a means for recharging the rescue boat batteries from the unit's power supply at a supply voltage not exceeding 50 volts.

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

**§ 108.570 Rescue boat embarkation, launching and recovery arrangements.**

(a) Each rescue boat must be capable of being launched with the unit making headway of 5 knots in calm water, or



with the unit anchored or bearing on the bottom in a current of up to 5 knots. A painter may be used to meet this requirement.

(b) Each rescue boat embarkation and launching arrangement must permit the rescue boat to be boarded and launched in the shortest possible time.

(c) If the rescue boat is one of the unit's survival craft, the rescue boat must also be as follows:

(1) The rescue boat must meet the embarkation arrangement and launching station requirements of § 108.510.

(2) The rescue boat must meet the launching arrangement requirements of §§ 108.550 and 108.557, and if the launching arrangement uses falls and a winch, § 108.553.

(3) If the launching arrangement uses a single fall, the rescue boat must have an automatic disengaging apparatus approved under approval series 160.170, 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.

(e) Each rescue boat launching appliance must be fitted with a powered winch motor.

(f) 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 meters per second (59 feet per minute).

**§ 108.575 Survival craft and rescue boat equipment.**

(a) All lifeboat and rescue boat equipment must be as follows:

(1) The equipment must be secured within the boat by lashings, storage in lockers, or compartments, storage in brackets or similar mounting arrangements or other suitable means.

(2) The equipment must be secured in such a manner as not to interfere with any abandonment procedures or reduce seating capacity.

(3) The equipment must be as small and of as little mass as possible.

(4) The equipment must be packed in a suitable and compact form.

(5) The equipment should be stowed so the items do not—

- (i) Reduce the seating capacity;
- (ii) Adversely affect the seaworthiness of the survival craft or rescue boat; or
- (iii) Overload the launching appliance.

(b) Each lifeboat, rigid liferaft, and rescue boat, unless otherwise stated in this paragraph, must carry the equipment specified for it in table § 108.575(b) of this section. A lifeboat that is also a rescue boat must carry the equipment in the table column marked for a lifeboat. Each item in the table has the same description as in § 199.175 of this chapter.

TABLE 108.575(b).—SURVIVAL CRAFT EQUIPMENT

Item No.	Item	International service			Other than international service		
		Lifeboat	Rigid life-raft	Rescue boat	Lifeboat	Rigid life-raft	Rescue boat
1	Bailer <sup>1</sup> .....	1	1	1	1	1	1
2	Bilge pump <sup>2</sup> .....	1	.....	.....	1	.....	.....
3	Boathook .....	2	.....	1	2	.....	1
4	Bucket <sup>3</sup> .....	2	.....	1	2	.....	1
5	Can opener .....	3	3	.....	.....	.....	.....
6	Compass .....	1	.....	1	1	.....	1
7	Dipper .....	1	.....	.....	1	.....	.....
8	Drinking cup .....	1	1	.....	.....	.....	.....
9	Fire extinguisher .....	1	.....	1	1	.....	1
10	First-aid kit .....	1	1	1	1	1	1
11	Fishing kit .....	1	1	.....	.....	.....	.....
12	Flashlight .....	1	1	1	1	1	1
13	Hatchet .....	2	.....	.....	2	.....	.....
14	Heaving line .....	2	1	2	2	1	2
15	Instruction card .....	.....	1	.....	.....	1	.....
16	Jackknife .....	1	.....	.....	1	.....	.....
17	Knife <sup>14</sup> .....	.....	1	1	.....	1	1
18	Ladder .....	1	.....	1	1	.....	1
19	Mirror, signaling .....	1	1	.....	1	1	.....
20	Oars (units) <sup>56</sup> .....	1	.....	1	1	.....	1
	Paddles .....	.....	2	.....	.....	2	.....
21	Painter .....	2	1	1	2	1	1
22	Provisions (units per person) .....	1	1	.....	.....	.....	.....
23	Pump <sup>7</sup> .....	.....	.....	1	.....	.....	.....
24	Radar reflector .....	1	1	1	.....	.....	.....
25	Rainwater collection device .....	1	.....	.....	.....	.....	.....
26	Repair kit <sup>7</sup> .....	.....	.....	1	.....	.....	1
27	Sea anchor .....	1	2	1	1	2	1
28	Searchlight .....	1	.....	1	1	.....	1
29	Seasickness kit (kits/person) .....	1	1	.....	1	1	.....
30	Signal, smoke .....	2	2	.....	2	1	.....
31	Signal, hand flare .....	6	6	.....	6	6	.....
32	Signal, parachute flare .....	4	4	.....	4	4	.....
33	Skates and fenders <sup>8</sup> .....	1	.....	.....	1	.....	.....
34	Sponge <sup>7</sup> .....	.....	2	2	.....	2	2
35	Survival instructions .....	1	1	.....	1	1	.....
36	Table of lifesaving signals .....	1	1	.....	1	1	.....
37	Thermal protective aid (percent of persons) <sup>9</sup> .....	10%	10%	10%	10%	10%	10%
38	Took kit .....	1	.....	.....	1	.....	.....

TABLE 108.575(b).—SURVIVAL CRAFT EQUIPMENT—Continued

Item No.	Item	International service			Other than international service		
		Lifeboat	Rigid life-raft	Rescue boat	Lifeboat	Rigid life-raft	Rescue boat
39	Towline <sup>10</sup> .....	1	.....	1	1	.....	1
40	Water (liters per person) .....	3	1.5	.....	3	1	.....
41	Whistle .....	1	1	1	1	1	1

## Notes:

<sup>1</sup> Each liferaft approved for 13 persons or more must carry two of these items.

<sup>2</sup> Bilge pumps are not required for boats of self-bailing design.

<sup>3</sup> Not required for inflated or rigid/inflated rescue boats.

<sup>4</sup> A hatchet counts toward this requirement in rigid rescue boats.

<sup>5</sup> Oars not required on a free-fall lifeboat; a unit of oars means the number of oars specified by the manufacturer.

<sup>6</sup> Rescue boats may substitute buoyant oars for paddles, as specified by the manufacturer.

<sup>7</sup> Not required for a rigid rescue boat.

<sup>8</sup> Required if specified by the boat manufacturer.

<sup>9</sup> Sufficient thermal protective aids are required for at least 10% of the persons the survival craft is equipped to carry, but not less than two.

<sup>10</sup> Required only if the lifeboat is also the rescue boat.

**§ 108.580 Personal lifesaving appliances.**

(a) *Lifebuoys.* Each unit must carry at least eight lifebuoys approved under approval series 160.150 as follows:

(1) *Stowage.* Lifebuoys must be stowed as follows:

(i) Each lifebuoy must be capable of being rapidly cast loose.

(ii) Each lifebuoy must not be permanently secured to the unit in anyway.

(iii) Lifebuoys must be so distributed as to be readily available on each side of the unit and, as far as practicable, on each open deck extending to the side of the unit. The lifebuoys with attached self-igniting lights must be evenly distributed on all sides of the unit.

(iv) At least two lifebuoys, each with attached self-activating smoke signals, must be stowed where they can be quickly released from the navigating bridge or main control station, or a location readily available to personnel on board. These lifebuoys should, when released, fall directly into the water without striking any part of the unit.

(2) *Attachments and fittings.*

Lifebuoys must have the following attachments and fittings:

(i) At least one lifebuoy on each side of the unit fitted with a buoyant lifeline that is—

(A) At least as long as twice the height where it is stowed above the waterline in the lightest seagoing condition, or 30 meters (100 feet), whichever is the greater;

(B) Non-kinking;

(C) Not less than 8 millimeters (<sup>5</sup>/<sub>16</sub> inch) in diameter;

(D) Of a breaking strength which is not less than 5 kiloNewtons (1,124 pounds-force); and

(E) Is, if synthetic, a dark color or certified by the manufacturer to be resistant to deterioration from ultraviolet light.

(ii) At least one-half the total number of lifebuoys on the unit must each be fitted with a self-igniting light approved under approval series 161.010. A self-igniting light must not be attached to the lifebuoys required by this section to be fitted with lifelines.

(iii) At least two lifebuoys on the unit each must be fitted with a self-activating smoke signal approved under approval series 160.157. Lifebuoys fitted with smoke signals must also be fitted with lights.

(b) *Lifejackets.* Each unit must carry lifejackets approved under approval series 160.155, 160.176, or 160.177. If the unit carries inflatable lifejackets, they must be of the same or similar design and have the same method of operation.

(1) *General.* Each unit must carry a lifejacket for each person on board and in addition, a sufficient number of lifejackets must be carried for persons at each work station and industrial work site.

(2) *Stowage.* Lifejackets must be stowed as follows:

(i) The lifejackets must be readily accessible.

(ii) The additional lifejackets required by paragraph (b)(1) of this section must be stowed in places readily accessible to the work stations and industrial work sites.

(iii) Where, due to the particular arrangements of the unit, the lifejackets under paragraph (b)(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.

(3) *Attachments and fittings.* Lifejackets must have the following attachments and fittings:

(i) Each lifejacket must have a lifejacket light approved under approval series 161.112 securely attached to the front shoulder area of the lifejacket. On

a unit not in international service, a light approved under approval series 161.012 may be used. However, chemiluminescent-type lifejacket lights are not permitted on units certificated to operate on waters where water temperature may drop below 10 °C (50 °F).

(ii) Each lifejacket must have a whistle firmly secured by a cord to the lifejacket.

(c) *Immersion suits or anti-exposure suits.* Each unit must carry immersion suits approved under approval series 160.171 or anti-exposure suits approved under approval series 160.153.

(1) *General.* Each unit, except units operating between 32 degrees north latitude and 32 degrees south latitude, must carry—

(i) Immersion suits or anti-exposure suits of suitable size for each person assigned to the rescue boat crew;

(ii) Immersion suits approved under approval series 160.171 of the appropriate size for each person on board, which count toward meeting the requirements of paragraph (c)(1)(i) of this section; and

(iii) In addition to the immersion suits required under paragraph (c)(1)(ii) 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.

(2) *Attachments and fittings.*

Immersion suits or anti-exposure suits must have the following attachments and fittings:

(i) Each immersion suit or anti-exposure suit must have a lifejacket light approved under approval series

161.112 securely attached to the front shoulder area of the immersion suit or anti-exposure suit. On a unit not in international service, a light approved under approval series 161.012 may be used. However, chemiluminescent type lifejacket lights are not permitted on units certificated to operate on waters where water temperature may drop below 10 °C (50 °F).

(ii) Each immersion suit or anti-exposure suit must have a whistle firmly secured by a cord to the immersion suit or anti-exposure suit.

#### § 108.595 Communications.

(a) *Radio lifesaving appliances.* Radio lifesaving appliance installations and arrangements must meet the requirements of 47 CFR part 80.

(b) *Distress flares.* Each unit must—

(1) Carry not less than 12 rocket parachute flares approved under approval series 160.136; and

(2) Stow the flares in a portable watertight container carried on the navigating bridge, or if the unit does not have a bridge, in the control room.

#### § 108.597 Line-throwing appliance.

(a) *General.* Each unit in international service must have a line-throwing appliance that is approved under approval series 160.040. Each unit not in international service must carry a line-throwing appliance approved under either approval series 160.040 or 160.031.

(b) *Stowage.* The line-throwing appliance and its equipment must be readily accessible for use.

(c) *Additional equipment.* Each unit must carry the following equipment for the line-throwing appliance:

(1) The equipment on the list provided by the manufacturer with the approved appliance; and

(2) An auxiliary line that—

(i) Has a breaking strength of at least 40 kiloNewtons (9,000 pounds-force);

(ii) Is, if synthetic, a dark color or certified by the manufacturer to be resistant to deterioration from ultraviolet light; and

(iii) Is—

(A) At least 450 meters (1,500 feet) long, if the line-throwing appliance is approved under approval series 160.040; or

(B) At least 150 meters (500 feet) long, if the line-throwing appliance is approved under approval series 160.031.

78. Section 108.645 is revised to read as follows:

#### § 108.645 Markings on lifesaving appliances.

(a) *Lifboats and rescue boats.* Each lifboat and rescue boat must be plainly marked as follows:

(1) Each side of each lifboat and rescue boat bow must be marked in block capital letters and numbers with—

(i) The name of the unit; and

(ii) The name of the port required to be marked on the stern of the unit to meet the requirements of part 67, subpart 67.13 of this chapter.

(2) The length and beam of the boat and the number of persons the boat is equipped for, not exceeding the number shown on its nameplate, must be clearly marked in permanent characters.

(3) The number of the boat and the unit's name, must be plainly marked or painted so that the markings are visible from above the boat.

(4) Type II retro-reflective material approved under approval series 164.018 must be placed on the boat and meet the arrangement requirements in IMO Resolution A.658(16).

(b) *Rigid liferafts.* Each rigid liferaft must be marked as follows:

(1) The name of the unit must be marked on each rigid liferaft.

(2) The name of the port required to be marked on the stern of the unit to meet the requirements of part 67, subpart 67.13 of this chapter.

(3) The length of the painter must be marked on each rigid liferaft.

(4) At each entrance of each rigid liferaft, the number of persons the rigid liferaft is equipped for, not exceeding the number shown on its nameplate, must be marked in letters and numbers at least 100 millimeters (4 inches) high, in a color contrasting to that of the liferaft.

79. Section 108.646 is added to read as follows:

#### § 108.646 Marking of stowage locations.

(a) Containers, brackets, racks, and other similar stowage locations for lifesaving equipment, must be marked with symbols in accordance with IMO Resolution A.760(18), indicating the devices stowed in that location for that purpose.

(b) If more than one device is stowed in that location, the number of devices must also be indicated.

(c) Survival craft should be numbered consecutively, starting from the unit's bow and designating survival craft on the starboard side with odd numerals, and survival craft on the port side with even numerals.

80. Section 108.647 is revised 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 block capital letters and numbers. The word "liferaft" or the appropriate symbol from IMO Resolution A.760(18) shall be used to identify the stowage location. Liferafts stowed on the sides of the unit should be numbered in the same manner as the liferafts. This marking must not be on the inflatable liferaft container.

81. Section 108.649 is revised to read as follows:

#### § 108.649 Lifejackets, immersion suits, and lifebuoys.

(a) Each lifejacket must be marked—

(1) In block capital letters with the name of the unit; and

(2) With type I retro-reflective material approved under approval series 164.018. The arrangement of the retro-reflective material must meet IMO Resolution A.658(16).

(b) The lifejacket stowage positions must be marked with either the word "LIFEJACKET" or with the appropriate symbol from IMO Resolution A.760(18).

(c) Each immersion suit or anti-exposure suit must be marked in block capital letters with the name of the unit.

(d) Immersion suits or anti-exposure suits must be stowed so they are readily accessible, and the stowage positions must be marked with either the words "IMMERSION SUITS" or "ANTI-EXPOSURE SUITS", or with the appropriate symbol from IMO Resolution A.760(18).

(e) Each lifebuoy must be marked—

(1) In block capital letters with the unit's name and with the name of the port required to be marked on the unit under part 67, subpart 67.13 of this chapter; and

(2) With type II retro-reflective material approved under part 164, subpart 164.018 of this chapter. The arrangement of the retro-reflective material must meet IMO Resolution A.658(16).

(f) Each lifebuoy stowage position must be marked with either the words "LIFEBUOY" or "LIFE BUOY", or with the appropriate symbol from IMO Resolution A.760(18).

(g) Each lifejacket, immersion suit, and anti-exposure suit container must be marked in block capital letters and numbers with the quantity, identity, and size of the equipment stowed inside the container. The equipment may be identified in words, or with the appropriate symbol from IMO Resolution A.760(18).

82. Section 108.650 is added to read as follows:

**§ 108.650 EPIRBs and SARTs.**

Emergency position indicating radiobeacons and search and rescue transponders. Each EPIRB and SART should have the name of the unit plainly marked or painted on its label, except for EPIRBs or SARTs in an inflatable liferaft or permanently installed in a survival craft.

83. Section 108.655 is revised to read as follows:

**§ 108.655 Operating instructions.**

Each unit must have posters or signs displayed in the vicinity of each survival craft and the survival craft's launching controls that—

- (a) Illustrate the purpose of controls;
- (b) Illustrate the procedures for operating the launching device;
- (c) Give relevant instructions or warnings;
- (d) Can be easily seen under emergency lighting conditions; and
- (e) Display symbols in accordance with IMO Resolution A.760(18).

84. Subpart J is added to read as follows:

**Subpart J—Muster list**

Sec.  
108.901 Muster list and emergency instructions.

**Subpart J—Muster list**

**§ 108.901 Muster list and emergency instructions.**

(a) *General.* Copies of clear instructions must be provided on the unit, detailing the actions that each person on board should follow in the event of an emergency.

(b) *Muster list.* Copies of the muster list must be posted in conspicuous places throughout the unit including on the navigating bridge, in the control room, and in crew accommodation spaces. The muster list must be posted at all times while the unit is in service. After the muster list has been prepared, if any change takes place that necessitates an alteration in the muster list, the person in charge must either revise the muster list or prepare a new one. Muster lists must provide the following information:

- (1) Each muster list must specify instructions for operating the general emergency alarm system.
- (2) Each muster list must specify the emergency signals.
- (3) Each muster list must specify the actions to be taken by the crew and industrial personnel when each signal is sounded.

(4) Each muster list must specify how the order to abandon the unit will be given.

(5) Each muster list must specify the persons that are assigned to make sure that lifesaving and firefighting appliances are maintained in good condition and ready for immediate use.

(6) Each muster list must specify the duties assigned to the different members of the crew, that include—

- (i) Closing the watertight doors, fire doors, valves, scuppers, sidescuttles, skylights, portholes, and other similar openings in the unit's hull;
- (ii) Equipping the survival craft and other lifesaving appliances;
- (iii) Preparing and launching the survival craft;
- (iv) Preparing other lifesaving appliances;
- (v) Mustering the visitors and other persons in addition to the crew and industrial personnel;
- (vi) Using communication equipment;
- (vii) Manning the emergency squad assigned to deal with fires and other emergencies;
- (viii) Special duties assigned with respect to the use of firefighting equipment and installations;
- (ix) Cover the duties of the crew in case of collisions or other serious casualties; and
- (x) Cover the duties of the crew in case of severe storms.

(7) Each muster list must specify the duties assigned to members of the crew in relation to visitors and other persons on board in case of an emergency, that include—

- (i) Warning visitors and other persons on board;
- (ii) Seeing that visitors and other persons on board are suitably dressed and have donned their lifejackets or immersion suits correctly;
- (iii) Assembling visitors and other persons on board at muster stations; and
- (iv) Keeping order in the passageways and on the stairways and generally controlling the movements of the visitors and other persons on board;
- (8) Each muster list must specify substitutes for key persons if they are disabled, taking into account that different emergencies require different actions.

(c) *Emergency instructions.* Illustrations and instructions in English and any other appropriate language, as determined by the OCM, must be posted in each cabin used for persons who are not members of the crew or industrial personnel, and be conspicuously displayed at each muster station and in other accommodation spaces to inform industrial personnel of—

- (1) The fire and emergency signal;
- (2) Their muster station;
- (3) The essential actions they must take in an emergency;
- (4) The location of lifejackets, including child-size lifejackets;
- (5) The method of donning lifejackets;
- (6) If immersion suits are provided, the location of the immersion suits; and
- (7) Fully illustrated instructions on the method of donning immersion suits.

**PART 109—OPERATIONS**

85. The authority citation for part 109 continues to read as follows:

Authority: 43 U.S.C. 1333; 46 U.S.C. 3306, 5115, 6101, 10104; 49 CFR 1.46.

**§§ 109.207, 109.208 [Removed]**

86. Sections 109.207 and 109.208 are removed.

87. Section 109.213 is revised to read as follows:

**§ 109.213 Emergency training and drills.**

(a) *Training materials.* Abandonment training material must be on board each unit. The training material must consist either of a manual of one or more volumes, written in easily understood terms and illustrated wherever possible, or audiovisual training aids, or both as follows:

(1) If a training manual is used, a copy must be made available to each person on board the unit. If audiovisual training aids are used, they must be incorporated into the onboard training sessions described under paragraph (g) of this section.

(2) The training material must explain, in detail—

- (i) The procedure for donning lifejackets, immersion suits, and anti-exposure suits carried on board;
- (ii) The procedure for mustering at the assigned stations;
- (iii) The procedure for boarding, launching, and clearing the survival craft and rescue boats;
- (iv) The method of launching from within the survival craft;
- (v) The procedure for releasing from launching appliances;
- (vi) The method and use of devices for protection in launching areas, where appropriate;
- (vii) Illumination in launching area;
- (viii) The use of all survival equipment;
- (ix) The use of all detection equipment;
- (x) With illustrations, the use of radio lifesaving appliances;
- (xi) The use of sea anchors;
- (xii) The use of engine and accessories;
- (xiii) The recovery of survival craft and rescue boats, including stowage and securing;

(xiv) The hazards of exposure and the need for warm clothing;

(xv) The best use of the survival craft for survival;

(xvi) The methods of retrieval, including the use of helicopter rescue gear (slings, baskets, stretchers), and unit's line throwing apparatus;

(xvii) The other functions contained in the muster list and emergency instructions; and

(xviii) The instructions for emergency repair of the lifesaving appliances.

(b) *Familiarity with emergency procedures.* Every crew member with assigned emergency duties on the muster list, must be familiar with their assigned duties before working on the unit.

(c) *Drills—general.* (1) Drills must, as far as practicable, be conducted as if there were an actual emergency.

(2) Every crew member must participate in at least one abandonment drill and one fire drill every month. A drill must take place within 24 hours of a change in crew or industrial personnel if more than 25 percent of the persons on board have not participated in an abandonment drill on board the unit in the previous month.

(3) Drills must be held before the unit enters service for the first time after modification of a major character, or when a new crew is engaged.

(d) *Abandonment drills.* (1) Abandonment drills must include the following:

(i) Each drill must include summoning of industrial personnel and crew to muster stations with the general alarm, followed by drill announcements on the public address or other communication system, and ensuring that all on board are made aware of the order to abandon ship.

(ii) Each drill must include reporting to stations and preparing for the duties described in the muster list.

(iii) Each drill must include checking that industrial personnel and crew are suitably dressed.

(iv) Each drill must include checking that lifejackets or immersion suits are correctly donned.

(v) Each drill must include lowering of at least one lifeboat after any necessary preparation for launching.

(vi) Each drill must include starting and operating the lifeboat engine.

(vii) Each drill must include operating davits used for launching the liferafts.

(2) Different lifeboats must, as far as practicable, be lowered in compliance with the requirements of paragraph (d)(1)(v) of this section at successive drills.

(3) 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.

(4) As far as is reasonable and practicable, rescue boats other than lifeboats which are also rescue boats, must be launched each month with their assigned crew aboard and maneuvered in the water. In all cases this requirement must be complied with at least once every 3 months.

(5) If a unit is fitted with marine evacuation systems, drills must include an exercising of the procedures required for the deployment of such a system up to the point immediately preceding actual deployment of the system. This aspect of drills should be augmented by regular instruction using the on board training aids. Additionally, every crew member assigned to duties involving the marine evacuation system must, as far as practicable, be further trained by participation in a full deployment of a similar system into water, either on board a unit or ashore, at intervals of not longer than 2 years, but in no case longer than 3 years.

(6) Emergency lighting for mustering and abandonment must be tested at each abandonment drill.

(7) On a unit carrying immersion suits or anti-exposure suits, immersion suits or anti-exposure suits must be worn by crew members and industrial personnel in at least one abandonment drill per month. If wearing the suit is impracticable due to warm weather, the crew members must be instructed on its donning and use.

(e) *Line-throwing appliance.* A drill must be conducted on the use of the line-throwing appliance at least once every 3 months. The actual firing of the appliance is at the discretion of the person in charge.

(f) *Fire drills.* (1) Fire drills must, as far as practicable, be planned in such a way that due consideration is given to regular practice in the various emergencies that may occur depending on the type of unit.

(2) Each fire drill must include—

(i) Reporting to stations, and preparing for the duties described in the muster list for the particular fire emergency being simulated;

(ii) Starting of fire pumps and the use of two jets of water to determine that the system is in proper working order;

(iii) Checking the fireman's outfits and other personal rescue equipment;

(iv) Checking the relevant communication equipment;

(v) Checking the operation of watertight doors, fire doors, and fire dampers and main inlets and outlets of ventilation systems in the drill area;

(vi) Checking the necessary arrangements for subsequent abandonment of the unit; and

(vii) Operation of remote controls for stopping ventilation and fuel supplies to machinery spaces.

(3) The equipment used during drills must immediately be brought back to its fully operational condition, and any faults and defects discovered during the drills must be remedied as soon as possible.

(g) *Onboard training and instruction.*

(1) Except as provided in paragraph (g)(2) of this section, onboard training in the use of the unit's lifesaving appliances, including survival craft equipment, and in the use of the unit's fire-extinguishing appliances 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 crew or industrial personnel are on a regularly scheduled rotating assignment to the unit, onboard training in the use of the unit's lifesaving appliances, including survival craft equipment, and in the use of the unit's fire-extinguishing appliances must be given not later than 2 weeks after the time of first joining the unit.

(3) The crew and industrial personnel must be instructed in the use of the unit's fire-extinguishing appliances, lifesaving appliances, and in survival at sea at the same interval as the drills. Individual instruction may cover different parts of the unit's lifesaving and fire-extinguishing appliances, but all the unit's lifesaving and fire-extinguishing appliances, must be covered within any period of 2 months.

(4) Crew and industrial personnel must be given instructions which include, but are not limited to—

(i) The operation and use of the unit's inflatable liferafts;

(ii) The problems of hypothermia, first aid treatment for hypothermia and other appropriate first aid procedures;

(iii) The special instructions necessary for use of the unit's lifesaving appliances in severe weather and severe sea conditions; and

(iv) The operation and use of fire-extinguishing appliances.

(5) 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 is not part of the unit's lifesaving

equipment, this liferaft must be conspicuously marked.

(6) Each of the industrial personnel without designated responsibility for the survival of others on board, must be instructed in at least—

- (i) The emergencies which might occur on that particular type of unit;
- (ii) The consequences of panic;
- (iii) The location and actuation of fire alarm controls;
- (iv) The location and proper method of use of firefighting equipment;
- (v) Fire precautions;
- (vi) The types of all lifesaving appliances carried on the unit and proper methods of using them, including—

(A) The correct method of donning and wearing a lifejacket, and if provided an immersion suit;

(B) Jumping into the water from a height while wearing a lifejacket and, if provided, an immersion suit;

(C) How to board survival craft from the unit and from the water;

(D) Operation and use of the unit's inflatable liferafts;

(E) Special instructions necessary for use of the unit's lifesaving appliances in severe weather and severe sea conditions;

(F) Swimming while wearing a lifejacket; and

(G) Keeping afloat without a lifejacket.

(vii) Where appropriate, how to survive in the water—

(A) In the presence of fire or oil on the water;

(B) In cold conditions; and

(C) If sharks may be present.

(viii) Problems of hypothermia, first aid treatment for hypothermia and other appropriate first aid procedures;

(ix) The need to adhere to the principles of survival; and

(x) The basic methods of boarding helicopters.

(7) 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 (g)(6) of this section, and—

(i) Methods of detection, isolation, control, and extinguishing of fire;

(ii) Checking and maintaining fire fighting equipment;

(iii) Marshaling of personnel; and

(iv) Abandonment of the unit, including—

(A) Launching survival craft;

(B) Getting survival craft quickly and safely clear of the unit; and

(C) Righting a capsized survival craft.

(v) Handling all survival craft and their equipment, including—

(A) Checking and maintaining their readiness for immediate use;

(B) Using equipment to the best advantage;

(C) Using the sea anchor;

(D) Remaining, as far as practicable, in the general vicinity of the unit, well clear of but not downwind of any hydrocarbons or fire;

(E) Recovering and, as far as practicable, caring for other survivors;

(F) Keeping a lookout;

(G) Operating available means of detection by others, including radio distress alerting and radio emergency procedures; and

(H) 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.

(vi) Cautioning on the preservation of body fluids and the dangers of drinking seawater;

(vii) Transferring personnel from survival craft to helicopters or to work boats;

(viii) Maintaining morale; and

(ix) Methods of helicopter rescue.

(h) *Records.* (1) When musters are held, details of abandonment drills, fire drills, other lifesaving appliances, and onboard training must be recorded in the unit's official logbook. Logbook entries must include the following:

(i) Logbook entries must identify the date and time of the drill, muster, or training session.

(ii) Logbook entries must identify the survival craft and fire-extinguishing equipment used in the drills.

(iii) Logbook entries must identify the inoperative or malfunctioning equipment and the corrective action taken.

(iv) Logbook entries must identify crew members participating in drills or training sessions.

(v) Logbook entries must identify the subject of the onboard training session.

(2) If a full muster, drill, or training session is not held at the appointed time, an entry must be made in the logbook stating the circumstances and the extent of the muster, drill, or training session held.

**§§ 109.215, 109.217, 109.219, 109.221, 109.225 [Removed]**

88. Sections 109.215, 109.217, 109.219, 109.221, and 109.225 are removed.

89. Section 109.301 is revised to read as follows:

**§ 109.301 Operational readiness, maintenance, and inspection of lifesaving equipment.**

(a) *Operational readiness.* Except as provided in § 109.301(b)(3), each

lifesaving appliance must be in good working order and ready for immediate use at all times when the unit is in operation.

(b) *Maintenance.* (1) The manufacturer's instructions for onboard maintenance of lifesaving appliances must be onboard and must include the following for each appliance—

(i) Checklists for use when carrying out the inspections required under § 109.301(e);

(ii) Maintenance and repair instructions;

(iii) A schedule of periodic maintenance;

(iv) A diagram of lubrication points with the recommended lubricants;

(v) A list of replaceable parts;

(vi) A list of sources of spare parts; and

(vii) A log for records of inspections and maintenance.

(2) In lieu of compliance with paragraph (b)(1) of this section, The OCMI may accept a planned maintenance program that includes the items listed in that paragraph.

(3) If lifeboats, rescue boats or rigid liferafts are maintained and repaired while the unit is in operation, there must be a sufficient number of lifeboats and liferafts remaining available for use to accommodate all persons on board.

(c) *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.

(d) *Weekly inspections and tests.* (1) Each survival craft, rescue boat, and launching appliance must be visually inspected to ensure its readiness for use.

(2) Each lifeboat engine and rescue boat engine must be run ahead and astern for not less than 3 minutes, unless the ambient temperature is below the minimum temperature required for starting the engine. During this time, demonstrations should indicate that the gear box and gear box train are engaging satisfactorily. If the special characteristics of an outboard motor fitted to a rescue boat would not allow the outboard motor to be run other than with its propeller submerged for a period of 3 minutes, the outboard motor should be run for such period as prescribed in the manufacturer's handbook.

(3) The general alarm system must be tested.

(e) *Monthly inspections.* (1) Each lifesaving appliance, including lifeboat equipment, must be inspected monthly using the checklists required under paragraph (b) of this section to make sure it is complete and in good working

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.

(2) 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.

(f) *Annual inspections.* Annual inspection and repair must include the following:

(1) Each survival craft, except for inflatable liferafts, must be stripped, cleaned, and thoroughly inspected and repaired, as needed, at least once in each year, including emptying and cleaning each fuel tank, and refilling it with fresh fuel.

(2) Each davit, winch, fall and other launching appliance must be thoroughly inspected and repaired, as needed, once in each year.

(3) Each item of survival equipment with an expiration date must be replaced during the annual inspection and repair, if the expiration date has passed.

(4) Each battery clearly marked with an expiration date, that is used in an item of survival equipment must be replaced during the annual inspection and repair, if the expiration date has passed.

(5) Except for a storage battery used in a lifeboat or rescue boat, each battery without an expiration date that is used in an item of survival equipment must be replaced during the annual inspection and repair.

(g) *Servicing of inflatable lifesaving appliances, inflated rescue boats, and marine evacuation systems.*

(1) Each inflatable lifesaving appliance and marine evacuation system must be serviced—

(i) Within 12 months of its initial packing; and

(ii) Within 12 months of each subsequent servicing, except when servicing is delayed until the next scheduled inspection of the unit, provided the delay does not exceed 5 months.

(2) Each inflatable lifejacket must be serviced in accordance with servicing procedures meeting the requirements of part 160, subpart 160.176 of this chapter. Each hybrid inflatable lifejacket must be serviced in accordance with the owners manual and meet the requirements of part 160, subpart 160.077 of this chapter.

(3) Each inflatable liferaft must be serviced—

(i) Whenever the container of the raft is damaged, or the straps or seal broken; and

(ii) In accordance with servicing procedures meeting the requirements of part 160, subpart 160.051 of this chapter.

(4) Each inflated rescue boat must be repaired and maintained in accordance with the manufacturer's instructions. All repairs must be made at a servicing facility approved by the Commandant (G-MSE), except for emergency repairs carried out on board the unit.

(h) *Periodic servicing of hydrostatic release units.* Each hydrostatic release unit, other than a disposable 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 the delay does not exceed 5 months; and

(2) In accordance with repair and testing procedures meeting the requirements of part 160, subpart 160.062 of this chapter.

(i) *Periodic servicing of launching appliances and release gear.* (1)

Launching appliances must be serviced at the intervals recommended in the manufacturer's instructions, or as set out in the shipboard planned maintenance program.

(2) Launching appliances must be thoroughly examined at intervals not exceeding 5 years and upon completion of the examination, the launching appliance must be subjected to a dynamic test of the winch brake.

(3) Lifeboat and rescue boat release gear must be serviced at the intervals recommended in the manufacturer's instructions, or as set out in the planned maintenance program.

(4) Lifeboat and rescue boat release gear must be subjected to a thorough examination by properly trained personnel familiar with the system at each inspection for certification.

(5) Lifeboat and rescue boat release gear must be operationally tested under a load of 1.1 times the total mass of the lifeboat when loaded with its full complement of persons and equipment, whenever overhauled, or at least once every 5 years.

(j) *Maintenance of falls.* (1) Each fall used in a launching appliance must be turned end-for-end at intervals of not more than 30 months and must be renewed when necessary due to deterioration or at intervals of not more than 5 years, whichever is earlier.

(2) As an alternative to paragraph (j)(1) of this section, each fall may be inspected annually and renewed

whenever necessary due to deterioration or at intervals of not more than 4 years, whichever is earlier.

(k) *Rotational deployment of marine evacuation systems.* In addition to or in conjunction with the servicing intervals of marine evacuation systems required by paragraph (g)(1) of this section, each marine evacuation system must be deployed from the unit on a rotational basis. Each marine evacuation system must be deployed at least once every 6 years.

**§§ 109.305, 109.307, 109.313, 109.314, 109.317, 109.320, 109.321 [Removed]**

90. Sections 109.305, 109.307, 109.313, 109.314, 109.317, 109.320 and 109.321 removed.

91. Section 109.323 is revised to read as follows:

**§ 109.323 Manning of survival craft and supervision.**

(a) There must be a sufficient number of trained persons on board the survival craft 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 on board.

(c) There must be one person placed in charge of each survival craft to be used. The person in charge must—

(1) Be a deck officer, able seaman, or certificated person. The OCMI, considering the number of persons permitted on board, and the characteristics of the unit, may permit persons practiced in the handling and operation of liferafts or inflatable buoyant apparatus to be placed in charge of liferafts or inflatable buoyant apparatus;

(2) Have another person designated second-in-command of each lifeboat permitted to carry more than 40 persons. This person should be a deck officer, able seaman, or certificated person; and

(3) Have a list of the survival craft crew and must see that the crewmembers are acquainted with their duties. The second-in-command of a lifeboat must also have a list of the lifeboat crew.

(d) There must be a person assigned to each motorized survival craft who is capable of operating the engine and carrying out minor adjustments.

(e) The person in charge must make sure that the persons required under paragraphs (a), (b), and (c) of this section are equitably distributed among the unit's survival craft.

**§ 109.325 [Removed]**

92. Section 109.325 is removed.

**§ 109.341 [Removed]**

93. Section 109.341 is removed.

94. Section 109.425 is revised 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 OCMI.

(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 OCMI.

95. In § 109.433, paragraph (d) is revised; paragraphs (e) through (i), and (n) are removed; and paragraphs (j) through (m) are redesignated as paragraphs (e) through (h) to read as follows:

**§ 109.433 Logbook entries.**

\* \* \* \* \*

(d) The logbook must include information on emergency training drills required in § 109.213(h).

\* \* \* \* \*

96. In subpart E, the heading is revised to read as follows:

**Subpart E—Emergency Signals**

**§ 109.501 [Removed]**

97. Section 109.501 is removed.

98. In § 109.503, paragraph (a) is removed, and paragraphs (b) and (c) are redesignated as paragraphs (a) and (b), and the section heading and newly redesignated paragraph (b)(2) are revised to read as follows:

**§ 109.503 Emergency signals.**

\* \* \* \* \*

(b) \* \* \*

(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]**

99. Section 109.505 is removed.

**SUBCHAPTER L—OFFSHORE SUPPLY VESSELS**

**PART 125—GENERAL**

Authority: 46 U.S.C. 2103, 3306, 3703; 49 U.S.C. App. 1804; 49 CFR 1.46.

100. In § 125.160, add definitions in alphabetical order, to read as follows:

**§ 125.160 Definitions.**

\* \* \* \* \*

*Anti-exposure suit* means a protective suit designed for use by rescue boat crews and marine evacuation system parties.

*Approval series* means the first six digits of a number assigned by the Coast Guard to approved equipment. Where approval is based on a subpart of subchapter Q of this chapter, the approval series corresponds to the number of the subpart. A listing of approved equipment, including all of the approval series, is published periodically by the Coast Guard in Equipment Lists (COMDTINST M16714.3 series), available from the Superintendent of Documents.

\* \* \* \* \*

*Crew* means all persons carried on board the OSV to provide navigation and maintenance of the OSV, its machinery, systems, and arrangements essential for propulsion and safe navigation or to provide services for other persons on board.

\* \* \* \* \*

*Embarkation ladder* means the ladder provided at survival craft embarkation stations to permit safe access to survival craft after launching.

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

\* \* \* \* \*

*Float-free launching* means that method of launching a survival craft or lifesaving appliance whereby the craft or appliance is automatically released from a sinking vessel and is ready for use.

\* \* \* \* \*

*Immersion suit* means a protective suit that reduces loss of body heat of a person wearing it in cold water.

*Inflatable appliance* means an appliance that depends upon nonrigid, gas-filled chambers for buoyancy and that is normally kept uninflated until ready for use.

*Inflated appliance* means an appliance that depends upon nonrigid, gas-filled chambers for buoyancy and

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that is kept inflated and ready for use at all times.

\* \* \* \* \*

*Launching appliance* or *launching arrangement* means the method or devices for 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.

\* \* \* \* \*

*Lifejacket* means a flotation device approved as a life preserver or lifejacket.

\* \* \* \* \*

*Marine evacuation system* means an appliance designed to rapidly transfer large numbers of persons from an embarkation station by means of a passage to a floating platform for subsequent embarkation into associated survival craft, or directly into associated survival craft.

\* \* \* \* \*

*Muster station* means the place where the crew and offshore workers 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 part but that provides an equal or higher standard of safety.

\* \* \* \* \*

*Rescue boat* means a boat designed to rescue persons in distress and to marshal survival craft.

*Seagoing condition* means the operating condition of the OSV with the personnel, equipment, fluids, and ballast necessary for safe operation on the waters where the OSV operates.

*Survival craft* means a craft capable of sustaining the lives of persons in distress from the time of abandoning the OSV on which the persons were originally carried. The term includes lifeboats, liferafts, buoyant apparatus, and lifefloats, but does not include rescue boats.

101. In § 125.180, paragraph (b) under International Maritime Organization (IMO), the entries for Resolution A.658(16) and Resolution A.760(18) are revised, and a new entry for Resolution A.520(13) is added in numerical order to read as follows:

**§ 125.180 Incorporation by reference.**

\* \* \* \* \*

(b) \* \* \*

4 Albert Embankment, London, SE1 7SR, England  
Resolution A.520(13), Code of Practice for the Evaluation, Testing and Acceptance of Prototype 133.40  
Novel Life-saving Appliances and Arrangements, 17 November 1983.



Resolution A.658(16), Use and Fitting of Retroreflective Materials on Life-saving Appliances, 20 November 1989.	131.855; 131.875; 133.70
Resolution A.760(18), Symbols Related to Life-saving Appliances and Arrangements, 17 November 1993.	131.875; 133.70; 133.90
International Convention for the Safety of Life at Sea (SOLAS), Consolidated Edition, 1992 .....	126.170

102. Part 133, consisting of §§ 133.03 through 133.175, is added to read as follows:

## **PART 133—LIFESAVING SYSTEMS**

### **Subpart A—General**

- Sec.
- 133.03 Relationship to international standards.
- 133.07 Additional equipment and requirements.
- 133.09 Equivalents.
- 133.10 Applicability.
- 133.20 Exemptions.
- 133.40 Evaluation, testing and approval of lifesaving appliances and arrangements.
- 133.45 Tests and inspections of lifesaving equipment and arrangements.

### **Subpart B—Requirements for All OSVs**

- 133.60 Communications.
- 133.70 Personal lifesaving appliances.
- 133.80 Emergency instructions.
- 133.90 Operating instructions.
- 133.105 Survival craft.
- 133.110 Survival craft muster and embarkation arrangements.
- 133.120 Launching stations.
- 133.130 Stowage of survival craft.
- 133.135 Rescue boats.
- 133.140 Stowage of rescue boats.
- 133.145 Marine evacuation system launching arrangements.
- 133.150 Survival craft launching and recovery arrangements: general.
- 133.153 Survival craft launching and recovery arrangements using falls and a winch.
- 133.160 Rescue boat embarkation, launching and recovery arrangements.
- 133.170 Line-throwing appliance.
- 133.175 Survival craft and rescue boat equipment.

Authority: 46 U.S.C. 3306; 46 CFR 1.46.

### **Subpart A—General**

#### **§ 133.03 Relationship to international standards.**

This subpart and subpart B of this part are based on Chapter III, SOLAS. Section numbers in this subpart and subpart B of this part are generally related to the regulation numbers in Chapter III, SOLAS, but paragraph designations are not related to the numbering in Chapter III, SOLAS. To find the corresponding Chapter III, SOLAS regulation for this subpart and subpart B of this part, beginning with § 133.10, divide the section number following the decimal point by 10.

#### **§ 133.07 Additional equipment and requirements.**

The OCMI may require an OSV to carry specialized or additional lifesaving equipment other than as required in this part if the OCMI determines that the conditions of a voyage present uniquely hazardous circumstances which are not adequately addressed by existing requirements.

#### **§ 133.09 Equivalents.**

When this part requires a particular fitting, material, or lifesaving appliance or arrangement, the Commandant (G-MSE) may accept any other fitting, material, or lifesaving appliance or arrangement that is at least as effective as that required by this part. The Commandant may require engineering evaluations and tests to determine the equivalent effectiveness of the substitute fitting, material, or lifesaving appliance or arrangement.

#### **§ 133.10 Applicability.**

(a) Unless expressly provided otherwise in this part, this part applies to all inspected OSVs of the United States flag, including lifeboats.

(b) Offshore supply vessels which were constructed prior to October 1, 1996, must—

(1) By October 1, 1997, meet the requirements of §§ 133.60(a), 133.80, and 133.90;

(2) By October 1, 1997, fit retro-reflective material on all floating appliances, lifejackets, and immersion suits; and

(3) Offshore supply vessels may retain the arrangement of lifeboats, lifeboat davits, winches, inflatable liferafts, liferaft launching equipment, rescue boats, lifefloats, and buoyant apparatus previously required and approved for the OSV, as long as the arrangement or appliance is maintained in good condition to the satisfaction of the OCMI.

(c) When any lifesaving appliance or arrangement on an OSV subject to this part is replaced, or when the OSV 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 the requirements of this part, unless the OCMI determines that the OSV cannot accommodate the new appliance or arrangement.

#### **§ 133.20 Exemptions.**

(a) If a District Commander determines that the overall safety of the persons on board an OSV will not be significantly reduced, the District Commander may grant an exemption from compliance with a provision of this part to a specific OSV for a specified geographic area within the boundaries of the Coast Guard District. This exemption may be limited to certain periods of the year.

(b) Requests for exemption under this section must be in writing to the OCMI for transmission to the District Commander in the area in which the OSV is in service or will be in service.

(c) If the exemption is granted by the District Commander, the OCMI will endorse the OSV's Certificate of Inspection with a statement describing the exemption.

#### **§ 133.40 Evaluation, testing and approval of lifesaving appliances and arrangements.**

(a) Each item of lifesaving equipment required by this part to be carried on board the OSV must be approved.

(b) Each item of lifesaving equipment carried on board the OSV in addition to those required by this part must—

- (1) Be approved; or
- (2) Be accepted by the cognizant OCMI for use on the OSV.

(c) The Commandant (G-MSE) may accept a novel lifesaving appliance or arrangement if it provides a level of safety equivalent to the requirements of this part and if the appliance or arrangement—

- (1) Is evaluated and tested in accordance with IMO Resolution A.520(13), Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Life-saving Appliances and Arrangements; or
- (2) Has successfully undergone evaluation and tests that are substantially equivalent to those recommendations.

(d) During an OSV's construction, and when any modification to the lifesaving arrangement is done after construction, a OSV owner must obtain acceptance of lifesaving arrangements from the Commandant (G-MSC).

(e) The OCMI may accept substitute lifesaving appliances other than those required by this part, except for—

- (1) Survival craft and rescue boats; and
- (2) Survival craft and rescue boat launching and embarkation appliances.

(f) Acceptance of lifesaving appliances and arrangements will remain in effect unless—

(1) The OCMI deems their condition to be unsatisfactory or unfit for the service intended; or

(2) The OCMI deems the crew's ability to use and assist others in the use of the lifesaving appliances or arrangements to be inadequate.

**§ 133.45 Tests and inspections of lifesaving equipment and arrangements.**

(a) *Initial inspection.* The initial inspection of lifesaving appliances and arrangements for certification includes a demonstration of—

(1) The proper condition and operation of the survival craft and rescue boat launching appliances at loads ranging from light load to 10 percent overload;

(2) The proper condition and operation of rescue boats, including engines and release mechanisms;

(3) The proper condition of flotation equipment such as lifebuoys, lifejackets, immersion suits, work vests, lifefloats, buoyant apparatus, and associated equipment;

(4) The proper condition of distress signaling equipment, including EPIRB and pyrotechnic signaling devices;

(5) The proper condition of line-throwing appliances;

(6) The proper condition and operation of embarkation appliances, including embarkation ladders and marine evacuation systems;

(7) The ability of the crew to effectively carry out abandon-ship procedures; and

(8) The ability to meet the egress and survival craft launching requirements of this part.

(b) *Reinspections.* Tests and inspections of lifesaving equipment shall be carried out during each inspection for renewal of certification, and shall demonstrate, as applicable,—

(1) The proper condition and operation of the survival craft and rescue boat launching appliances at loads ranging from light load to full load;

(2) The proper condition and operation of rescue boats including engines and release mechanisms;

(3) The proper condition of flotation equipment such as lifebuoys, lifejackets, immersion suits, work vests, lifefloats, buoyant apparatus, and associated equipment;

(4) That each inflatable liferaft and inflatable lifejacket has been serviced as required under this chapter;

(5) That each hydrostatic release unit, other than a disposable hydrostatic release unit, has been serviced as required under this chapter; and

(6) That the crew has the ability to effectively carry out abandon-ship procedures.

(c) *Other inspections.* Lifesaving appliances and arrangements are subject to tests and inspections described in paragraph (b) of this section during OSV boardings to ensure that the appliances and arrangements comply with applicable requirements, are in satisfactory condition, and remain fit for service.

**Subpart B—Requirements for All OSVs**

**§ 133.60 Communications.**

(a) *Emergency position indicating radiobeacons (EPIRB) and search and rescue transponders (SART).*

(1) Each OSV must carry a category 1 406 MHz satellite EPIRB meeting the requirements of 47 CFR part 80.

(2) When the OSV is underway, the EPIRB must be stowed in its float-free bracket with the controls set for automatic activation and mounted in a manner so that it will float free if the OSV sinks.

(3) Each EPIRB should have the name of the OSV plainly marked or painted on its label, except for EPIRBs in an inflatable liferaft or permanently installed in a survival craft.

(b) *Distress flares.* Each OSV must—

(1) Carry not less than 12 rocket parachute flares approved under approval series 160.136; and

(2) Stow the flares on or near the OSV's navigating bridge.

(c) *Onboard communications and alarm systems.* Each OSV must meet the requirements for onboard communications between emergency control stations, muster and embarkation stations, and strategic positions on board, and the emergency alarm system requirements in part J of this chapter, and be supplemented by either a public address system or other suitable means of communication.

(d) *Emergency position indicating radiobeacon alternative.* OSVs, as an alternative to the requirements in paragraph (a) of this section, may until February 1, 1999, have a Coast Guard-approved class A EPIRB, if the EPIRB was—

(1) Manufactured after October 1, 1988; and

(2) Installed on the OSV on or before July 5, 1996.

**§ 133.70 Personal lifesaving appliances.**

(a) *Lifebuoys.* Each OSV must carry lifebuoys approved under approval series 160.150 and 160.050 as follows:

(1) *Number.* The number of lifebuoys carried must be as prescribed in table 133.70 of this section.

TABLE 133.70

Length of vessel in meters (feet)	Minimum number of ring lifebuoys	
	Ocean service	Coastwise service
Under 30 (98) .....	8	3
30 (98) and under 60 (196) .....	8	4
60 (196) and under 100 (328) .....	8	6
100 (328) and over ...	12	12

(2) *Stowage.* Lifebuoys must be stowed as follows:

(i) Each lifebuoy must be capable of being rapidly cast loose.

(ii) Each lifebuoy must not be permanently secured to the OSV in any way.

(iii) Each lifebuoy stowage position must be marked with either the words "LIFEBUOY" or "LIFE BUOY", or with the appropriate symbol from IMO Resolution A.760(18).

(iv) Lifebuoys must be so distributed as to be readily available on each side of the OSV and, as far as practicable, on each open deck extending to the side of the OSV. At least one lifebuoy must be located near the stern of the OSV. The lifebuoys with attached self-igniting lights must be equally distributed on both sides of the OSV.

(3) *Color and markings.* Lifebuoys must be colored and marked as follows:

(i) Each lifebuoy must be orange.

(ii) Each lifebuoy must be marked in block capital letters with the name of the OSV and the name of the port required to be marked on the stern of the OSV under § 67.13 of this chapter.

(4) *Attachments and fittings.* Lifebuoys must have the following attachments and fittings:

(i) At least one lifebuoy on each side of the OSV fitted with a buoyant lifeline that is—

(A) At least as long as twice the height where it is stowed above the waterline in the lightest seagoing condition, or 30 meters (100 feet), whichever is the greater;

(B) Non-kinking;

(C) Not less than 8 millimeters (5/16 inch) in diameter;

(D) Of a breaking strength which is not less than 5 kiloNewtons (1,124 pounds-force); and

(E) Resistant to deterioration from ultraviolet light. Line that is certified by the manufacturer or is synthetic and a dark color meets this requirement.

(ii) Except for an OSV in coastwise service and under 30 meters (99 feet) in length, at least one-half the total number of lifebuoys, but not less than two, must

each be fitted with a self-igniting light approved under approval series 161.010. The self-igniting light must not be attached to the lifebuoys required by this section to be fitted with lifelines. However, if the OSV carries less than four lifebuoys, a buoyant lifeline can be fitted to one of the lifebuoys with a self-igniting light.

(b) *Lifejackets*. Each OSV must carry lifejackets approved under approval series 160.002, 160.005, 160.055, 160.077, 160.155, 160.176, or 160.177. If the OSV carries inflatable lifejackets, they must be of the same or similar design and have the same method of operation.

(1) *General*. Each OSV must carry a lifejacket for each person on board and in addition, a sufficient number of lifejackets must be carried for persons on watch and for use at remotely located survival craft stations.

(2) *Stowage*. Lifejackets must be stowed as follows:

(i) The lifejackets must be readily accessible.

(ii) The lifejacket stowage positions must be marked with either the word "LIFEJACKETS" or with the appropriate symbol from IMO Resolution A.760(18).

(iii) The additional lifejackets required by paragraph (b)(1) of this section must be stowed on the bridge, in the engine control room, and at other manned watch stations.

(3) *Markings*. Each lifejacket must be marked—

(i) In block capital letters with the name of the OSV; and

(ii) With type I retro-reflective material approved under approval series 164.018. The arrangement of the retro-reflective material must meet IMO Resolution A.658(16).

(4) *Lifejacket lights*. Each lifejacket must have a lifejacket light approved under approval series 161.112 or 161.012 securely attached to the front shoulder area of the lifejacket. Chemiluminescent-type lifejacket lights approved under approval series 161.012 are not permitted on OSVs certificated to operate on waters where water temperature may drop below 10 °C (50 °F).

(c) *Immersion suits or anti-exposure suits*. Immersion suits must be approved under approval series 160.171, and anti-exposure suits must be approved under approval series 160.153.

(1) *General*. Each OSV, except OSVs operating in the Gulf of Mexico or on other routes between 32 degrees north latitude and 32 degrees south latitude, must carry—

(i) An immersion suit or anti-exposure suit of suitable size for each person assigned to the rescue boat crew; and

(ii) An immersion suit of the appropriate size for each person on board. The immersion suits required under this paragraph count toward meeting the requirements of paragraph (c)(1)(i) of this section.

(2) *Stowage*. Immersion suits and anti-exposure suits must be stowed as follows:

(i) Immersion suits and anti-exposure suits must be stowed so they are readily accessible, and the stowage positions must be marked with the words "IMMERSION SUITS" or "ANTI-EXPOSURE SUITS" as appropriate, or with the appropriate symbol from IMO Resolution A.760(18).

(ii) If watch stations, work stations, or work sites are remote from cabins, staterooms, or berthing areas and the immersion suits are stowed in those locations, there must be, in addition to the immersion suits required under paragraph (c)(1)(ii) of this section, enough immersion suits stowed at the watch stations, work stations, or work sites to equal the number of persons normally on watch in, or assigned to, those locations at any time.

(3) *Markings*. Each immersion suit or anti-exposure suit must be marked in block capital letters with the name of the OSV.

(4) *Lights for immersion suits or anti-exposure suits*. Each immersion suit or anti-exposure suit must have a lifejacket light approved under approval series 161.112 or 161.012 securely attached to the front shoulder area of the immersion suit or anti-exposure suit.

Chemiluminescent-type lifejacket lights approved under approval series 161.012 are not permitted on OSVs certificated to operate on waters where water temperature may drop below 10 °C (50 °F).

(d) *Lifejacket, immersion suit, and anti-exposure suit containers*. Each lifejacket, immersion suit, and anti-exposure suit container must be marked in block capital letters and numbers with the quantity, identity, and size of the equipment stowed inside the container. The equipment may be identified in words, or with the appropriate symbol from IMO Resolution A.760(18).

#### § 133.80 Emergency instructions.

(a) *General*. Copies of clear instructions must be provided on the OSV, detailing the actions that each person on board should follow in the event of an emergency.

(b) *Emergency instructions*. Illustrations and instructions in English and any other appropriate language, as determined by the OCM, must be conspicuously displayed at each muster

station and in spaces where offshore workers are carried, to inform offshore workers of—

- (1) The fire and emergency signal;
- (2) Their muster station;
- (3) The essential actions they must take in an emergency;
- (4) The location of lifejackets; and
- (5) The method of donning lifejackets.

#### § 133.90 Operating instructions.

Each OSV must have posters or signs displayed in the vicinity of each survival craft and the survival craft's launching controls that—

- (a) Illustrate the purpose of controls;
- (b) Illustrate the procedures for operating the launching device;
- (c) Give relevant instructions or warnings;
- (d) Can be easily seen under emergency lighting conditions; and
- (e) Display symbols in accordance with IMO Resolution A.760(18).

#### § 133.105 Survival craft.

(a) Each survival craft must be approved and equipped as follows:

(1) Each inflatable liferaft—

(i) On an OSV on an unlimited oceans route, must be approved under approval series 160.151 and be equipped with a SOLAS A pack;

(ii) On an OSV on an oceans route limited to within 50 nautical miles of the shore, must be approved under approval series 160.151 and be equipped with either a SOLAS A pack or SOLAS B pack; and

(iii) On an OSV on a coastwise route, must be approved under approval series 160.151 or 160.151, with any approved equipment pack.

(2) Each rigid liferaft must be approved under approval series 160.118 and be equipped as specified in table 133.175 of this part.

(3) Each inflatable buoyant apparatus must be approved under approval series 160.010.

(4) Each lifefloat must be approved under approval series 160.027 and be equipped with the following:

(i) *One boathook*.

(ii) *Two paddles*. Each paddle must be at least 1.2 meters (4 feet) long and buoyant.

(iii) *One painter*. The painter must—  
(A) Be at least 30 meters (100 feet) long, but not less than three times the distance between the deck where the lifefloats are stowed and to the OSV's waterline in the lightest seagoing condition;

(B) Have a breaking strength of at least 6.7 kilonewtons (1,500 pounds-force), except that if the capacity of the lifefloat is 50 persons or more, the breaking strength must be at least 13.4 kilonewtons (3,000 pounds-force);

(C) If made of a synthetic material, be dark in color or certified by the manufacturer to be resistant to deterioration from ultraviolet light;

(D) Be stowed in such a way that it runs out freely when the buoyant apparatus, inflatable buoyant apparatus, or lifefloat floats away from the sinking OSV; and

(E) Have a float-free link meeting the requirements of part 160, subpart 160.073 of this chapter, connecting the painter to the OSV.

(iv) *One self-igniting light.* The self-igniting light must be approved under approval series 161.010, and must be attached to the buoyant apparatus, inflatable buoyant apparatus, or lifefloat by a 12-thread manila or equivalent lanyard, at least 5.5 meters (18 feet) long. The self-igniting light is not required on a lifefloat with a capacity of 24 persons or less.

(5) Each marine evacuation system must be approved under approval series 160.175.

(6) Lifeboats may be substituted for liferafts. If lifeboats are installed on an OSV, their installation and arrangement must meet the applicable requirements of subchapter W of this chapter.

(b) Except as provided in paragraph (c) of this section, OSVs must carry one or more liferafts with an aggregate capacity that will accommodate the total number of persons on board. The liferafts must be—

(1) Stowed in a position providing for easy side-to-side transfer at a single open deck level; or

(2) Additional liferafts must be provided to bring the total capacity available on each side to at least 100 percent of the total number of persons on board. If additional liferafts are provided and the rescue boat required under § 133.135 is also a lifeboat, it may be included in the aggregate capacity requirement.

(c) Each OSV operating in the Gulf of Mexico, as an alternative to the requirements of paragraph (b) of this section, may carry a sufficient number of inflatable buoyant apparatus or a sufficient number of lifefloats, having an aggregate capacity that, together with any lifeboats, rescue boats, and liferafts, will accommodate the total number of persons on board.

#### § 133.110 Survival craft muster and embarkation arrangements.

(a) Each OSV must have muster stations that—

(1) Are near the embarkation stations, unless the muster station is the embarkation station;

(2) Permit ready access for the offshore workers to the embarkation

station, unless the muster station is the embarkation station; and

(3) Have sufficient room to marshal and instruct the offshore workers.

(b) Each muster station must have sufficient space to accommodate all persons assigned to muster at that station. One or more muster stations must be close to each embarkation station.

(c) Each muster station and embarkation station must be readily accessible to accommodation and work areas.

(d) Each muster station and embarkation station must be adequately illuminated by lighting supplied from the emergency source of electrical power.

(e) Each davit-launched survival craft muster station and embarkation station must be arranged to enable stretcher cases to be placed in the survival craft.

(f) Each launching station or each two adjacent launching stations with an embarkation position more than 3 meters (10 feet) above the waterline in the lightest seagoing condition, must have an embarkation ladder as follows:

(1) Each embarkation ladder must be approved under approval series 160.117 or approval series 160.017.

(2) Each embarkation 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 OSV listed not less than 15 degrees either way.

(3) Each embarkation ladder may be replaced by a device approved to provide safe and rapid access to survival craft in the water, if the OCMI permits the device, provided that there is at least one embarkation ladder on each side of the OSV.

(g) 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, under § 133.130, the liferaft is transferred before launching.

(h) If a davit-launched survival craft is embarked over the edge of the deck, the craft must be provided with a means for bringing it against the side of the OSV and holding it alongside the OSV to allow persons to safely embark.

(i) If a davit-launched survival craft or rescue boat is not intended to be moved to the stowed position with persons on board, the craft must be provided with a means for bringing it against the side of the OSV and holding it alongside the OSV to allow persons to safely disembark after a drill.

#### § 133.120 Launching stations.

(a) Each launching station must be positioned to ensure safe launching with clearance from—

(1) The propeller; and

(2) The steeply overhanging portions of the hull.

(b) Each survival craft be launched down the straight side of the OSV.

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

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

(2) Have a launching appliance approved as being of sufficient strength for forward installation.

#### § 133.130 Stowage of survival craft.

(a) *General.* Each survival craft must be stowed as follows:

(1) Each survival craft must be as close to the accommodation and service spaces as possible.

(2) Each survival craft must be 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.

(3) Each survival craft must be as near the water surface as is safe and practicable.

(4) Other than liferafts intended for throw-overboard launching, each survival craft must be not less than 2 meters above the waterline with the OSV—

(i) In the fully loaded condition;

(ii) Under unfavorable conditions of trim; and

(iii) Listed up to 20 degrees either way, or to the angle where the OSV's weatherdeck edge becomes submerged, whichever is less.

(5) Each survival craft must be sufficiently ready for use so that two crew members can complete preparations for embarkation and launching in less than 5 minutes.

(6) Each survival craft must be fully equipped as required under this part.

(7) Each survival craft must be in a secure and sheltered position and protected from damage by fire and explosion, as far as practicable.

(8) Each survival craft must not require lifting from its stowed position in order to launch, except that—

(i) A davit-launched liferaft may be lifted by a manually powered winch from its stowed position to its embarkation position; or

(ii) A survival craft that weights 185 kilograms (407.8 pounds) or less, may require lifting of not more than 300 millimeters (1 foot).

(b) *Additional liferaft stowage requirements.* In addition to meeting the requirements of paragraph (a) of this section, each liferaft must be stowed as follows:

(1) Each liferaft must be stowed to permit manual release from its securing arrangements.

(2) Each liferaft 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 container. Each liferaft without an indicated maximum stowage height must be stowed not more than 18 meters (59 feet) above the waterline in the OSV's lightest seagoing condition.

(3) Each liferaft must be arranged to permit it to drop into the water from the deck on which it is stowed. A liferaft stowage arrangement meets this requirement if it—

- (i) Is outboard of the rail or bulwark;
- (ii) Is on stanchions or on a platform adjacent to the rail or bulwark; or
- (iii) Has a gate or other suitable opening to allow the liferaft to be pushed directly overboard and—

(A) Each gate or opening must be large enough to allow the liferaft to be pushed overboard; and

(B) If the liferaft is intended to be available for use on either side of the OSV, a gate or opening must be provided on each side.

(4) 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—

(i) Within the limits of trim and list and list specified in paragraph (a)(4)(iii) of this section;

(ii) By OSV motion; or

(iii) By power failure.

(5) 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 water during and after inflation and launching of the contained liferaft.

(6) Each liferaft must have a painter system providing a connection between the OSV and the liferaft.

(7) Each liferaft or group of liferafts must be arranged for float-free launching. The arrangement must ensure that the liferaft or liferafts when released and inflated, are not dragged under by the sinking OSV. A hydrostatic release unit used in a float-free arrangement must be approved under approval series 160.162.

(c) *Additional lifefloat stowage requirements.* Each lifefloat must be capable of float-free launching and be arranged as follows:

(1) Lifefloats must be secured to the OSV by—

(i) A hydrostatic release unit approved under approval series 160.062 or 160.162 and that is appropriate for the size and number of the lifefloats attached to them; or

(ii) Lashings that can be easily slipped.

(2) A painter must be secured to the lifefloat by—

(i) The attachment fitting provided by the manufacturer; or

(ii) A wire or line that encircles the body of the lifefloat and will not slip off, and meets the requirements of § 133.105(a)(4)(iii).

(3) If lifefloats are arranged in groups with each group secured by a single painter,—

(i) The combined weight of each group must not exceed 185 kilograms (407.8 pounds);

(ii) Each lifefloat must be individually attached to the group's single painter by its own painter which must be long enough to allow floating without contact with any other lifefloat in the group;

(iii) The strength of the float-free link and the strength of the group's single painter must be appropriate for the combined capacity of the group of lifefloats;

(iv) The group of lifefloats must not be stowed in more than four tiers. When stowed in tiers, the separate units must be kept apart by spacers; and

(v) The group of lifefloats must be stowed to prevent shifting with easily detached lashings.

#### § 133.135 Rescue boats.

(a) Each OSV must carry at least one rescue boat. Each rescue boat must be approved under approval series 160.156 and equipped as specified in table 133.175 of this part.

(b) Offshore supply vessels, as an alternative to the requirement in paragraph (a) of this section, may carry a motor-propelled workboat or a launch if the workboat or launch must meet the embarkation, launching, and recovery arrangement requirements in § 133.160(a), (c), (d), (e), and (f).

(c) A rescue boat is not required for a vessel operating on the continental shelf of the United States, if—

(1) The OCMI determines the vessel is arranged to allow a helpless person to be recovered from the water;

(2) The 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.

#### § 133.140 Stowage of rescue boats.

(a) Rescue boats must be stowed as follows:

(1) Each rescue boat must be ready for launching in not more than 5 minutes.

(2) Each rescue boat must be in a position suitable for launching and recovery.

(3) Each rescue boat must be stowed 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.

(b) Each rescue boat must be provided a means for recharging the rescue boat batteries from the OSV's power supply at a supply voltage not exceeding 50 volts.

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

#### § 133.145 Marine evacuation system launching arrangements.

(a) *Arrangements.* Each marine evacuation system must have the following arrangements:

(1) Each marine evacuation system must be capable of being deployed by one person.

(2) Each marine evacuation system must enable the total number of persons for which it is designed, to be transferred from the OSV into the inflated liferafts within a period of 10 minutes from the time an abandon-ship signal is given.

(3) Each marine evacuation system must be arranged so that liferafts may be securely attached to the platform and released from the platform by a person either in the liferaft or on the platform.

(4) Each marine evacuation system must be capable of being deployed from the OSV under unfavorable conditions of trim of up to 10 degrees either way and of list of up to 20 degrees either way.

(5) If the marine evacuation system has an inclined slide, the angle of the slide from horizontal must be within a range of 30 to 35 degrees when the OSV is upright and in the lightest seagoing condition.

(6) Each marine evacuation system platform must be capable of being restrained by a bowing line or other positioning system that is designed to deploy automatically, and if necessary, be capable of being adjusted to the position required for evacuation.

(b) *Stowage.* Each marine evacuation system must be stowed as follows:

(1) There must not be any openings between the marine evacuation system's embarkation station and the OSV's side at the OSV's waterline in the lightest seagoing condition.

(2) The marine evacuation system's launching positions must be arranged, as far as practicable, to be straight down the OSV's side and safely clear the propeller and any steeply overhanging positions of the hull.

(3) The marine evacuation system must be protected from any projections of the OSV's structure or equipment.

(4) The marine evacuation system's passage and platform, when deployed; its stowage container; and its

operational arrangement must not interfere with the operation of any other lifesaving appliance at any other launching station.

(5) Where appropriate, the marine evacuation system's stowage area must be protected from damage by heavy seas.

(c) *Stowage of associated liferafts.* Inflatable liferafts used in conjunction with the marine evacuation system must be stowed as follows:

(1) Each inflatable liferaft used in conjunction with the marine evacuation system must be close to the system container, but capable of dropping clear of the deployed chute and boarding platform.

(2) Each inflatable liferaft used in conjunction with the marine evacuation system must be capable of individual release from its stowage rack.

(3) Each inflatable liferaft used in conjunction with the marine evacuation system must be stowed in accordance with § 133.130.

(4) Each inflatable liferaft used in conjunction with the marine evacuation system must be provided with preconnected or easily connected retrieving lines to the platform.

**§ 133.150 Survival craft launching and recovery arrangements: general.**

(a) All survival craft required for abandonment by the total number of persons on board must be capable of being launched with their full complement of persons and equipment within 10 minutes from the time the abandon-ship signal is given.

(b) Each launching appliance for a davit-launched liferaft must be approved under approval series 160.163, with an automatic disengaging apparatus approved under approval series 160.170.

(c) Unless expressly provided otherwise, each survival craft must be provided launching appliances or marine evacuation systems, except—

(1) Those survival craft that can be boarded from a position on deck less than 4.5 meters (14.75 feet) above the waterline in the lightest seagoing condition and that have a mass of not more than 185 kilograms (407 pounds);

(2) Those survival craft that can be boarded from a position on deck less than 4.5 meters (14.75 feet) above the waterline in the lightest seagoing condition and that are stowed for launching directly from the stowed position, under unfavorable conditions of trim of 10 degrees and list of 20 degrees either way;

(3) Those survival craft that are carried in excess of the survival craft for 200 percent of the total number of

persons on board the OSV, and that have a mass of not more than 185 kilograms (407 pounds);

(4) Those survival craft carried in excess of the survival craft for 200 percent of the total number of persons on board the OSV, and are stowed for launching directly from the stowed position under unfavorable conditions of trim of 10 degrees and list of 20 degrees either way;

(5) Those survival craft that are provided for use in conjunction with a marine evacuation system, and stowed for launching directly from the stowed position under unfavorable conditions of trim of 10 degrees and list of 20 degrees either way; or

(6) Liferafts installed on lifeboats.

(d) Each launching appliance must be arranged so that the fully equipped survival craft the launching appliance serves can be safely launched against unfavorable conditions of trim of up to 10 degrees either way and of list of up to 20 degrees either way,—

(1) When the survival craft is loaded with its full complement of persons; and

(2) When not more than the required operating crew is on board.

(e) A launching appliance must not depend on any means other than gravity or stored mechanical power, independent of the OSV's power supplies, to launch the survival craft the launching appliance serves, in the fully loaded and equipped condition, and also in the light condition.

(f) Each launching appliance's structural attachment to the OSV must be designed to be at least 4.5 times—

(1) 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 as required under paragraph (b) of this section; and

(2) The ultimate strength of the construction material.

(g) Each launching appliance must be arranged so that—

(1) All parts requiring regular maintenance by the OSV's crew are readily accessible and easily maintained;

(2) The launching appliance remains effective under conditions of icing;

(3) The same type of release mechanism is used for each similar survival craft carried on board the OSV;

(4) The preparation and handling of each survival craft at any one launching station does not interfere with the prompt preparation and handling of any other survival craft at any other station;

(5) The persons on board the OSV can safely and rapidly board the survival craft;

(6) Each davit-launched liferaft can be boarded by its full complement of

persons within 3 minutes from the time the instruction to board is given: and

(7) During preparation and launching, the survival craft, its launching appliance, and the area of water into which it is to be launched is illuminated by lighting supplied from the emergency source of electrical power.

(h) Each launching mechanism must be arranged so it may be actuated by one person, both from a position on the OSV's deck, and 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 water onto survival craft during abandonment.

**§ 133.153 Survival craft launching and recovery arrangement using falls and a winch.**

Survival craft launching and recovery arrangements, in addition to meeting the requirements in § 133.150, must meet the following requirements:

(a) Each fall wire must be of rotation-resistant and corrosion-resistant steel wire rope.

(b) 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.

(c) Each fall must be long enough for the survival craft to reach the water with the OSV in its lightest seagoing condition, under unfavorable conditions of trim and with the OSV listed not less than 20 degrees either way.

(d) Each unguarded fall must not pass near any operating position of the winch, such as hand cranks, pay-out wheels, and brake levers.

(e) Each winch drum must be arranged so the fall wire winds onto the drum in a level wrap. A multiple drum winch must be arranged so that the falls wind off at the same rate when lowering, and onto the drums at the same rate when hoisting.

(f) Each fall, where exposed to damage or fouling, must have guards or equivalent protection. Each fall that leads along a deck must be covered with a guard that is not more than 300 millimeters (1 foot) above the deck.

(g) The lowering speed for a fully loaded survival craft must be not less than that obtained from the following formula:

(1)  $S = 0.4 + (0.02 H)$ , where S is the speed of lowering in meters per second, and H is the height in meters from the davit head to the waterline at the lightest seagoing condition.

(2)  $S=79+(1.2 H)$ , where S is the speed of lowering in feet per minute, and H is the height in feet.

(h) The lowering speed for a survival craft loaded with all of its equipment must be not less than 70 percent of the speed required under paragraph (g) of this section.

(i) The lowering speed for a fully loaded survival craft must be not more than 1.3 meters per second (256 feet per minute).

(j) If a survival craft is recovered by electric power, the electrical installation, including the electric power-operated boat winch, must meet the requirements in part 129 of this chapter. If a survival craft is recovered by any means of power, including a portable power source, safety devices must be provided which automatically cut off the power before the davit arms or falls reach the stops in order to avoid overstressing the falls or davits, unless the motor is designed to prevent such overstressing.

(k) Each launching appliance must be fitted with brakes that meet the following requirements:

(1) The brakes must be capable of stopping the descent of the survival craft or rescue boat and holding it securely when loaded with its full complement of persons and equipment.

(2) The brake pads must, where necessary, be protected from water and oil.

(3) Manual brakes must be arranged so that the brake is always applied unless the operator, or a mechanism activated by the operator, holds the brake control in the off position.

**§ 133.160 Rescue boat embarkation, launching and recovery arrangements.**

(a) 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. 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.

(b) Each rescue boat must be capable of being launched with the OSV making headway of 5 knots in calm water. A painter may be used to meet this requirement.

(c) Each rescue boat embarkation and launching arrangement must permit the rescue boat to be boarded and launched in the shortest possible time.

(d) Rapid recovery of the rescue boat must be possible when loaded with its full complement of persons and equipment.

(e) Each rescue boat launching appliance must be fitted with a powered winch motor.

(f) 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 meters per second (59 feet per minute).

**§ 133.170 Line-throwing appliance.**

(a) *General.* Each OSV must have a line-throwing appliance that is approved under approval series 160.031 or 160.040.

(b) *Stowage.* The line-throwing appliance and its equipment must be readily accessible for use.

(c) *Additional equipment.* Each OSV must carry the following equipment for the line-throwing appliance:

(1) The equipment on the list provided by the manufacturer with the approved appliance.

(2) An auxiliary line that—

(i) For an appliance approved under approval series 160.040, is at least 450 meters (1,500 feet) long;

(ii) For an appliance approved under approval series 160.031, is at least 150 meters (500 feet) long;

(iii) Has a breaking strength of at least 40 kiloNewtons (9,000 pounds-force); and

(iv) Is, if synthetic, a dark color or certified by the manufacturer to be resistant to deterioration from ultraviolet light.

**§ 133.175 Survival craft and rescue boat equipment.**

(a) All rescue boat equipment must be as follows:

(1) The equipment must be secured within the boat by lashings, storage in lockers or compartments, storage in brackets or similar mounting arrangements, or other suitable means.

(2) The equipment must be secured in such a manner as not to interfere with any abandonment procedures or reduce seating capacity.

(3) The equipment must be as small and of as little mass as possible.

(4) The equipment must be packed in a suitable and compact form.

(5) The equipment should be stowed so the items do not—

(i) Reduce the seating capacity;

(ii) Adversely affect the seaworthiness of the survival craft or rescue boat; or

(iii) Overload the launching appliance.

(b) Each rigid liferaft and rescue boat, unless otherwise stated in this paragraph, must carry the equipment specified for it in table 133.175 of this section. Each item in the table has the same description as in § 199.175 of this chapter.

TABLE 133.175.—SURVIVAL CRAFT EQUIPMENT

Item No.	Item	Oceans		Coastwise	
		Rigid life-raft (SOLAS A Pack)	Rescue boat	Rigid life-raft (SOLAS B Pack)	Rescue boat
1	Bailer <sup>1</sup> .....	1	1	1	1
3	Boathook .....		1		1
4	Bucket <sup>2</sup> .....		1		1
5	Can opener .....	3			
6	Compass .....		1		1
8	Drinking cup .....	1			
9	Fire extinguisher .....		1		1
10	First-aid kit .....	1	1	1	1
11	Fishing kit .....	1			
12	Flashlight .....	1	1	1	1
14	Heaving line .....	1	2	1	2
15	Instruction card .....	1		1	
17	Knife <sup>1,3</sup> .....	1	1	1	1
18	Ladder .....		1		1
19	Mirror, signalling .....	1		1	

TABLE 133.175.—SURVIVAL CRAFT EQUIPMENT—Continued

Item No.	Item	Oceans		Coastwise	
		Rigid life-raft (SOLAS A Pack)	Rescue boat	Rigid life-raft (SOLAS B Pack)	Rescue boat
20	Oars, units <sup>4</sup> .....		1		1
	Paddles .....	2		2	
21	Painter .....	1	1	1	1
22	Provisions (units per person) .....	1			
23	Pump <sup>5</sup> .....		1		1
24	Radar reflector .....	1	1	1	1
26	Repair kit <sup>5</sup> .....		1		1
27	Sea anchor .....	2	1	2	1
28	Searchlight .....		1		1
29	Seasickness kit (units per person) .....	1		1	
30	Signal, smoke .....	2		1	
31	Signal, hand flare .....	6		6	
32	Signal, parachute flare .....	4		4	
34	Sponge <sup>5</sup> .....	2	2	2	2
35	Survival instructions .....	1		1	
36	Table of lifesaving signals .....	1		1	
37	Thermal protective aids (percent of persons) <sup>6</sup> .....	10%	10%	10%	10%
39	Towline .....		1		1
40	Water (liters per person) .....	1.5		1	
41	Whistle .....	1	1	1	1

Notes:

- <sup>1</sup> Each liferaft equipped for 13 persons or more must carry two of these items.
- <sup>2</sup> Not required for inflated or rigid-inflated rescue boats.
- <sup>3</sup> A hatchet counts towards this requirement in rigid rescue boats.
- <sup>4</sup> Oars are not required on a free-fall lifeboat; a unit of oars means the number of oars specified by the boat manufacturer.
- <sup>5</sup> Not required for a rigid rescue boat.
- <sup>6</sup> Sufficient thermal protective aids are required for at least 10% of the persons the survival craft is equipped to carry, but not less than two.

**SUBCHAPTER R—NAUTICAL SCHOOLS**

**PART 167—PUBLIC NAUTICAL SCHOOL SHIPS**

103. The authority citation for part 167 continues to read as follows:

Authority: 46 U.S.C. 2103, 3306, 8105; 46 U.S.C. App. 1295g; 49 CFR 1.46.

104. Section 167.05–25 is revised to read as follows:

**§ 167.05–25 Nautical school ship.**

The term *nautical school ship* means a vessel operated by or in connection with a nautical school or an educational institution under Section 13 of the Coast Guard Authorization Act of 1986.

105. Section 167.05–35 is added to read as follows:

**§ 167.05–35 Public nautical school.**

The term *public nautical school* means any school or branch thereof operated by any State or political subdivision thereof or a school operated by the United States Maritime Administration that offers instruction for the primary purpose of training for service in the merchant marine.

106. Section 167.15–28 is added to read as follows:

**§ 167.15–28 Inspection of lifesaving appliances and arrangements.**

The inspection of lifesaving appliances and arrangements must be in accordance with the requirements for special purpose vessels in subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

107. Section 167.35–1 is revised to read as follows:

**§ 167.35–1 General.**

Lifesaving appliances and arrangements on nautical school ships must be in accordance with the requirements for special purpose vessels in subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

§§ 167.35–2, 167.35–3, 167.35–5, 167.35–10, 167.35–15, 167.35–20, 167.35–25, 167.35–30, 167.35–35, 167.35–40, 167.35–45, 167.35–50, 167.35–60, 167.35–65, 167.35–70, 167.35–72, 167.35–75, 167.35–80, 167.35–85, 167.35–90 [Removed]

108. Sections 167.35–2, 167.35–3, 167.35–5, 167.35–10, 167.35–15, 167.35–20, 167.35–25, 167.35–30, 167.35–35, 167.35–40, 167.35–45, 167.35–50, 167.35–60, 167.35–65, 167.35–70, 167.35–72, 167.35–75, 167.35–80, 167.35–85, and 167.35–90 are removed.

109. In § 167.55–5, the section heading and paragraph (j) are revised

and the note at the end of the section is removed to read as follows:

**§ 167.55–5 Marking of fire and emergency equipment.**

\* \* \* \* \*

(j) *Lifesaving appliances.* Each lifesaving appliance must be marked as required under subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

\* \* \* \* \*

110. Section 167.65–1 is revised to read as follows:

**§ 167.65–1 Emergency training, musters, and drills.**

Onboard training, musters, and drills must be in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**§ 167.65–55 [Removed]**

111. Section 167.65–55 is removed.

**PART 168—CIVILIAN NAUTICAL SCHOOL VESSELS**

112. The authority citation for part 168 continues to read as follows:

Authority: 46 U.S.C. 3306; 46 U.S.C. App. 1295g; 49 CFR 1.46.

113. Section 168.05–5 is revised to read as follows:



**§ 168.05-5 Application of passenger vessel inspection regulations.**

Where the requirements are not covered specifically in this part, all the regulations applying to passenger vessels in subchapters E (Load Lines), F (Marine Engineering), H (Passenger Vessels), J (Electrical Engineering), K (Small Passenger Vessels Carrying More Than 150 Passengers Or With Overnight Accommodations For More Than 49 Passengers), P (Manning), Q (Specifications), T (Small Passenger Vessels), and W (Lifesaving Appliances and Arrangements) of this chapter are hereby made applicable to all vessels or other floating equipment used by or in connection with any civilian nautical school, whether such vessels or other floating equipment are being navigated or not, except vessels of the Navy or Coast Guard.

114. Section 168.10-1 is revised to read as follows:

**§ 168.10-1 Nautical school vessels.**

The term *nautical school vessel* means a vessel operated by or in connection with a nautical school or an educational institution under Section 13 of the Coast Guard Authorization Act of 1986.

115. Section 168.10-5 is revised to read as follows:

**§ 168.10-5 Civilian nautical school.**

The term *civilian nautical school* means any school or branch thereof operated and conducted in the United States, except State nautical schools and schools operated by the United States or any agency thereof, which offers instruction for the primary purpose of training for service in the merchant marine.

**SUBCHAPTER U—OCEANOGRAPHIC RESEARCH VESSELS**

**PART 188—GENERAL PROVISIONS**

116. The authority citation for part 188 continues to read as follows:

Authority: 46 U.S.C. 2113, 3306; 49 U.S.C. 5103, 5106; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

117. In § 188.05-10, paragraph (d) is revised to read as follows:

**§ 188.05-10 Application to vessels on an international voyage.**

\* \* \* \* \*

(d) The Commandant or his authorized representative may exempt any vessel from the construction requirements of this subchapter if the vessel does not proceed more than 20 nautical miles from the nearest land in the course of its voyage.

**§ 188.10-52 [Removed]**

118. Section 188.10-52 is removed.

119. Section 188.10-53 is revised to read as follows:

**§ 188.10-53 Oceanographic research vessel.**

The term *oceanographic research vessel* means a vessel that the Secretary finds is being employed only in instruction in oceanography or limnology, or both, or only in oceanographic or limnological research, including those studies about the sea such as seismic, gravity meter, and magnetic exploration and other marine geophysical or geological surveys, atmospheric research, and biological research.

120. Subpart 188.27 is added to read as follows:

**Subpart 188.27—Lifesaving Appliances and Arrangements**

Sec.  
188.27-1 Lifesaving appliances and arrangements.

**Subpart 188.27—Lifesaving Appliances and Arrangements**

**§ 188.27-1 Lifesaving appliances and arrangements.**

All lifesaving appliances and arrangements shall be in accordance with the requirements for special purpose vessels in subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**PART 189—INSPECTION AND CERTIFICATION**

121. The authority citation for part 189 continues to read as follows:

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 2113, 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; 49 CFR 1.46.

122. Section 189.15-1 is revised to read as follows:

**§ 189.15-1 Standards in inspection of hulls, boilers, and machinery.**

In the inspection of hulls, boilers, and machinery of vessels, the standards established by the American Bureau of Shipping, see part 188, subpart 188.35 of this chapter, respecting material and construction of hulls, boilers, and machinery, and certificate of classification referring thereto, except where otherwise provided for by the rules and regulations in this subchapter, subchapter E (Load Lines), subchapter F (Marine Engineering), subchapter J (Electrical Engineering), and subchapter W (Lifesaving Appliances and Arrangements) of this chapter shall be accepted as standard by the inspectors.

123. In § 189.20-20, paragraph (a) is redesignated as introductory text, and paragraphs (a)(1), (2), (3), and (4) are redesignated as paragraphs (a) through (d) and newly redesignated paragraph (a) is revised to read as follows:

**§ 189.20-20 Specific tests and inspections.**

\* \* \* \* \*

(a) For inspection procedures of lifesaving appliances and arrangements, see subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

\* \* \* \* \*

124. Section 189.25-15 is revised to read as follows:

**§ 189.25-15 Lifesaving equipment.**

For inspection procedures of lifesaving appliances and arrangements, see subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**PART 192—[REMOVED]**

125. Part 192 is removed.

**PART 195—VESSEL CONTROL AND MISCELLANEOUS SYSTEMS AND EQUIPMENT**

126. The authority citation for part 195 continues to read as follows:

Authority: 46 U.S.C. 2113, 3306; 49 U.S.C. App. 1804; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

127. Subpart 195.06 is added to read as follows:

**Subpart 195.06—Lifesaving Appliances and Arrangements**

Sec.  
195.06-1 Lifesaving appliances and arrangements.

**Subpart 195.06—Lifesaving Appliances and Arrangements**

**§ 195.06-1 Lifesaving appliances and arrangements.**

All lifesaving appliances and arrangements shall be in accordance with the requirements for special purpose vessels in subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**PART 196—OPERATIONS**

128. The authority citation for part 196 is revised to read as follows:

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 2213, 3306, 5115, 6101; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

129. Section 196.13-1 is revised to read as follows:

**§ 196.13–1 Muster lists, emergency signals, and manning.**

The requirements for muster lists, emergency signals, and manning must be in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**§§ 196.13–5, 196–13.10, 196.13–15, 196.13–20 [Removed]**

130. Sections 196.13–5 196.13–10, 196.13–15 and 196.13–20 are removed.

**Subpart 196.14—[Removed]**

131. Subpart 196.14 is removed.

**§ 196.15–25 [Removed]**

132. Section 196.15–25 is removed.

133. Section 196.15–35 is revised to read as follows:

**§ 196.15–35 Emergency training, musters, and drills.**

Onboard training, musters, and drills must be in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**§§ 196.15–37, 196.15–40, 196.15–45, 196.15–50, 196.15–65, 196.15–70 [Removed]**

134. Sections 196.15–37, 196.15–40, 196.15–45, 196.15–50, 196.15–65, and 196.15–70 are removed.

135. In § 196.35–5, paragraphs (a)(6) and (a)(8) are removed, paragraph (a) is redesignated as introductory text, and paragraphs (a)(1), (2), (3), (4), (5), (7), (9), (10), (11), (12), and (13) are redesignated as paragraphs (a) through (k) and newly designated paragraph (a) is revised to read as follows:

**§ 196.35–5 Actions required to be logged.**

\* \* \* \* \*

(a) Onboard training, musters, and drills: held in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

\* \* \* \* \*

136. Section 196.37–37 is revised to read as follows:

**§ 196.37–37 Markings for lifesaving appliances, instructions to passengers, and stowage locations.**

Lifesaving appliances, instructions to passengers, and stowage locations must be marked in accordance with subchapter W (Lifesaving Appliances and Arrangements) of this chapter.

**§§ 196.37–40, 196.37–43, 196.37–49 [Removed]**

137. Sections 196.37–40, 196.37–43, and 196.37–49 are removed.

**Subpart 196.39—[Removed]**

138. Subpart 196.39 is removed.

**Subpart 196.90—[Removed]**

139. Subpart 196.90 is removed.

140. Subchapter W, consisting of part 199, is added to read as follows:

**SUBCHAPTER W—LIFESAVING APPLIANCES AND ARRANGEMENTS****PART 199—LIFESAVING SYSTEMS FOR CERTAIN INSPECTED VESSELS****Subpart A—General**

Sec.

- 199.01 Purpose.
- 199.03 Relationship to international standards.
- 199.05 Incorporation by reference.
- 199.07 Additional equipment and requirements.
- 199.09 Equivalents.
- 199.10 Applicability.
- 199.20 Exemptions.
- 199.30 Definitions.
- 199.40 Evaluation, testing and approval of lifesaving appliances and arrangements.
- 199.45 Tests and inspections of lifesaving equipment and arrangements.

**Subpart B—Requirements for All Vessels**

- 199.60 Communications.
- 199.70 Personal lifesaving appliances.
- 199.80 Muster list and emergency instructions.
- 199.90 Operating instructions.
- 199.100 Manning of survival craft and supervision.
- 199.110 Survival craft muster and embarkation arrangements.
- 199.120 Launching stations.
- 199.130 Stowage of survival craft.
- 199.140 Stowage of rescue boats.
- 199.145 Marine evacuation system launching arrangements.
- 199.150 Survival craft launching and recovery arrangements; general.
- 199.153 Survival craft launching and recovery arrangements using falls and a winch.
- 199.155 Lifeboat launching and recovery arrangements.
- 199.157 Free-fall lifeboat launching and recovery arrangements.
- 199.160 Rescue boat embarkation, launching and recovery arrangements.
- 199.170 Line-throwing appliance.
- 199.175 Survival craft and rescue boat equipment.
- 199.176 Markings on lifesaving appliances.
- 199.178 Marking of stowage locations.
- 199.180 Training and drills.
- 199.190 Operational readiness, maintenance and inspection of lifesaving equipment.

**Subpart C—Additional Requirements for Passenger Vessels**

- 199.200 General.
- 199.201 Survival craft.
- 199.202 Rescue boats.
- 199.203 Marshalling of liferafts.
- 199.211 Lifebuoys.
- 199.212 Lifejackets.
- 199.214 Immersion suits and thermal protective aids.
- 199.217 Muster list and emergency instructions.
- 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 Drills.

**Subpart D—Additional Requirements for Cargo Vessels**

- 199.260 General.
- 199.261 Survival craft.
- 199.262 Rescue boats.
- 199.271 Lifebuoys.
- 199.273 Immersion suits.
- 199.280 Survival craft embarkation and launching arrangements.
- 199.290 Stowage of survival craft.

**Subpart E—Additional Requirements for Vessels Not Subject to SOLAS**

- 199.500 General.
- 199.510 EPIRB requirements.
- 199.520 Lifeboat requirements.

**Subpart F—Exemptions and Alternatives for Vessels Not Subject to SOLAS**

- 199.600 General.
  - 199.610 Exemptions for vessels in specified services.
  - 199.620 Alternatives for all vessels in a specified service.
  - 199.630 Alternatives for passenger vessels in a specified service.
  - 199.640 Alternatives for cargo vessels in a specified service.
- Authority: 46 U.S.C. 3306, 3703; 46 CFR 1.46.

**Subpart A—General****§ 199.01 Purpose.**

(a) This part sets out the requirements for lifesaving appliances and arrangements for all inspected U.S. vessels except for—

(1) Offshore supply vessels, which are covered by subchapter L of this chapter;

(2) Mobile Offshore Drilling Units (MODU), which are covered by subchapter I–A of this chapter;

(3) Small passenger vessels, which are covered by subchapters K and T of this chapter; and

(4) Sailing school vessels, which are covered by part 169 of this chapter.

(b) This subpart and subparts B, C, and D of this part set out the requirements for vessels on international voyages that are subject to the International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1978, as amended (SOLAS).

(c) Subparts E and F of this part set out additional requirements, alternatives, and exemptions for vessels that are not subject to SOLAS.

**§ 199.03 Relationship to international standards.**

(a) This subpart and subparts B, C, and D of this part are based on Chapter III, SOLAS. Section numbers in this subpart and subparts B, C, and D of this part are generally related to the

regulation numbers in Chapter III, SOLAS, but paragraph designations are not related to the numbering in Chapter III, SOLAS. To find the corresponding Chapter III, SOLAS regulation for this subpart and subparts B, C, and D of this part, beginning with § 199.10, divide the section number following the decimal point by 10.

(b) For purposes of this part, any vessel carrying a valid Passenger Ship Safety Certificate supplemented by a Record of Equipment, or a valid Cargo Ship Safety Equipment Certificate supplemented by a Record of Equipment, is considered to have met the requirements of this part if the equipment meets § 199.40 and if, in addition to the requirements of SOLAS Chapter III, the vessel meets the following requirements:

(1) Each new lifeboat and launching appliance on a tank vessel may be of aluminum construction only if its stowage location is protected with a water spray system in accordance with § 199.290(b).

(2) Each child-size lifejacket and immersion suit must be appropriately marked and stowed separately from adult or extended-size devices as required in § 199.70(b)(2).

(3) Each lifejacket and immersion suit must be marked with the vessel's name in accordance with §§ 199.70 (b)(3) and (c)(3).

(4) Inflatable lifejackets, if carried, must be of the same or similar design as required by § 199.70(b).

(5) Containers for lifejackets, immersions suits, and anti-exposure suits must be marked as specified in § 199.70(d).

(6) Instructions for passengers must include illustrated instructions on the method of donning lifejackets as required in § 199.80(c)(5).

(7) Each liferaft must be arranged to permit it to drop into the water from the deck on which it is stowed as required in § 199.130(c)(3).

(8) Lifeboats and rescue boats must be arranged to allow safe disembarkation onto the vessel after a drill in accordance with § 199.110(h).

(9) The requirements for guarding of falls in §§ 199.153 (d) and (f) must be met.

(10) The winch drum requirements described in § 199.153(e) must be met for all survival craft winches, not just multiple drum winches.

(11) The maximum lowering speed requirements for launching arrangements using falls and a winch in §§ 199.153 (i) and (j) must be met.

(12) An auxiliary line must be kept with each line-throwing appliance in accordance with § 199.170(c)(2).

(13) Immersion suits must be carried on all cargo vessels except those operating between the 32 degrees north and 32 degrees south latitude in accordance with § 199.273.

(14) Vessels carrying immersion suits must conduct drills in accordance with §§ 199.180 (d)(11) and (d)(12).

(c) The certificates in paragraph (b) of this section will be accepted as proof of compliance with the requirements in this part unless the Officer in Charge, Marine Inspection (OCMI), determines that—

(1) The condition of the vessel or of its equipment does not correspond substantially with the particulars of its certificates; or

(2) The vessel and its equipment have not been maintained in conformance with the provisions of the regulations in this part.

**§ 199.05 Incorporation by reference.**

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in paragraph (b) of this section, the Coast Guard must publish notice of change in the Federal Register; and the material must be available to the public. All approved material is available for inspection at the Office of the Federal Register, 800 North Capitol Street NW., suite 700, Washington, DC, and at the U.S. Coast Guard, Lifesaving and Fire Safety Branch (G-MSE-4), 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 as follows:

American Society for Testing and Materials (ASTM)

1916 Race Street, Philadelphia, PA 1903	
ASTM D93-94, Flash Point by Pennsky-Martens Closed Cup Tester .....	199.261; 199.290
ASTM F1003, Standard Specification for Searchlights on Motor Lifeboats, 1986 (Reapproved 1992).	199.175
ASTM F1014, Standard Specification for Flashlights on Vessels, 1986 .....	199.175

International Maritime Organization (IMO)

4 Albert Embankment, London, SE1 7SR, England	
MSC Circular 699, Revised Guidelines for Passenger Safety Instructions, 17 July 1995 .....	199.217
Resolution A.520(13), Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Life-saving Appliances and Arrangements, 17 November 1983.	199.40
Resolution A.657(16), Instructions for Action in Survival Craft, 19 November 1989 .....	199.175
Resolution A.658(16), Use and Fitting of Retro-reflective Materials on Life-saving Appliances, 20 November 1989.	199.70; 199.176
Resolution A.760(18), Symbols Related to Life-saving Appliances and Arrangements, 17 November 1993.	199.70; 199.90
Resolution MSC.4(48), International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (IBC Code), 1994.	199.30; 199.280
Resolution MSC.5(48), International Code for the Construction and Equipment of Ships carrying Liquefied Gases in Bulk, (IGC Code), 1993.	199.30; 199.280

**§ 199.07 Additional equipment and requirements.**

The OCMI may require a vessel to carry specialized or additional lifesaving equipment other than as required in this part if the OCMI determines that the conditions of a voyage present uniquely hazardous

circumstances that are not adequately addressed by existing requirements.

**§ 199.09 Equivalents.**

When this part requires a particular fitting, material, or lifesaving appliance or arrangement, the Commandant (G-MSE) may accept any other fitting, material, or lifesaving appliance or

arrangement that is at least as effective as that required by this part. The Commandant may require engineering evaluations and tests to determine the equivalent effectiveness of the substitute fitting, material, or lifesaving appliance or arrangement.

**§ 199.10 Applicability.**

(a) Unless expressly provided otherwise in this Chapter, this part applies to all inspected U.S. flag vessels.

(b) This part does not apply to nonself-propelled vessels without accommodations or work stations on board, and unless otherwise required by this chapter, does not apply to offshore supply vessels, mobile offshore drilling units, small passenger vessels, and sailing school vessels.

(c) For purposes of the application of this part, a cargo vessel, whenever built, which is converted to a passenger vessel is deemed to be a passenger vessel that is constructed on the date on which the conversion commences.

(d) This subpart and subparts B, C, and D of this part apply to vessels engaged on international voyages, except—

(1) Cargo vessels of less than 500 tons gross tonnage;

(2) Vessels not propelled by mechanical means;

(3) Wooden vessels of primitive build; and

(4) Vessels solely navigating the Great Lakes of North America and the River Saint Lawrence as far east as a straight line drawn from Cap des Rosiers to West Point, Anticosti Island and, on the north side Anticosti Island, the 63rd meridian.

(e) Vessels engaged on international voyages which were constructed before July 1, 1986, must meet the requirements of §§ 199.70(b)(4)(i), 199.80, 199.90, 199.100, 199.180, 199.190 (paragraph (b) applies as much as practicable), 199.214, 199.217, 199.250, 199.261 (b)(2) and (e), and 199.273, and must fit retro-reflective material on all floating appliances, lifejackets and immersion suits. Except for the requirements of §§ 199.261 (b)(2) and (e), vessels may retain the number, type, and arrangement of lifesaving appliances previously required and approved for the vessel, as long as the arrangement or appliance is maintained in good condition to the satisfaction of the OCMI.

(f) For the purposes of this part, the following vessels must meet the requirements for passenger vessels:

(1) Passenger vessels.

(2) Special purpose vessels carrying more than 50 special personnel.

(3) Special purpose vessels carrying not more than 50 special personnel if the vessels meet the structural fire protection requirements in subchapter H of this chapter for passenger vessels of the same size.

(g) For the purposes of this part, the following vessels must meet the requirements for cargo vessels:

(1) Cargo vessels.

(2) Tank vessels.

(3) Special purpose vessels carrying not more than 50 special personnel that do not meet the structural fire protection requirements in subchapter H of this chapter for passenger vessels of the same size.

(h) (1) Passenger vessels on international voyages must meet the requirements of this subpart and subparts B and C of this part.

(2) Cargo vessels on international voyages must meet the requirements of this subpart and subparts B and D of this part.

(3) The provisions for passenger vessels on short international voyages in this subpart and subparts B and C of this part do not apply to special purpose vessels described in paragraphs (f) (2) and (3) of this section.

(i) Vessels not on international voyages and vessels listed in paragraph (d) of this section must meet the requirements of this subpart and subparts B, C, D, and E of this part unless otherwise exempted or permitted by subpart F of this part.

(1) Vessels on other than international voyages and vessels listed in paragraph (d) of this section which were constructed prior to October 1, 1996, must—

(i) By October 1, 1997, meet the requirements of §§ 199.70(b)(4)(i), 199.80, 199.90, 199.100, 199.180, 199.190 (paragraph (b) applies as much as practicable), 199.217, 199.250, 199.273, and 199.510, and fit retro-reflective material on all floating appliances, lifejackets and immersion suits;

(ii) By October 1, 2001, passenger vessels must carry the number and type of survival craft specified in table 199.630 of this part and cargo vessels in oceans and coastwise service must carry the number and type of survival craft specified in § 199.261 (b)(2) and (e);

(iii) By October 1, 2001, passenger vessels must carry the immersion suits and thermal protective aids specified in § 199.214; and

(iv) Except for the requirements in paragraphs (i)(1)(ii) and (i)(1)(iii) of this section, vessels may retain the arrangement of lifeboats, lifeboat davits, winches, inflatable liferafts, liferaft launching equipment, rescue boats, lifefloats, and buoyant apparatus previously required and approved for the vessel, as long as the arrangement or appliance is maintained in good condition to the satisfaction of the OCMI.

(2) This paragraph does not apply to public vessels.

(j) When any lifesaving appliance or arrangement on a vessel subject to this

part is replaced, or when the vessel undergoes repairs, alterations or modifications of a major character involving replacement of, or any addition to, the existing lifesaving appliance or arrangements, each new lifesaving appliance and arrangement must meet the requirements of this part, unless the OCMI determines that the vessel cannot accommodate the new appliance or arrangement, except that—

(1) A survival craft is not required to meet the requirements of this part if it is replaced without replacing its davit and winch; and

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

(k) No extensive repairs or alterations, except in an emergency, may be made to a lifesaving appliance without advance notification to the OCMI. Insofar as possible, each repair or alteration must be made with material and tested in the manner specified in this subchapter and applicable to the new construction requirements in subchapter Q of this chapter. Emergency repairs or alterations must be reported as soon as practicable to the OCMI, where the vessel may call after such repairs are made. Lifeboats, rescue boats, or rigid liferafts may not be reconditioned for use on a vessel other than the one they were originally built for, unless specifically accepted by the OCMI.

**§ 199.20 Exemptions.**

(a) *Vessels engaged on international voyages.* (1) The following types of vessels engaged on international voyages may request an exemption from Commandant (G-MCO) from requirements of this part:

(i) A vessel for which the sheltered nature and conditions of an international voyage would render the application of any specific requirements of this part unreasonable or unnecessary and which in the course of the voyage does not proceed more than 20 miles from the nearest land.

(ii) A vessel embodying features of a novel kind to which the application of any provision of this part would seriously impede research into the development of such features and their incorporation on vessels engaged on international voyages.

(2) A written request for exemption under this section must be submitted to the cognizant OCMI for review and forwarding to Commandant (G-MCO).

(b) *Single voyage exemption from SOLAS requirements.* A vessel that is not normally engaged on international voyages, but which, under exceptional

circumstances, is required to undertake a single international voyage, may be exempted from the applicable requirements in this subpart and subparts B, C, and D of this part by the Commandant (G-MCO). A written request for exemption under this paragraph must be submitted to the cognizant OCMI for review and forwarding to Commandant (G-MCO).

(c) *Exemption Certificates.* When Commandant (G-MCO) grants an exemption under paragraph (a) or (b) of this section, an Exemption Certificate describing the exemption will be issued by the appropriate OCMI. The Exemption Certificate must be carried on board the vessel at all times and must be available to Coast Guard personnel upon request.

(d) *Vessels not engaged on international voyages.* (1) If a District Commander determines that the overall safety of the persons on board a vessel will not be significantly reduced, the District Commander may grant an exemption from compliance with a provision of this part to a specific vessel for a specified geographic area within the boundaries of the Coast Guard District. This exemption may be limited to certain periods of the year.

(2) Requests for exemption under this paragraph must be made in writing to the OCMI for transmission to the district Commander for the area in which the vessel is in service or will be in service.

(3) If the exemption is granted by the District Commander, the OCMI will endorse the vessel's Certificate of Inspection with a statement describing the exemption.

#### § 199.30 Definitions.

The following definitions apply to this part:

*Accommodation* means a cabin, or other covered or enclosed place, intended to be occupied by persons. Each place in which passengers and special personnel is carried is considered an accommodation, whether or not it is covered or enclosed. Accommodations include, but are not limited to halls, dining rooms, mess rooms, lounges, corridors, lavatories, cabins, offices, hospitals, cinemas, game and hobby rooms, and other similar places open to persons on board.

*Anti-exposure suit* means a protective suit designed for use by rescue boat crews and marine evacuation system parties.

*Approval series* means the first six digits of a number assigned by the Coast Guard to approved equipment. Where approval is based on a subpart of subchapter Q of this chapter, the approval series corresponds to the

number of the subpart. A listing of approved equipment, including all of the approval series, is published periodically by the Coast Guard in Equipment Lists (COMDTINST M16714.3 series), available from the Superintendent of Documents.

*Approved* means carrying an approval granted by the Commandant under subchapter Q of this chapter.

*Cargo vessel* means any vessel that is not a passenger vessel.

*Certificated person* means a person holding a U.S. merchant mariner's document with an endorsement as a lifeboatman or another inclusive rating under part 12 of this chapter.

*Child*, for the purpose of determining the number of lifejackets required under this part, means a person less than 41 kilograms (90 pounds) in mass.

*Civilian nautical school* means any school or branch thereof operated and conducted in the United States, except State nautical schools and schools operated by the United States or any agency thereof, which offers instruction for the primary purpose of training for service in the merchant marine.

*Coastwise voyage* means a voyage on the waters of any ocean or the Gulf of Mexico no more than 20 nautical miles offshore.

*Commandant* means the Commandant of the U.S. Coast Guard.

*Crew* means all persons carried on board the vessel to provide navigation and maintenance of the vessel, its machinery, systems, and arrangements essential for propulsion and safe navigation or to provide services for other persons on board.

*District Commander* means an officer of the U.S. Coast Guard designated by the Commandant to command all Coast Guard activities within a Coast Guard District. Coast Guard Districts are described in 33 CFR part 2.

*Detection* means the determination of the location of survivors or survival craft.

*Embarkation ladder* means the ladder provided at survival craft embarkation stations to permit safe access to survival craft after launching.

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

*Extended-size lifejacket* means a lifejacket that is approved for use by adults as well as by some larger children.

*Ferry* means a vessel as described in § 70.10-15 of this chapter.

*Float-free launching* means that method of launching a survival craft or lifesaving appliance whereby the craft or appliance is automatically released from a sinking vessel and is ready for use.

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

*Immersion suit* means a protective suit that reduces loss of body heat of a person wearing it in cold water.

*Inflatable appliance* means an appliance that depends upon nonrigid, gas-filled chambers for buoyancy and that is normally kept uninflated until ready for use.

*Inflated appliance* means an appliance that depends upon nonrigid, gas-filled chambers for buoyancy and that is kept inflated and ready for use at all times.

*International voyage* means a voyage from the United States to a port outside the United States or conversely; or, a voyage originating and terminating at ports outside the United States. Voyages between the continental United States and Hawaii or Alaska, and voyages between Hawaii and Alaska, shall be considered international voyages for the purposes of this part.

*Lakes, bays, and sounds* means the waters of any lakes, bays, or sounds other than the waters of the Great Lakes.

*Launching appliance or launching arrangement* means the method or devices designed to transfer 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 of vessel*, means the load-line length defined in § 42.13-15(a) of this chapter.

*Lifejacket* means a flotation device approved as a life preserver or lifejacket.

*Major character* means any repair, alteration or modification to a vessel that is a major conversion as decided by the Commandant (G-MCO).

*Major conversion* means a conversion of a vessel that—

(a) Substantially changes the dimensions or carrying capacity of the vessel;

(b) Changes the type of the vessel;

(c) Substantially prolongs the life of the vessel; or

(d) Otherwise so changes the vessel that it is essentially a new vessel.

*Marine evacuation system* means an appliance designed to rapidly transfer large numbers of persons from an embarkation station by means of a passage to a floating platform for subsequent embarkation into associated survival craft, or directly into associated survival craft.

*Mobile offshore drilling unit (MODU)* means a vessel capable of engaging in

drilling operations for the exploration or exploitation of subsea resources.

*Muster station* means the place where persons on board assemble before boarding a survival craft.

*Nautical school vessel* means a vessel operated by or in connection with a nautical school or an educational institution under Section 13 of the Coast Guard Authorization Act of 1986.

*Novel lifesaving appliance or arrangement* means a lifesaving appliance or arrangement that has new features not fully covered by the provisions of this part but that provides an equal or higher standard of safety.

*Ocean* means the waters of any ocean or the Gulf of Mexico more than 20 nautical miles offshore.

*Oceanographic research vessel* means a vessel that the Secretary finds is being employed only in instruction in oceanography or limnology, or both, or only in oceanographic or limnological research, including those studies about the sea such as seismic, gravity meter, and magnetic exploration and other marine geophysical or geological surveys, atmospheric research, and biological research.

*Officer in Charge, Marine Inspection (OCMI)*, means a Coast guard Officer responsible for marine inspection functions in a Marine Inspection Zone. Marine Inspection Zones are described in 33 CFR part 2.

*Passenger* means—

(a) On an international voyage, every person other than—

(1) The master and the members of the crew or other persons employed or engaged in any capacity on board a vessel on the business of that vessel; and

(2) A child under 1 year of age.

(b) On other than an international voyage, an individual carried on the vessel, except—

(1) The owner or an individual representative of the owner or, in the case of a vessel under charter, an individual charterer or individual representative of the charterer;

(2) The master; or

(3) A member of the crew engaged in the business of the vessel who has not contributed consideration for carriage and who is paid for onboard services.

*Passenger for hire* means a passenger for whom consideration is contributed as a condition of carriage on the vessel, whether directly or indirectly flowing to the owner, charterer, operator, agent, or any other person having an interest in the vessel.

*Passenger vessel* means—

(a) On an international voyage, a vessel of at least 100 tons gross tonnage carrying more than 12 passengers; and

(b) On other than an international voyage, a vessel of at least 100 tons gross tonnage—

(1) Carrying more than 12 passengers, including at least one passenger for hire; or

(2) That is chartered and carrying more than 12 passengers.

*Public nautical school* means any school or branch thereof operated by any State or political subdivision thereof or a school operated by the United States Maritime Administration that offers instruction for the primary purpose of training for service in the merchant marine.

*Public vessel* means a vessel that—

(a) Is owned, or demise chartered, and operated by the U.S. Government or a government of a foreign country including a vessel operated by the Coast Guard or Saint Lawrence Seaway Development Corporation, but not a vessel owned or operated by the Department of Transportation or any corporation organized or controlled by the Department; and

(b) Is not engaged in commercial service.

*Rescue boat* means a boat designed to rescue persons in distress and to marshal survival craft.

*Retrieval* means the safe recovery of survivors.

*Rivers*, in relation to vessel service, means operating exclusively in the waters of rivers and/or canals.

*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.

*Scientific personnel* means individuals on board an oceanographic research vessel only to engage in scientific research, or to instruct or receive instruction in oceanography or limnology.

*Similar stage of construction* means the stage at which—

(a) Construction identifiable with a specific vessel begins; and

(b) Assembly of that vessel has commenced comprising at least 50 metric tons (55.1 U.S. tons) or 1 percent of the estimated mass of all structural material, whichever is less.

*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, may exceed 600 miles. The final port of destination is the last port of call in the scheduled voyage at which the vessel

commences its return voyage to the country in which the voyage began.

*Special personnel* means all persons who are not passengers or members of the crew and who are carried on board a special purpose vessel in connection with the special purpose of that vessel or because of special work being carried out aboard that vessel. Special personnel include—

(a) On oceanographic research vessels, scientific personnel; and

(b) On nautical school vessels, students, cadets, and instructors who are not members of the crew.

*Special purpose vessel* means a mechanically self-propelled vessel which by reason of its function carries on board more than 12 special personnel including passengers. Special purpose vessels include oceanographic research vessels and nautical school vessels.

*Survival craft* means a craft capable of sustaining the lives of persons in distress from the time of abandoning the vessel on which the persons were originally carried. The term includes lifeboats, liferafts, buoyant apparatus, and lifefloats, but does not include rescue boats.

*Tank vessel* means a vessel that is constructed or adapted to carry, or that carries, oil or hazardous material in bulk as cargo or cargo residue, and that—

(a) Is a vessel of the United States;

(b) Operates on the navigable waters of the United States; or

(c) Transfers oil or hazardous material in a port or place subject to the jurisdiction of the United States.

*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 under Subchapter 19 of the International Code for the Construction and Equipment of Ships carrying Liquefied Gases in Bulk (IGC Code).

*Vessel constructed* means a vessel, the keel of which is laid or which is at a similar stage of construction.

*Warm water* means water where the monthly mean low water temperature is normally more than 15 °C (59 °F).

#### § 199.40 Evaluation, testing and approval of lifesaving appliances and arrangements.

(a) Each item of lifesaving equipment required by this part to be carried on board the vessel must be approved.

(b) Each item of lifesaving equipment carried on board the vessel in addition to those required by this part must—

(1) Be approved; or

(2) Be accepted by the cognizant OCMI for use on the vessel.

(c) The Commandant (G-MSE) may accept a novel lifesaving appliance or arrangement if it provides a level of safety equivalent to the requirements of this part and the appliance or arrangement—

(1) Is evaluated and tested in accordance with IMO Resolution A.520(13), Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Life-saving Appliances and Arrangements; or

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

(d) During the vessel's construction and when any modification to the lifesaving arrangement is done after construction, a vessel owner must obtain acceptance of lifesaving arrangements from the Commandant (G-MS-C).

(e) The OCMI may accept substitute lifesaving appliances other than those required by this part except for—

(1) Survival craft and rescue boats; and

(2) Survival craft and rescue boat launching and embarkation appliances.

(f) Acceptance of lifesaving appliances and arrangements will remain in effect unless—

(1) The OCMI deems their condition to be unsatisfactory or unfit for the service intended; or

(2) The OCMI deems the crew's ability to use and assist others in the use of the lifesaving appliances or arrangements to be inadequate.

#### **§ 199.45 Tests and inspections of lifesaving equipment and arrangements.**

(a) *Initial inspection.* The initial inspection of lifesaving appliances and arrangements for certification includes a demonstration of—

(1) The proper condition and operation of the survival craft and rescue boat launching appliances at loads ranging from light load to 10 percent overload;

(2) The proper condition and operation of lifeboats and rescue boats, including engines and release mechanisms;

(3) The proper condition of flotation equipment such as lifebuoys, lifejackets, immersion suits, work vests, lifefloats, buoyant apparatus, and associated equipment;

(4) The proper condition of distress signaling equipment, including emergency position indicating radiobeacons (EPIRB), search and rescue transponders (SART), and pyrotechnic signaling devices;

(5) The proper condition of line-throwing appliances;

(6) The proper condition and operation of embarkation appliances, including embarkation ladders and marine evacuation systems;

(7) The ability of the crew to effectively carry out abandon-ship and fire-fighting procedures; and

(8) The ability to meet the egress and survival craft launching requirements of this part.

(b) *Reinspections.* Tests and inspections of the lifesaving equipment shall be carried out during each inspection for renewal of certification, and shall include, as applicable, a demonstration of—

(1) The proper condition and operation of the survival craft and rescue boat launching appliances at loads ranging from light load to full load, except that any portion of the load test conducted in connection with replacement or end-for-ending of a fall since the vessel's last inspection or reinspection, need not be repeated;

(2) The proper condition and operation of lifeboats and rescue boats, including engines and release mechanisms;

(3) The proper condition of flotation equipment such as lifebuoys, lifejackets, immersion suits, work vests, lifefloats, buoyant apparatus, and associated equipment;

(4) The proper servicing of each inflatable liferaft and inflatable lifejacket has been serviced as required under this chapter;

(5) The proper servicing of each hydrostatic release unit, other than a disposable hydrostatic release unit, as required under this chapter; and

(6) The ability of crew to effectively carry out abandon-ship and fire-fighting procedures.

(c) *Other inspections.* (1) Lifesaving appliances and arrangements are subject to tests and inspections described in paragraph (a) of this section whenever a new lifesaving appliance is installed on the vessel. The test in paragraph (a)(1) of this section must be carried out whenever a wire fall for a launching appliance is replaced or turned end-for-end.

(2) Lifesaving appliances and arrangements are subject to tests and inspections described in paragraph (b) of this section during vessel boardings to ensure that the appliances and arrangements comply with applicable requirements, are in satisfactory condition, and remain fit for the service.

#### **Subpart B—Requirements for All Vessels**

##### **§ 199.60 Communications.**

(a) *Radio lifesaving appliances.* Radio lifesaving appliance installations and

arrangements must meet the requirements of 47 CFR part 80.

(b) *Emergency position indicating radiobeacons (EPIRB) and search and rescue transponders (SART).* Each EPIRB and SART should have the name of the vessel plainly marked or painted on its label, except for EPIRBs or SARTs in an inflatable liferaft or permanently installed in a survival craft.

(c) *Distress signals.* Each vessel must—

(1) Carry not less than 12 rocket parachute flares approved under approval series 160.136; and

(2) Stow the flares on or near the vessel's navigating bridge.

(d) *Onboard communications and alarm systems.* Each vessel must meet the requirements for onboard communications between emergency control stations, muster and embarkation stations, and strategic positions on board. Each vessel must also meet the emergency alarm system requirements in subchapter J of this chapter, which must be supplemented by either a public address system or other suitable means of communication.

##### **§ 199.70 Personal lifesaving appliances.**

(a) *Lifebuoys.* Each vessel must carry lifebuoys approved under approval series 160.150 as follows:

(1) *Stowage.* Lifebuoys must be stowed as follows:

(i) Each lifebuoy must be capable of being rapidly cast loose.

(ii) No lifebuoy may be permanently secured to the vessel in any way.

(iii) Each lifebuoy stowage position must be marked with either the words "LIFEBUOY" or "LIFE BUOY", or with the appropriate symbol from IMO Resolution A.760(18).

(iv) Lifebuoys must be so distributed as to be readily available on each side of the vessel and, as far as practicable, on each open deck extending to the side of the vessel. At least one lifebuoy must be located near the stern of the vessel. The lifebuoys with attached self-igniting lights must be equally distributed on both sides of the vessel.

(v) At least two lifebuoys, each with attached self-activating smoke signals, must be stowed where they can be quickly released from the navigating bridge and should, when released, fall directly into the water without striking any part of the vessel.

(2) *Markings.* Each lifebuoy must be marked in block capital letters with the name of the vessel and the name of the port required to be marked on the stern of the vessel under § 67.13 of this chapter.

(3) *Attachments and fittings.*

Lifebuoys must have the following attachments and fittings:

(i) At least one lifebuoy on each side of the vessel fitted with a buoyant lifeline that is—

(A) At least as long as twice the height where it is stowed above the waterline with the vessel in its lightest seagoing condition, or 30 meters (100 feet) in length, whichever is the greater;

(B) Non-kinking;

(C) Not less than 8 millimeters ( $\frac{5}{16}$  inch) in diameter;

(D) Of a breaking strength which is not less than 5 kiloNewtons (1,124 pounds-force); and

(E) Is, if synthetic, a dark color or certified by the manufacturer to be resistant to deterioration from ultraviolet light.

(ii) At least one-half the total number of lifebuoys on the vessel must each be fitted with a self-igniting light approved under approval series 161.010. The self-igniting light may not be attached to the lifebuoys required by this section to be fitted with lifelines.

(iii) At least two lifebuoys on the vessel must be fitted with a self-activating smoke signal approved under approval series 160.157. Lifebuoys fitted with smoke signals must also be fitted with lights.

(b) *Lifejackets*. Each vessel must carry lifejackets approved under approval series 160.155, 160.176 or 160.177. If the vessel carries inflatable lifejackets, they must be of the same or similar design and have the same method of operation.

(1) *General*. Each vessel must carry a lifejacket for each person on board, and in addition—

(i) A number of lifejackets suitable for children equal to at least 10 percent of the total number of passengers on board must be provided, or such greater number as may be required to provide a lifejacket of suitable size for each person smaller than the lower size limit of the adult-size lifejacket; and

(ii) A sufficient number of lifejackets must be carried for persons on watch and for use at remotely located survival craft stations.

(2) *Stowage*. Lifejackets must be stowed as follows:

(i) The lifejackets must be readily accessible.

(ii) The child-size lifejackets must be stowed separately from the adult lifejackets.

(iii) The lifejackets stowage positions must be marked with the words "LIFEJACKETS" or "CHILD LIFEJACKETS" as appropriate, or with the appropriate symbol from IMO Resolution A.760(18).

(iv) The additional lifejackets for persons on watch required by paragraph (b)(1)(ii) of this section must be stowed

on the bridge, in the engine control room, and at other manned watch stations.

(v) Where, due to the particular arrangements of the vessel, the lifejackets required by paragraph (b) of this section may become inaccessible, alternative provisions must be made to the satisfaction of the OCMi that may include an increase in the number of lifejackets to be carried.

(3) *Markings*. Each lifejacket must be marked—

(i) In block capital letters with the name of the vessel; and

(ii) With Type I retro-reflective material approved under approval series 164.018. The arrangement of the retro-reflective material must meet IMO Resolution A.658(16).

(4) *Attachments and fittings*. Lifejackets must have the following attachments and fittings:

(i) Each lifejacket must have a lifejacket light approved under approval series 161.112 securely attached to the front shoulder area of the lifejacket.

(ii) Each lifejacket must have a whistle firmly secured by a cord to the lifejacket.

(c) *Rescue boat and marine evacuation system immersion suits or anti-exposure suits*. (1) *General*. Each vessel, except vessels operating on routes between 32 degrees north latitude and 32 degrees south latitude, must carry immersion suits approved under approval series 160.171 or anti-exposure suits approved under approval series 160.153 of suitable size for each person assigned to the rescue boat crew and each person assigned to a marine evacuation system crew.

(2) *Stowage*. Immersion suits or anti-exposure suits must be stowed so they are readily accessible. The stowage positions must be marked with either the words "IMMERSION SUITS" or "ANTI-EXPOSURE SUITS" as appropriate, or with the appropriate symbol from IMO Resolution A.760(18).

(3) *Markings*. Each immersion suit or anti-exposure suit must be marked in block capital letters with the name of the vessel.

(4) *Attachments and fittings*. Immersion suits or anti-exposure suits must have the following attachments and fittings:

(i) Each immersion suit or anti-exposure suit must have a lifejacket light approved under approval series 161.112 securely attached to the front shoulder area of the immersion suit or anti-exposure suit.

(ii) Each immersion suit or anti-exposure suit must have a whistle firmly secured by a cord to the immersion suit or anti-exposure suit.

(d) *Lifejacket, immersion suit, and anti-exposure suit containers*. Each lifejacket, immersion suit, and anti-exposure suit container must be marked in block capital letters and numbers with the quantity, identity, and size of the equipment stowed inside the container. The equipment may be identified in words or with the appropriate symbol from IMO Resolution A.760(18).

#### § 199.80 Muster list and emergency instructions.

(a) *General*. Clear instructions must be provided on the vessel that detail the actions each person on board should follow in the event of an emergency.

(b) *Muster list*. Copies of the muster list must be posted in conspicuous places throughout the vessel including on the navigating bridge, in the engine room, and in crew accommodation spaces. The muster list must be posted before the vessel begins its voyage. After the muster list has been prepared, if any change takes place that necessitates an alteration in the muster list, the master must either revise the existing muster list or prepare a new one. Each muster lists must at least specify—

(1) The instructions for operating the general emergency alarm system and public address system;

(2) The emergency signals;

(3) The actions to be taken by the persons on board when each signal is sounded;

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

(5) The officers that are assigned to make sure that lifesaving and firefighting appliances are maintained in good condition and ready for immediate use;

(6) The duties assigned to the different members of the crew. Duties to be specified include—

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

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

(iii) Preparing and launching the survival craft;

(iv) Preparing other lifesaving appliances;

(v) Mustering the passengers and other persons on board;

(vi) Using communication equipment;

(vii) Manning the emergency squad assigned to deal with fires and other emergencies; and

(viii) Using firefighting equipment and installations.

(7) The duties assigned to members of the crew in relation to passengers and other persons on board in case of an



emergency. Assigned duties to be specified include—

- (i) Warning the passengers and other persons on board;
- (ii) Seeing that passengers and other persons on board are suitably dressed and have donned their lifejackets or immersion suits correctly;
- (iii) Assembling passengers and other persons on board at muster stations;
- (iv) Keeping order in the passageways and on the stairways and generally controlling the movements of the passengers and other persons on board; and
- (v) Making sure that a supply of blankets is taken to the survival craft; and
- (8) The substitutes for key persons if they are disabled, taking into account that different emergencies require different actions.

(c) *Emergency instructions.* Illustrations and instructions in English, and any other appropriate language as determined by the OCMI, must be posted in each passenger cabin and in spaces occupied by persons other than crew, and must be conspicuously displayed at each muster station. The illustrations and instructions must include information on—

- (1) The fire and emergency signal;
- (2) Their muster station;
- (3) The essential actions they must take in an emergency;
- (4) The location of lifejackets, including child-size lifejackets; and
- (5) The method of donning lifejackets.

#### § 199.90 Operating instructions.

Each vessel must have posters or signs displayed in the vicinity of each survival craft and the survival craft's launching controls that—

- (a) Illustrate the purpose of controls;
- (b) Illustrate the procedures for operating the launching device;
- (c) Give relevant instructions or warnings;
- (d) Can be easily seen under emergency lighting conditions; and
- (e) Display symbols in accordance with IMO Resolution A.760(18).

#### § 199.100 Manning of survival craft and supervision.

- (a) There must be a sufficient number of trained persons on board the vessel for mustering and assisting untrained persons.
- (b) There must be a sufficient number of deck officers, able seamen, or certificated persons on board the vessel to operate the survival craft and launching arrangements required for abandonment by the total number of persons on board.

(c) There must be one person placed in charge of each survival craft to be used. The person in charge must—

- (1) Be a deck officer, able seaman, or certificated person. 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 or inflatable buoyant apparatus to be placed in charge of liferafts or inflatable buoyant apparatus; and
- (2) Have a list of the survival craft crew and ensure that the crewmembers are acquainted with their duties.
- (d) There must be a second-in-command designated for each lifeboat. This person should be a deck officer, able seaman, or certificated person. The second-in-command of a lifeboat must also have a list of the lifeboat crew.
- (e) There must be a person assigned to each motorized survival craft who is capable of operating the engine and carrying out minor adjustments.
- (f) The master must make sure that the persons required under paragraphs (a), (b), (c), and (d) of this section are equitable distributed among the vessel's survival craft.

#### § 199.110 Survival craft muster and embarkation arrangements.

- (a) Each muster station must have sufficient space to accommodate all persons assigned to muster at that station. One or more muster stations must be close to each embarkation station.
- (b) Each muster station and embarkation station must be readily accessible to accommodation and work areas.
- (c) Each muster station and embarkation station must be adequately illuminated by lighting with power supplied from the vessel's emergency source of electrical power.
- (d) Each alleyway, stairway, and exit giving access to a muster and embarkation station must be adequately illuminated by lighting that is capable of having its power supplied by the vessel's emergency source of electrical power.
- (e) Each davit-launched and free-fall survival craft muster station and embarkation station must be arranged to enable stretcher cases to be placed in the survival craft.
- (f) Each launching station, or each two adjacent launching stations, must have an embarkation ladder as follows:
  - (1) Each embarkation ladder must be approved under approval series 160.117 or be a rope ladder approved under approval series 160.017.
  - (2) Each embarkation ladder must extend in a single length from the deck

to the waterline with the vessel in its lightest seagoing condition under unfavorable conditions of trim and with the vessel listed not less than 15 degrees either way.

(3) Provided that there is at least one embarkation ladder on each side of the vessel, the OCMI may permit additional embarkation ladders to be other approved devices that provide safe and rapid access to survival craft in the water.

(4) The OCMI may accept other safe and effective means of embarkation for use with a liferaft required under § 199.261(e).

(g) If a davit-launched survival craft is embarked over the edge of the deck, the craft must be provided with a means for bringing it against the side of the vessel and holding it alongside the vessel to allow persons to safely embark.

(h) If a davit-launched survival craft is not intended to be moved to the stowed position with persons on board, the craft must be provided with a means for bringing it against the side of the vessel and holding it alongside the vessel to allow persons to safely disembark after a drill.

#### § 199.120 Launching stations.

(a) Each launching station must be positioned to ensure safe launching with clearance from the propeller and from the steeply overhanging portions of the hull.

(b) Each survival craft must be launched down the straight side of the vessel, except for free-fall launched survival craft.

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

- (1) Be in a sheltered position that is located aft of the collision bulkhead; and
- (2) Have a launching appliance approved with an endorsement as being of sufficient strength for forward installation.

#### § 199.130 Stowage of survival craft.

- (a) *General.* Each survival craft must be stowed—
  - (1) As close to the accommodation and service spaces as possible;
  - (2) So 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;
  - (3) As near the water surface as is safe and practicable;
  - (4) Except for liferafts intended for throw-overboard launching, not less than 2 meters above the waterline with the vessel—
    - (i) In the fully loaded condition;

(ii) Under unfavorable conditions of trim; and

(iii) Listed up to 20 degrees either way, or to the angle at which the vessel's weatherdeck edge becomes submerged, whichever is less.

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

(6) In a secure and sheltered position and protected from damage by fire and explosion, as far as practicable; and

(7) So as not to require lifting from its stowed position in order to launch, except that—

(i) A davit-launched liferaft may be lifted by a manually powered winch from its stowed position to its embarkation position; or

(ii) A survival craft that weighs 185 kilograms (407.8 pounds) or less may be lifted not more than 300 millimeters (1 foot) in order to launch.

(b) *Additional lifeboat stowage requirements.* In addition to the requirements of paragraph (a) of this section, each lifeboat must be stowed as follows:

(1) Each lifeboat for lowering down the side of the vessel must be stowed as far forward of the vessel's propeller as practicable. Each lifeboat, in its stowed position, must be protected from damage by heavy seas.

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

(3) Each lifeboat must have a means for recharging the lifeboat batteries from the vessel's power supply at a supply voltage not exceeding 50 volts.

(c) *Additional liferaft stowage requirements.* In addition to the requirements of paragraph (a) of this section, each liferaft must be stowed as follows:

(1) Each liferaft must be stowed to permit manual release from its securing arrangements.

(2) Each liferaft must be stowed at a height above the waterline not greater than the maximum stowage height indicated on the liferaft container with the vessel in its lightest seagoing condition. Each liferaft without an indicated maximum stowage height must be stowed not more than 18 meters (59 feet) above the waterline with the vessel in its lightest seagoing condition.

(3) Each liferaft must be arranged to permit it to drop into the water from the deck on which it is stowed. A liferaft stowage arrangements meets this requirement if it—

(i) Is outboard of the rail or bulwark;

(ii) Is on stanchions or on a platform adjacent to the rail or bulwark; or

(iii) Has a gate or other suitable opening large enough to allow the

liferaft to be pushed directly overboard and, if the liferaft is intended to be available for use on either side of the vessel, such gate or opening is provided on each side of the vessel.

(4) 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—

(i) Within the limits of trim and list specified in paragraph (a)(4) of this section;

(ii) By vessel motion; or

(iii) By power failure.

(5) Each rigid container for an inflatable liferaft to be launched by a launching appliance must be secured so that the container or parts of it do not fall into the water during and after inflation and launching of the contained liferaft.

(6) Each liferaft must have a painter system providing a connection between the vessel and the liferaft.

(7) Each liferaft or group of liferafts must be arranged for float-free launching. The arrangement must ensure that the liferaft or liferafts, when released and inflated, are not dragged under by the sinking vessel. A hydrostatic release unit used in a float-free arrangement must be approved under approval series 160.162.

#### § 199.140 Stowage of rescue boats.

(a) *General.* Rescue boats must be stowed—

(1) To be ready for launching in not more than 5 minutes;

(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 the requirements of § 199.130.

(b) Each rescue boat must have a means provided for recharging the rescue boat batteries from the vessel's power supply at a supply voltage not exceeding 50 volts.

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

#### § 199.145 Marine evacuation system launching arrangements.

(a) *Arrangements.* Each marine evacuation system must—

(1) Be capable of being deployed by one person;

(2) Enable the total number of persons for which it is designed, to be transferred from the vessel into the inflated liferafts within a period of 30 minutes in the case of a passenger vessel

and 10 minutes in the case of a cargo vessel from the time an abandon-ship signal is given;

(3) Be arranged so that liferafts may be securely attached to and released from the marine evacuation system platform by a person either in the liferaft or on the platform;

(4) Be capable of being deployed from the vessel under unfavorable conditions of trim of up to 10 degrees either way and of list of up to 20 degrees either way;

(5) If the marine evacuation system has an inclined slide, it must—

(i) Be arranged so the angle of the slide from horizontal is within a range of 30 to 35 degrees when the vessel is upright and in its lightest seagoing condition; and

(ii) If the vessel is a passenger vessel, be arranged so the angle of the slide from horizontal is no more than 55 degrees in the final stage of flooding as described in subchapter S of this chapter; and

(6) Be capable of being restrained by a bousing line or other positioning system that is designed to deploy automatically and if necessary, is capable of being adjusted to the position required for evacuation.

(b) *Stowage.* Each marine evacuation system must be stowed as follows:

(1) There must not be any openings between the marine evacuation system's embarkation station and the vessel's side at the waterline with the vessel in its lightest seagoing condition.

(2) The marine evacuation system's launching positions must be arranged, as far as practicable, to be straight down the vessel's side and to safely clear the propeller and any steeply overhanging positions of the hull.

(3) The marine evacuation system must be protected from any projections of the vessel's structure or equipment.

(4) The marine evacuation system's passage and platform, when deployed; its stowage container; and its operational arrangement must not interfere with the operation of any other lifesaving appliance at any other launching station.

(5) The marine evacuation system's stowage area must be protected from damage by heavy seas.

(c) *Stowage of associated liferafts.* Inflatable liferafts used in conjunction with the marine evacuation system must be stowed—

(1) Close to the system container, but capable of dropping clear of the deployed chute and boarding platform;

(2) So it is capable of individual release from its stowage rack;

(3) In accordance with the requirements of § 199.130; and

(4) With pre-connected or easily connected retrieving lines to the platform.

**§ 199.150 Survival craft launching and recovery arrangements; general.**

(a) (1) Each launching appliance for a lifeboat must be approved under approval series 160.132 with a winch approved under approval series 160.115.

(2) Each launching appliance for a davit-launched liferaft must be approved under approval series 160.163 with an automatic disengaging apparatus approved under approval series 160.170.

(b) Unless expressly provided otherwise in this part, each survival craft must be provided with a launching appliance or marine evacuation system, except those survival craft that—

(1) Can be boarded from a position on deck less than 4.5 meters (14.75 feet) above the waterline with the vessel in its lightest seagoing condition and that are stowed for launching directly from the stowed position under unfavorable conditions of trim of 10 degrees and list of 20 degrees either way;

(3) Are carried in excess of the survival craft for 200 percent of the total number of persons on board the vessel, and that have a mass of not more than 185 kilograms (407 pounds);

(4) Are carried in excess of the survival craft for 200 percent of the total number of persons on board the vessel and that are stowed for launching directly from the stowed position under unfavorable conditions or trim of 10 degrees and list of 20 degrees either way; or

(5) Are provided for use in conjunction with a marine evacuation system and that are stowed for launching directly from the stowed position under unfavorable conditions of trim of 10 degrees and list of 20 degrees either way.

(c) With the exception of the secondary means of launching for free-fall lifeboats, each launching appliance must be arranged so that the fully equipped survival craft it serves can be safely launched against unfavorable conditions of trim of up to 10 degrees either way and of list of up to 20 degrees either way—

(1) When the survival craft is loaded with its full complement of persons; and

(2) When not more than the required operating crew is on board.

(d) 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 both the fully loaded and

equipped condition and in the light condition.

(e) Each launching appliance's structural attachment to the vessel must be designed, based on the ultimate strength of the construction material, to 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 (c) of this section.

(f) Each launching appliance must be arranged so that—

(1) All parts requiring regular maintenance by the vessel's crew are readily accessible and easily maintained;

(2) The launching appliance remains effective under conditions of icing;

(3) The same type of release mechanism is used for each similar survival craft carried on board the vessel;

(4) The preparation and handling of each survival craft at any one launching station does not interfere with the prompt preparation and handling of any other survival craft at any other station;

(5) The persons on board the vessel can safely and rapidly board the survival craft; and

(6) During preparation and launching, the survival craft, its launching appliance, and the area of water into which it is to be launched are illuminated by lighting supplied from the vessel's emergency source of electrical power.

(g) Each launching and recovery arrangement must allow the operator on the deck to observe the survival craft at all times during launching.

(h) Means must be provided outside the machinery space to prevent any discharge of water onto survival craft during launching.

(i) 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 source of electrical power. Indicators operated by the vessel's emergency power system must be provided 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.**

Survival craft launching and recovery arrangements, in addition to meeting the requirements in § 199.150, must meet the following requirements:

(a) Each launching mechanism must be arranged so it may be actuated by one person from a position on the vessel's deck, and except for secondary

launching appliances for free-fall launching arrangements, from a position within the survival craft.

(b) Each fall wire must be of rotation-resistant and corrosion-resistant steel wire rope.

(c) 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.

(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 not less than 20 degrees either way.

(e) Each unguarded fall must not pass near any operating position of the winch, such as hand cranks, pay out wheels, and brake levers.

(f) Each winch drum must be arranged so the fall wire winds onto the drum in a level wrap. A multiple drum winch must be arranged so that the falls wind off at the same rate when lowering and onto the drums at the same rate when hoisting.

(g) Each fall, where exposed to damage or fouling, must have guards or equivalent protection. Each fall that leads along a deck must be covered with a guard that is not more than 300 millimeters (1 foot) above the deck.

(h) The lowering speed for a fully loaded survival craft must be not less than the speed obtained from one of the following formulas:

(1)  $S = 0.4 + (0.02 H)$ , where S is the lowering speed in meters per second and H is the lowering height in meters from the davit head to the waterline with the vessel in its lightest seagoing condition, with H not greater than 30 regardless of the actual lowering height.

(2)  $S = 79 + (1.2 H)$ , where S is the lowering speed in feet per minute and H is the lowering height in feet from the davit head to the waterline with the vessel in its lightest seagoing condition, with H not greater than 99 regardless of the actual lowering height.

(i) The lowering speed for a survival craft loaded with all of its equipment must be not less than 70 percent of the speed required under paragraph (g) of this section.

(j) The lowering speed for a fully loaded survival craft must be not more than 1.3 meters per second (256 feet per minute).

(k) If a survival craft is recovered by electric power, the electrical installation, including the electric power-operated boat winch, must meet the requirements in subchapter J of this chapter. If a survival craft is recovered by any means using power, including a portable power source, safety devices

must be provided that automatically cut off the power before the davit arms or falls reach the stops in order to avoid overstressing the falls or davits, unless the motor is designed to prevent such overstressing.

(l) Each launching appliance must be fitted with brakes that meet the following requirements:

(1) The brakes must be capable of stopping the descent of the survival craft or rescue boat and holding the survival craft or rescue boat securely when loaded with its full complement of persons and equipment.

(2) The brake pads must, where necessary, be protected from water and oil.

(3) Manual brakes must be arranged so that the brake is always applied unless the operator, or a mechanism activated by the operator, holds the brake control in the off position.

**§ 199.155 Lifeboat launching and recovery arrangements.**

Lifeboat launching and recovery arrangements, in addition to meeting the requirements in §§ 199.150 and 199.153, must meet the following requirements:

(a) Each lifeboat must be provided with a launching appliance. The launching appliance must be capable of launching and recovering the lifeboat with its crew.

(b) Each launching appliance arrangement must allow the operator on the vessel to observe the lifeboat at all times during recovery.

(c) Each launching appliance arrangement must be designed to ensure persons can safely disembark from the survival craft prior to its stowage.

(d) Each lifeboat, other than a totally enclosed lifeboat, must be provided with a davit span 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 degrees either way.

**§ 199.157 Free-fall lifeboat launching and recovery arrangements.**

(a) The launching appliance for a free-fall lifeboat must be designed and installed so that the launching appliance and the lifeboat it serves operate as a system to protect the occupants from harmful acceleration forces and to effectively clear the vessel.

(b) The launching appliance must be designed and arranged so that, in its ready to launch position, the distance from the lowest point on the lifeboat it serves to the water surface with the vessel in its lightest seagoing condition does not exceed the lifeboat's certificated free-fall height.

(c) The launching appliance must be arranged to preclude accidental release of the lifeboat in its unattended stowed position. If the means provided to secure the lifeboat cannot be released from inside the lifeboat, the means to secure the lifeboat must be arranged to preclude boarding the lifeboat without first releasing it.

(d) Each free-fall launching arrangement must be provided with a secondary means to launch the lifeboat by falls. Such means must comply with the requirements of §§ 199.150, 199.153, and 199.155. Notwithstanding § 199.150(c), the secondary launching appliance must be capable of launching the lifeboat against unfavorable conditions of trim of 2 degrees either way and of list of 5 degrees either way. The secondary launching appliance need not comply with the speed requirements of §§ 199.153 (g), (h), and (i). If the secondary launching appliance is not dependent on gravity, stored mechanical power, or other manual means, the launching arrangement must be connected both to the vessel's main and emergency power supplies.

**§ 199.160 Rescue boat embarkation, launching and recovery arrangements.**

(a) Each rescue boat 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 rescue boat embarkation and launching arrangement must permit the rescue boat to be boarded and launched in the shortest possible time.

(c) The rescue boat must meet the embarkation and launching arrangement requirements of §§ 199.110 (e) and (g), 199.150, 199.155, and if the launching arrangement uses falls and a winch, § 199.153.

(d) If the rescue boat is one of the vessel's survival craft, the rescue boat must also meet the following requirements:

(1) The rescue boat must meet the muster and embarkation arrangement requirements of § 199.110 and the launching station requirements of § 199.120.

(2) If the launching arrangement uses a single fall, the rescue boat may have an automatic disengaging apparatus approved under approval series 160.170 instead of a lifeboat release mechanism.

(e) 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.

(f) Each rescue boat launching appliance must be fitted with a powered winch motor.

(g) 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 meters per second (59 feet per minute).

**§ 199.170 Line-throwing appliance.**

(a) *General.* Each vessel must have a line-throwing appliance approved under approval series 160.040.

(b) *Stowage.* The line-throwing appliance and its equipment must be readily accessible for use.

(c) *Additional equipment.* Each vessel must carry the following equipment for the line-throwing appliance—

(1) The equipment on the list provided by the manufacturer with the approved appliance; and

(2) An auxiliary line that—

(i) Is at least 450 meters (1,500 feet) long;

(ii) Has a breaking strength of at least 40 kiloNewtons (9,000 pounds-force); and

(iii) Is, if synthetic, of a dark color or certified by the manufacturer to be resistant to deterioration from ultraviolet light.

**§ 199.175 Survival craft and rescue boat equipment.**

(a) All lifeboat and rescue boat equipment—

(1) Must be secured within the boat by lashings, by storage in lockers or compartments, by storage in brackets or similar mounting arrangements, or by other suitable means;

(2) Must be secured in such a manner as not to interfere with any abandonment procedures or reduce seating capacity;

(3) Must be as small and of as little mass as possible;

(4) Must be packed in a suitable and compact form; and

(5) Should be stowed so the items do not—

(i) Reduce the seating capacity;

(ii) Adversely affect the seaworthiness of the survival craft or rescue boat; or

(iii) Overload the launching appliance.

(b) Each lifeboat, rigid liferaft, and rescue boat, unless otherwise stated in this paragraph, must carry the equipment listed in this paragraph and specified for it in table 199.175 of this section under the vessel's category of service. A lifeboat that is also a rescue boat must carry the equipment in the table column marked for a lifeboat.

(1) *Bailer.* The bailer must be buoyant.

(2) *Bilge pump*. The bilge pump must be approved under approval series 160.044 and must be installed in a ready-to-use condition as follows:

(i) The bilge pump for a lifeboat approved for less than 70 persons must be either size 2 or size 3.

(ii) The bilge pump for a lifeboat approved for 70 persons or more must be size 3.

(3) *Boathook*. In the case of a boat launched by falls, the boathook must be kept free for fending-off purposes. For inflated rescue boats and for rigid-inflated rescue boats, each boathook must be designed to minimize the possibility of damage to the inflated portions of the hull.

(4) *Bucket*. The bucket must be made of corrosion-resistant material and should either be buoyant or have an attached lanyard at least 1.8 meters (6 feet) long.

(5) *Can opener*. A can opener may be in a jackknife approved under approval series 160.043.

(6) *Compass*. The compass and its mounting arrangement must be approved under approval series 160.014. In a totally enclosed lifeboat, the compass must be permanently fitted at the steering position; in any other boat it must be provided with a binnacle, if necessary to protect it from the weather, and with suitable mounting arrangements.

(7) *Dipper*. The dipper must be rustproof and attached to a lanyard that should be at least 0.9 meters (3 feet) long.

(8) *Drinking cup*. The drinking cup must be graduated and rustproof. The cup should also be of a breakage-resistant material.

(9) *Fire extinguisher*. The fire extinguisher must be approved under approval series 162.028. The fire extinguisher must be type B-C, size II, or larger. Two type B-C, size I fire extinguishers may be carried in place of a type B-C, size II fire extinguisher.

(10) *First aid kit*. The first aid kit in a lifeboat and in a rescue boat must be approved under approval series 160.041. The first aid kit in a rigid liferaft must be approved under approval series 160.054.

(11) *Fishing kit*. The fishing kit must be approved under approval series 160.061.

(12) *Flashlight*. The flashlight must be a type I or type III that is constructed and marked in accordance with the American Society of Testing and Materials (ASTM) F1014. One spare set of batteries and one spare bulb, stored in a watertight container, must be provided for each flashlight.

(13) *Hatchet*. The hatchet must be approved under approval series 160.013. The hatchet should be stowed in brackets near the release mechanism and, if more than one hatchet is carried, the hatchets should be stowed at opposite ends of the boat.

(14) *Heaving line*. The heaving line must be buoyant, must be at least 30 meters (99 feet) long, must have a buoyant rescue quoit attached to one end, and should be at least 8 millimeters ( $\frac{5}{16}$  inches) in diameter.

(15) *Instruction card*. The instruction card must be waterproof and contain the information required by IMO Resolution A.657(16). The instruction card should be located so that it can be easily seen upon entering the liferaft.

(16) *Jackknife*. The jackknife must be approved under approval series 160.043 and must be attached to the boat by its lanyard.

(17) *Knife*. The knife must be of the non-folding type with a buoyant handle as follows:

(i) The knife for a rigid liferaft must be secured to the raft by a lanyard and stowed in a pocket on the exterior of the canopy near the point where the painter is attached to the liferaft. If an approved jackknife is substituted for the second knife required on a liferaft equipped for 13 or more persons, the jackknife must also be secured to the liferaft by a lanyard.

(ii) The knife in an inflated or rigid-inflated rescue boat must be of a type designed to minimize the possibility of damage to the fabric portions of the hull.

(18) *Ladder*. The boarding ladder must be capable of being used at each entrance on either side or at the stern of the boat to enable persons in the water to board the boat. The lowest step of the ladder must be not less than 0.4 meters (15.75 inches) below the boat's light waterline.

(19) *Mirror*. The signalling mirror must be approved under approval series 160.020.

(20) *Oars and paddles*. Each lifeboat and rescue boat must have buoyant oars or paddles of the number, size, and type specified by the manufacturer of the boat. An oarlock or equivalent device, either permanently installed or attached to the boat by a lanyard or chain, must be provided for each oar. Each oar should have the vessel's name marked on it in block letters.

(21) *Painter*. (i) One painter on a lifeboat and the painter on a rescue boat must be attached by a painter release device at the forward end of the lifeboat. The second painter on a lifeboat must be secured at or near the bow of the lifeboat, ready for use. On lifeboats to be

launched by free-fall launching, both painters must be stowed near the bow ready for use.

(A) If the painter is of synthetic material, the painter must be of a dark color or certified by the manufacturer to be resistant to deterioration from ultraviolet light.

(B) The painter for a lifeboat and each painter for a rescue boat must be of a length that is at least twice the distance from the stowage position of the boat to the waterline with the vessel in its lightest seagoing condition, or must be meters (50 feet) long, whichever is the greater.

(C) The painter must have a breaking strength of at least 34 kiloNewtons (7,700 pounds-force).

(D) The painter for a rigid liferaft must be of a length that is at least 20 meters (66 feet) plus the distance from the liferaft's stowed position to the waterline with the vessel in its lightest seagoing condition, or must be 15 meters (50 feet) long, whichever is the greater.

(E) If the painter is of synthetic material, the painter must be of a dark color or certified by the manufacturer to be resistant to deterioration from ultraviolet light.

(F) The painter must have a breaking strength of at least 15 kiloNewtons (3,937 pounds-force) for liferafts approved for more than 25 persons, of at least 20 kiloNewtons (2,250 pounds-force) for liferafts approved for 9 to 25 persons, and of at least 7.5 kiloNewtons (1,687 pounds-force) for any other liferaft.

(G) The painter must have a float-free link meeting the requirements of part 160, subpart 160.073 of this chapter secured to the end of the painter that is attached to the vessel. The float-free link arrangement must break under a load of  $2.2 \pm 0.4$  kiloNewtons (400 to 536 pounds-force).

(22) *Provisions*. Each unit of provisions must be approved under approval series 160.046 and must provide at least 10,000 kiloJoules (2,390 calories). Individual provision packages may provide less than 10,000 kiloJoules, as long as the total quantity of provisions on board provides for at least 10,000 kiloJoules per person.

(23) *Pump*. The pump or bellows must be manually operated and should be arranged so it is capable of inflating any part of the inflatable structure of the rescue boat.

(24) *Radar reflector*. The radar reflector must be capable of detection at a distance of 4 nautical miles and must have a mounting arrangements to install it on the boat in its proper orientation. A 9-GigaHertz radar transponder may be

substituted for the radar reflector if the transponder is accepted by the Federal Communications Commission as meeting the requirements of 47 CFR part 80 and is stowed in the boat or raft.

(25) *Rainwater collection device.* The rainwater collection device must be arranged to collect falling rain and direct it into the water tanks in the lifeboat. If the lifeboat carries a manually-powered, reverse osmosis desalinator approved under approval series 160.058, a rainwater collection device is not required.

(26) *Repair kit.* The repair kit for an inflated and a rigid-inflated rescue boat must be packed in a suitable container and include at least—

- (i) Six sealing clamps;
- (ii) Five 50-millimeter (2-inch) diameter tube patches;
- (iii) A roughing tool; and
- (iv) A container of 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.

(27) *Sea anchor.* (i) The sea anchor for a lifeboat must be approved under approval series 160.019.

(ii) Each sea anchor for a rigid liferaft must be of the type specified by the liferaft manufacturer and must be fitted with a shock resistant hawser. It may also be fitted with a tripping line. One sea anchor must be permanently attached to the liferaft in such a way that, when the liferaft is waterborne, it will cause the liferaft to lie oriented to the wind in the most stable manner. The second sea anchor must be stowed in the liferaft as a spare. A davit-launched liferaft and a liferaft on a passenger vessel must have the permanently attached sea anchor arranged to deploy automatically when the liferaft floats free.

(iii) The sea anchor for a rescue boat must be of the type specified by the rescue boat manufacturer, and must have a hawser of adequate strength that is at least 10 meters (33 feet) long.

(28) *Searchlight.* (i) The searchlight must be of the type originally provided

with the approved lifeboat or rescue boat, or must be certified by the searchlight manufacturer to meet ASTM F1003. The boat must carry two spare bulbs.

(ii) 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.

(iii) The searchlights power source must be capable of operating the light without charging or recharging for not less than—

- (A) Three hours of continuous operation; or
- (B) Six hours total operation when it is operated in cycles of 15 minutes on and 5 minutes off.

(iv) If the searchlight's 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 (b)(28)(iii) of this section.

(v) The searchlight's power source must be connected to the searchlight using watertight electrical fittings.

(29) *Seasickness kit.* The seasickness kit must be in a waterproof package and must include one waterproof seasickness bag, anti-seasickness medication sufficient for one person for 48 hours, and instructions for using the medication. Each seasickness kit should be stowed within reach of the seat for which it is intended.

(30) *Signal, smoke.* The smoke signal must be approved under approval series 160.122.

(31) *Signal, hand flare.* The hand flare must be approved under approval series 160.121.

(32) *Signal, rocket parachute flare.* The rocket parachute flare must be approved under approval series 160.136.

(33) *Skates and fenders.* The skates and fenders must be as specified by the lifeboat or rescue boat manufacturer to facilitate launching and prevent damage

to a lifeboat intended for launching down the side of a vessel.

(34) *Sponge.* The sponge must be suitable for soaking up water.

(35) *Survival instructions.* The survival instructions must be as described in IMO Resolution A.657(16), Annex I for liferafts and Annex II for lifeboats.

(36) *Table of lifesaving signals.* The table of lifesaving signals must be as described in Annex IV to the International Regulations for Preventing Collisions at Sea 1972, as amended, and must be printed on a waterproof card or stored in a waterproof container.

(37) *Thermal protective aid.* The thermal protective aid must be approved under approval series 160.174.

(38) *Tool kit.* The tool kit must contain sufficient tools for minor adjustments to the engine and its accessories.

(39) *Towline.* The towline must be buoyant and at least 50 meters (164 feet) long. The towline must have a breaking strength of not less than 13.3 kiloNewtons (3,000 pounds-force) or be of sufficient strength to tow the largest liferaft carried on the vessel when loaded with its full complement of persons and equipment at a speed of at least 2 knots.

(40) *Water.* The water must be emergency drinking water approved under approval series 160.026.

(i) The requirement for up to one-third of the emergency drinking water may be met by a desalting apparatus approved under approval series 160.058 that is capable of producing the substituted amount of water in 2 days.

(ii) The requirement for up to two-thirds of the emergency drinking water may be met by a manually-powered, reverse osmosis desalinator approved under approval series 160.058 and that is capable of producing the substituted amount of water in 2 days.

(41) *Whistle.* The whistle must be corrosion-resistant, and should be a ball-type or multi-tone whistle that is attached to a lanyard.

TABLE 199.175.—SURVIVAL CRAFT EQUIPMENT

Item No.	Item	International voyage			Short international voyage		
		Lifeboat	Rigid life-raft (SOLAS A pack)	Rescue boat	Lifeboat	Rigid life-raft (SOLAS B pack)	Rescue boat
1	Bailer <sup>1</sup> .....	1	1	1	1	1	1
2	Bilge pump <sup>2</sup> .....	1	.....	.....	1	.....	.....
3	Boathook .....	2	.....	1	2	.....	1
4	Bucket <sup>3</sup> .....	2	.....	1	2	.....	1
5	Can opener .....	3	3	.....	3	.....	.....
6	Compass .....	1	.....	1	1	.....	1
7	Dipper .....	1	.....	.....	1	.....	.....

TABLE 199.175.—SURVIVAL CRAFT EQUIPMENT—Continued

Item No.	Item	International voyage			Short international voyage		
		Lifeboat	Rigid life-raft (SOLAS A pack)	Rescue boat	Lifeboat	Rigid life-raft (SOLAS B pack)	Rescue boat
8	Drinking cup .....	1	1	.....	1	.....	.....
9	Fire extinguisher .....	1	.....	1	1	.....	1
10	First aid kit .....	1	1	1	1	1	1
11	Fishing kit .....	1	1	.....	.....	.....	.....
12	Flashlight .....	1	1	1	1	1	1
13	Hatchet .....	2	.....	.....	2	.....	.....
14	Heaving line .....	2	1	2	2	1	2
15	Instruction card .....	.....	1	.....	.....	1	.....
16	Jackknife .....	1	.....	.....	1	.....	.....
17	Knife <sup>14</sup> .....	.....	1	1	.....	1	1
18	Ladder .....	1	.....	1	1	.....	1
19	Mirror, signalling .....	1	1	.....	1	1	.....
20	Oars, units <sup>56</sup> .....	1	.....	1	1	.....	1
	Paddles .....	.....	2	.....	.....	2	.....
21	Paddles .....	2	1	1	2	1	1
22	Provisions (units per person) .....	1	1	.....	.....	.....	.....
23	Pump <sup>7</sup> .....	.....	.....	1	.....	.....	1
24	Radar reflector .....	1	1	1	1	1	1
25	Rainwater collection device .....	1	.....	.....	1	.....	.....
26	Repair kit <sup>7</sup> .....	.....	.....	1	.....	.....	1
27	Sea anchor .....	1	2	1	1	2	1
28	Searchlight .....	1	.....	1	1	.....	1
29	Seasickness kit (units per person) .....	1	1	.....	1	1	.....
30	Signal, smoke .....	2	2	.....	2	1	.....
31	Signal, hand flare .....	6	6	.....	6	3	.....
32	Signal, parachute flare .....	4	4	.....	4	2	.....
33	Skates and fenders <sup>8</sup> .....	1	.....	1	1	.....	1
34	Sponge <sup>7</sup> .....	.....	2	2	.....	2	2
35	Survival instructions .....	1	1	.....	1	1	.....
36	Table of lifesaving signals .....	1	1	.....	1	1	.....
37	Thermal protective aids .....	10%	10%	10%	10%	10%	10%
38	Tool kit .....	1	.....	.....	1	.....	.....
39	Towline <sup>10</sup> .....	1	.....	1	1	.....	1
40	Water (liters per person) .....	3	1.5	.....	3	.....	.....
41	Whistle .....	1	1	1	1	1	1

**Notes:**

- <sup>1</sup> Each liferaft equipped for 13 persons or more must carry two of these items.
- <sup>2</sup> Not required for boats of self-bailing design.
- <sup>3</sup> Not required for inflated or rigid-inflated rescue boats.
- <sup>4</sup> A hatchet counts towards this requirement in rigid rescue boats.
- <sup>5</sup> Oars are not required on a free-fall lifeboat; a unit of oars means the number of oars specified by the boat manufacturer.
- <sup>6</sup> Rescue boats may substitute buoyant paddles for oars, as specified by the manufacturer.
- <sup>7</sup> Not required for a rigid rescue boat.
- <sup>8</sup> Required if specified by the boat manufacturer.
- <sup>9</sup> Sufficient thermal protective aids are required for at least 10% of the persons the survival craft is equipped to carry, but not less than two.
- <sup>10</sup> Required only if the lifeboat is also the rescue boat.

**§ 199.176 Markings on lifesaving appliances.**

(a) *Lifeboats and rescue boats.* Each lifeboat and rescue boat must be plainly marked as follows:

- (1) Each side of each lifeboat and rescue boat bow must be marked in block capital letters and numbers with—
  - (i) The name of the vessel; and
  - (ii) The name of the port required to be marked on the stern of the vessel to meet the requirements of part 67, subpart 67.13 of this chapter.

(2) The length and beam of the boat and the number of persons for which the boat is equipped must be clearly marked, preferably on the bow, in permanent characters. The number of

persons for which the boat is equipped must not exceed the number of persons shown on its nameplate.

(3) The number of the boat and a means of identifying the vessel to which the boat belongs, such as the vessel's name, must be plainly marked or painted so that the markings are visible from above the boat.

(4) The Type II retro-reflective material approved under approval series 164.018 must be placed on the boat to meet the arrangement requirements in IMO Resolution A.658(16).

(b) *Rigid liferafts.* Each rigid liferaft must be marked as follows:

(1) The name of the vessel must be marked on each rigid liferaft.

(2) The name of the port required to be marked on the stern of the vessel to meet the requirements of part 67, subpart 67.13 of this chapter must be marked on each rigid liferaft.

(3) The rigid liferaft must be marked with the words "SOLAS A pack" or "SOLAS B pack", to reflect the pack inside.

(4) The length of the painter must be marked on each rigid liferaft.

(5) At each entrance of each rigid liferaft, the number of persons for which the rigid liferaft is equipped must be marked in letters and numbers at least 100 millimeters (4 inches) high and in a color contrasting to that of the liferaft. The number of persons for which the

liferaft is equipped must not exceed the number of persons shown on its nameplate.

**§ 199.178 Marking of stowage locations.**

(a) Containers, brackets, racks, and other similar stowage locations for lifesaving equipment must be marked with symbols in accordance with IMO Resolution A.760(18) indicating the device stowed in that location.

(b) If more than one device is stowed in a location, the number of devices stowed must be indicated.

(c) Survival craft should be numbered consecutively starting from the vessel's bow. Survival craft on the starboard side should be numbered with odd numerals and survival craft on the port side should be numbered with even numerals.

(d) Each liferaft stowage location should be marked with the capacity of the liferaft stowed there.

**§ 199.180 Training and drills.**

(a) *Training materials.* Training material must be on board each vessel and must consist of a manual of one or more volumes written in easily understood terms and illustrated wherever possible, or of audiovisual training aids, or of both as follows:

(1) If a training manual is used, a copy must be in each crew messroom and recreation room or in each crew cabin. If audiovisual training aids are used, they must be incorporated into the onboard training sessions described in paragraph (g) of this section.

(2) The training material must explain in detail—

(i) The procedure for donning lifejackets, immersion suits, and anti-exposure suits carried on board;

(ii) The procedure for mustering at the assigned stations;

(iii) The procedure for boarding, launching, and clearing the survival craft and rescue boats;

(iv) The method of launching from within the survival craft;

(v) The procedure for releasing survival craft from launching appliances;

(vi) The methods and use of devices for protection in launching areas, where appropriate;

(vii) The illumination in the launching areas;

(viii) The use of all survival equipment;

(ix) The use of all detection equipment;

(x) With the assistance of illustrations, the use of radio lifesaving appliances;

(xi) The use of sea anchors;

(xii) The use of the survival craft engine and accessories;

(xiii) The recovery of survival craft and rescue boats, including stowage and securing;

(xiv) The hazards of exposure and the need for warm clothing;

(xv) The best use of the survival craft for survival;

(xvi) The methods of retrieval, including the use of helicopter rescue gear such as slings, baskets, and stretchers; the use of breeches-buoy and shore lifesaving apparatus; and the use of the vessel's line-throwing apparatus;

(xvii) All other functions contained in the muster list and emergency instructions; and

(xviii) The instructions for emergency repair of the lifesaving appliances.

(b) *Familiarity with emergency procedures.* (1) Every crewmember with emergency duties assigned on the muster list must be familiar with their assigned duties before the voyage begins.

(2) On a vessel engaged on voyage when the passengers or special personnel are scheduled to be on board for more than 24 hours, musters of the passengers and special personnel must take place within 24 hours after their embarkation. Passengers and special personnel must be instructed in the use of the lifejackets and the action to take in an emergency.

(3) Whenever new passengers or special personnel embark, a safety briefing must be given immediately before sailing or immediately after sailing. The briefing must include the instructions required by § 199.80 and must be made by means of an announcement in one or more languages likely to be understood by the passengers and special personnel. The announcement must be made on the vessel's public address system or by other equivalent means likely to be heard by the passengers and special personnel who have not yet heard it during the voyage. The briefing may be included in the muster required by paragraph (b)(2) of this section if the muster is held immediately upon departure. Information cards or posters, or video programs displayed on the vessel video displays, may be used to supplement the briefing, but may not be used to replace the announcement.

(c) *Drills—general.* (1) Drills must, as far as practicable, be conducted as if there were an actual emergency.

(2) Every crewmember must participate in at least one abandon-ship drill and one fire drill every month. The drills of the crew must take place within 24 hours of the vessel leaving a port if more than 25 percent of the crew have not participated in abandon-ship and

fire drills on board that particular vessel in the previous month.

(3) Drills must be held before sailing when a vessel enters service for the first time, after modification of a major character, or when a new crew is engaged.

(4) The OCMI may accept other equivalent drill arrangements for those classes of vessels for which compliance with this paragraph is impracticable.

(d) *Abandon-ship drills.* (1) Abandon-ship drills must include—

(i) Summoning persons on board to muster stations with the general alarm followed by drill announcements on the public address or other communication system and ensuring that the persons on board are made aware of the order to abandon ship;

(ii) Reporting to stations and preparing for the duties described in the muster list;

(iii) Checking that persons on board are suitably dressed;

(iv) Checking that lifejackets or immersion suits are correctly donned;

(v) Lowering of at least one lifeboat after any necessary preparation for launching;

(vi) Starting and operating the lifeboat engine; and

(vii) Operating davits used for launching the liferafts.

(2) Abandon-ship drills should also include conducting a mock search and rescue of passengers or special personnel trapped in their staterooms, and giving instructions in the use of radio lifesaving appliances.

(3) Different lifeboats must, as far as practicable, be lowered to comply with the requirements of paragraph (d)(1)(v) of this section at successive drills.

(4) Except as provided in paragraphs (d)(5) and (d)(6) of this section, 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.

(5) Lowering into the water, rather than launching of a lifeboat arranged for free-fall launching, is acceptable when free-fall launching is impracticable, provided that the lifeboat is free-fall launched with its assigned operating crew aboard and is maneuvered in the water at least once every 6 months.

However, when compliance with the 6-month requirement is impracticable, the OCMI may extend this period to 12 months, provided that arrangements are made for simulated launching at intervals of not more than 6 months.

(6) The OCMI may exempt a vessel operating on short international voyages from the requirement to launch the lifeboats on both sides of the vessel if



berthing arrangements in port and operations do not permit launching of lifeboats on one side. However, all lifeboats on the vessel must be lowered at least once every 3 months and launched at least annually.

(7) As far as is reasonable and practicable, rescue boats, other than lifeboats which are also rescue boats, must be launched with their assigned crew aboard and maneuvered in the water each month. Such launching and maneuvering must occur at least once every 3 months.

(8) 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 in sheltered waters only and be under the supervision of an officer experienced in such drills.

(9) If a vessel is fitted with marine evacuation systems, drills must include an exercising of the procedures required for the deployment of such a system up to the point immediately preceding actual deployment of the system. This aspect of drills should be augmented by regular instruction using the on board training aids. Additionally, every crewmember assigned to duties involving the marine evacuation system must, as far as practicable, participate in a full deployment of a similar system into water, either on board a vessel or ashore, every 2 years but not longer than every 3 years. This training may be associated with the deployments required by § 199.190(k).

(10) Emergency lighting for mustering and abandonment must be tested at each abandon-ship drill.

(11) If a vessel carries immersion suits or anti-exposure suits, the suits must be worn by crewmembers in at least one abandon-ship drill per month. If wearing the suits is impracticable due to warm weather, the crewmembers must be instructed on their donning and use.

(12) If a vessel carries immersion suits for persons other than the crew, the abandon-ship drill must include instruction to these persons on the stowage, donning, and use of the suits.

(e) *Line-throwing appliance.* A drill must be conducted on the use of the line-throwing appliance at least once every 3 months. The actual firing of the appliance is at the discretion of the master.

(f) *Fire drills.* (1) Fire drills must, as far as practicable, be planned with due consideration given to the various emergencies that may occur for that type of vessel and its cargo.

(2) Each fire drill must include—

(i) Reporting to stations and preparing for the duties described in the station

bill for the particular fire emergency being simulated;

(ii) Starting of fire pumps and the use of two jets of water to determine that the system is in proper working order;

(iii) Checking the firemen's outfits and other personal rescue equipment;

(iv) Checking the relevant communications equipment;

(v) Checking the operation of watertight doors, fire doors, and fire dampers and main inlets and outlets of ventilation systems in the drill area; and

(vi) Checking the necessary arrangements for subsequent abandonment of the vessel.

(3) The equipment used during drills must immediately be brought back to its fully operational condition. Any faults and defects discovered during the drills must be remedied as soon as possible.

(g) *Onboard training and instruction.*

(1) Onboard training in the use of the vessel's lifesaving appliances, including survival craft equipment, and in the use of the vessel's fire-extinguishing appliances must be given as soon as possible but not later than 2 weeks after a crewmember joins the vessel.

(2) If the crewmember is on a regularly scheduled rotating assignment to the vessel, the training required in paragraph (g)(1) of this section need be given only within 2 weeks of the time the crewmember first joins the vessel.

(3) The crew must be instructed in the use of the vessel's fire-extinguishing and lifesaving appliances and in survival at sea at the same interval as the drills. Individual units of instruction may cover different parts of the vessel's lifesaving and fire-extinguishing appliances, but all the vessel's lifesaving and fire-extinguishing appliances must be covered within any period of 2 months.

(4) Every crewmember must be given instructions that include, but are not limited to—

(i) The operation and use of the vessel's inflatable liferafts;

(ii) The problems of hypothermia, first aid treatment for hypothermia, and other appropriate first aid procedures;

(iii) Any special instructions necessary for use of the vessel's lifesaving appliances in severe weather and severe sea conditions; and

(iv) The operation and use of fire-extinguishing appliances.

(5) 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 training 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.

(h) *Records.* (1) When musters are held, details of abandon-ship drills, fire drills, drills of other lifesaving appliances, and onboard training must be recorded in the vessel's official logbook. Logbook entries must include—

(i) The date and time of the drill, muster, or training session;

(ii) The survival craft and fire-extinguishing equipment used in the drills;

(iii) Identification of inoperative or malfunctioning equipment and the corrective action taken;

(iv) Identification of crewmembers participating in drills or training sessions; and

(v) The subject of the onboard training session.

(2) If a full muster, drill, or training session is not held at the appointed time, an entry must be made in the logbook stating the circumstances and the extent of the muster, drill, or training session held.

#### § 199.190 Operational readiness, maintenance, and inspection of lifesaving equipment.

(a) *Operational readiness.* Before the vessel leaves port and at all times during the voyage, each lifesaving appliance must be in working order and ready for immediate use.

(b) *Maintenance.* (1) The manufacturer's instructions for onboard maintenance of lifesaving appliances must be on board the vessel. The following must be provided for each appliance.

(i) Checklists for use when carrying out the inspections required under paragraph (e) of this section.

(ii) Maintenance and repair instructions.

(iii) A schedule of periodic maintenance.

(iv) A diagram of lubrication points with the recommended lubricants.

(v) A list of replaceable parts.

(vi) A list of sources of spare parts.

(vii) A log of records of inspections and maintenance.

(2) In lieu of compliance with paragraph (b)(1) of this section, the OCM may accept a shipboard planned maintenance program that includes the items listed in that paragraph.

(c) *Spare parts and repair equipment.* Spare parts and repair equipment must be provided for each lifesaving appliance and component that is subject to excessive wear or consumption and that needs to be replaced regularly.

(d) *Weekly inspections and tests.* (1) Each survival craft, rescue boat, and

launching appliance must be visually inspected to ensure its readiness for use.

(2) Each lifeboat engine and rescue boat engine must be run ahead and astern for not less than 3 minutes, unless the ambient temperature is below the minimum temperature required for starting the engine. During this time, demonstrations should indicate that the gear box and gear box train are engaging satisfactorily. If the special characteristics of an outboard motor fitted to a rescue boat do not allow the outboard motor to be run for a period of 3 minutes other than with its propeller submerged, the outboard motor should be run for such period as prescribed in the manufacturer's handbook.

(3) The general alarm system must be tested.

(e) *Monthly inspections.* (1) Each lifesaving appliance, including lifeboat equipment, must be inspected monthly using the checklists required under paragraph (b)(1)(i) of this section to make sure the appliance and the equipment are complete and in good working 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.

(2) 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.

(f) *Annual inspections.* Annual inspections must include the following:

(1) Each survival craft, except for inflatable craft, must be stripped, cleaned, and thoroughly inspected and repaired, as needed, at least once each year and each fuel tank must be emptied, cleaned, and refilled with fresh fuel.

(2) Each davit, winch, fall, and other launching appliance must be thoroughly inspected and repaired, as needed, once each year.

(3) Each item of survival equipment with an expiration date must be replaced during the annual inspection if the expiration date has passed.

(4) Each battery clearly marked with an expiration date and used in an item of survival equipment must be replaced during the annual inspection if the expiration date has passed.

(5) Except for a storage battery used in a lifeboat or rescue boat, each battery without an expiration date that is used in an item of survival equipment must be replaced during the annual inspection.

(g) *Servicing of inflatable lifesaving appliances, inflated rescue boats, and marine evacuation systems.*

(1) Each inflatable lifesaving appliance and marine evacuation system must be serviced—

(i) Within 12 months of its initial packing; and

(ii) 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.

(2) Each inflatable lifejacket must be serviced in accordance with servicing procedures meeting the requirements of part 160, subpart 160.176 of this chapter. Each hybrid inflatable lifejacket must be serviced in accordance with the owners manual and meet the requirements of part 160, subpart 160.077 of this chapter.

(3) Each inflatable liferaft must be serviced—

(i) In accordance with servicing procedures meeting the requirements of part 160, subpart 160.051 of this chapter; and

(ii) Whenever the container of the raft is damaged, or the straps or seal broken.

(4) Each inflated rescue boat must be repaired and maintained in accordance with the manufacturer's instructions. All repairs must be made at a servicing facility approved by the Commandant (G-MSE), except for emergency repairs carried out on board the vessel.

(h) *Periodic servicing of hydrostatic release units.* Each hydrostatic release unit, other than a disposable hydrostatic release unit, must be serviced in accordance with repair and testing procedures meeting the requirements of part 160, subpart 160.062 of this chapter—

(1) Within 12 months of its manufacture; 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.

(i) *Periodic servicing of launching appliances and release gear.* (1) Launching appliances must be serviced at the intervals recommended in the manufacturer's instructions or as set out in the shipboard planned maintenance program.

(2) Launching appliances must be thoroughly examined at intervals not exceeding 5 years and, upon completion of the examination, the launching appliance must be subjected to a dynamic test of the winch brake.

(3) Lifeboat and rescue boat release gear must be serviced at the intervals recommended in the manufacturer's instructions, or as set out in the

shipboard-planned-maintenance program.

(4) Lifeboat and rescue boat release gear must be subjected to a thorough examination by properly trained personnel familiar with the system at each inspection for certification.

(5) Lifeboat and rescue boat release gear must be operationally tested under a load of 1.1 times the total mass of the lifeboat when loaded with its full complement of persons and equipment whenever overhauled or at least once every 5 years.

(j) *Maintenance of falls.* (1) Each fall used in a launching appliance must—

(i) Be turned end-for-end at intervals of not more than 30 months; and

(ii) Be renewed when necessary due to deterioration or at intervals of not more than 5 years, whichever is earlier.

(2) As an alternative to paragraph (j)(1) of this section, each fall may—

(i) Be inspected annually; and

(ii) Be renewed whenever necessary due to deterioration or at intervals of not more than 4 years, whichever is earlier.

(k) *Rotational deployment of marine evacuation systems.* In addition, to or in conjunction with, the servicing intervals of marine evacuation systems required by paragraph (g)(1) of this section, each marine evacuation system must be deployed from the vessel on a rotational basis. Each marine evacuation system must be deployed at least once every 6 years.

### Subpart C—Additional Requirements for Passenger Vessels

#### § 199.200 General.

Passenger vessels and special purpose vessels described in § 199.10(f), must meet the requirements in this subpart in addition to the requirements in subparts A and B of this part.

#### § 199.201 Survival craft.

(a) Each survival craft must be approved and equipped as follows:

(1) Each lifeboat must be approved under approval series 160.135 and equipped as specified in table 199.175 of this part.

(2) Each inflatable liferaft must be approved under approval series 160.151 and equipped with—

(i) A SOLAS A pack; or

(ii) For a passenger vessel on a short international voyage, a SOLAS B pack.

(3) Each rigid liferaft must be approved under approval series 160.118 and equipped as specified in table 199.175 of this part.

(4) Each marine evacuation system must be approved under approval series 160.175.

(5) Each liferaft must have a capacity of six persons or more.

(b) Each passenger vessel must carry the following:

(1) A combination of lifeboats and liferafts that have an aggregate capacity sufficient to accommodate the total number of persons on board, provided that—

(i) On each side of the vessel, lifeboats with an aggregate capacity sufficient to accommodate at least 37.5 percent of the total number of persons on board are carried; and

(ii) Any liferafts that are provided in combination with the lifeboats are served by launching appliances or marine evacuation systems equally distributed on each side of the vessel.

(2) In addition to the survival craft required in paragraph (b)(1) of this section, additional liferafts must be provided that have an aggregate capacity sufficient to accommodate at least 25 percent of the total number of persons on board. The additional liferafts—

(i) Must be served by at least one launching appliance or marine evacuation system on each side of the vessel. These launching appliances or marine evacuation systems must be those described under paragraph (b)(1)(ii) of this section or be equivalent approved appliances capable of being used on both sides of the vessel; and

(ii) Are not required to be stowed in accordance with § 199.130(c)(4).

(c) Each passenger vessel engaged on a short international voyage that also complies with the standards of subdivision requirements for vessels on short international voyages as described in subchapter S of this chapter may, as an alternative to the lifeboat requirements in paragraph (b)(1)(i) of this section, carry lifeboats with an

aggregate capacity sufficient to accommodate at least 30 percent of the total number of persons on board. These lifeboats must be equally distributed, as far as practicable, on each side of the vessel.

(d) Each passenger vessel that is less than 500 tons gross tonnage and is certificated to permit less than 200 persons on board is not required to meet the requirements of paragraphs (b) or (c) of this section if it meets the following:

(1) On each side of the vessel—

(i) Liferafts are carried with an aggregate capacity sufficient to accommodate the total number of persons on board and are stowed in a position providing for easy side-to-side transfer at a single open deck level; or

(ii) Liferafts are carried with an aggregate capacity sufficient to accommodate 150 percent of the total number of persons on board. If the rescue boat required under § 199.202 is also a lifeboat, its capacity may be included to meet the aggregate capacity requirement.

(2) If the largest survival craft on either side of the vessel is lost or rendered unserviceable, there must be survival craft available for use on each side of the vessel, including those which are stowed in a position providing for side-to-side transfer at a single open deck level, with a capacity sufficient to accommodate the total number of persons on board.

**§ 199.202 Rescue boats.**

(a) Each passenger vessel of 500 tons gross tonnage and over must carry on each side of the vessel at least one rescue boat approved under approval

series 160.156 that is equipped as specified in table 199.175 of this part.

(b) Each passenger vessel of less than 500 tons gross tonnage must carry at least one rescue boat approved under approval series 160.156 that is equipped as specified in table 199.175 of this part.

(c) A lifeboat is accepted as a rescue boat if, in addition to being approved under approval series 160.135, it is also approved under approval series 160.156.

**§ 199.203 Marshalling of liferafts.**

(a) Each passenger vessel 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 on board have been launched.

(b) A passenger vessel engaged on a short international voyage that also complies with the standards of subdivision requirements for vessels on short international voyages as described in subchapter S of this chapter may have 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 on board have been launched.

**§ 199.211 Lifebuoys.**

(1) Each passenger vessel must carry the number of lifebuoys prescribed in table 199.211 of this section.

TABLE 199.211.—REQUIREMENTS FOR LIFEBOUYS FOR PASSENGER VESSELS

Length of vessel in meters (feet)	Minimum number of lifebuoys
Under 60 (196)	8
60(196) and under 120(393)	12
120(393) and under 180 (590)	18
180 (590) and under 240 (787)	24
240 (787) and over	30

(b) Notwithstanding § 199.70(a)(3)(ii), each passenger vessel under 60 meters (196 feet) in length must carry at least six lifebuoys with self-igniting lights.

**§ 199.212 Lifejackets.**

(a) In addition to the lifejackets required under § 199.70(b), each passenger vessel must carry lifejackets for at least 5 percent of the total number of persons on board. These lifejackets

must be stowed in conspicuous places on deck or at muster stations.

(b) Where lifejackets for persons other than the crew are stowed in staterooms located remotely from direct routes between public spaces and muster stations, any additional lifejackets required by § 199.70(b)(2)(v) for these persons must be stowed in the public spaces, near muster stations, or on direct routes between them. These

lifejackets must be stowed so that their distribution and donning does not impede orderly movement to muster stations and survival craft embarkation stations.

**§ 199.214 Immersion suits and thermal protective aids.**

(a) Each passenger vessel must carry at least three immersion suits approved under approval series 160.171 for each lifeboat on the vessel.

(b) In addition to the requirements in paragraph (a) of this section, each passenger vessel must carry a thermal protective aid approved under approval series 160.174 for each person not provided with an immersion suit.

(c) The immersion suits and thermal protective aids required under paragraphs (a) and (b) of this section are not required if the passenger vessel operates only on routes between 32 degrees north and 32 degrees south latitude.

**§ 199.217 Muster list and emergency instructions.**

(a) The format of each passenger vessel muster list required under § 199.80 must be approved by the OCMI.

(b) The passenger vessel muster list or emergency instructions must include procedures for locating and rescuing persons other than the crew who may be trapped in their staterooms.

(c) As an alternative to the requirements in § 199.80(c), the passenger vessel emergency instructions may meet the requirements of MSC Circular 699 (Guidelines for Passenger Safety Instructions).

**§ 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 positions or from a position where, as described under § 199.130(b)(4), 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) To meet the requirements of § 199.130(b)(1), each lifeboat on a passenger vessel of 80 meters (262 feet) in length and upwards must be stowed where the after-end of the lifeboat is at least 1.5 times the length of the lifeboat forward of the vessel's propeller.

(b) The stowage height of a survival craft must take into account the vessel's escape provisions, the vessel's size, and

the weather conditions likely to be encountered in the vessel's intended area of operation.

(c) The height of the davit head of each davit when it is in position to launch the survival craft should, as far as practicable, not exceed 15 meters (49 feet) to the waterline when the vessel is in its lightest seagoing condition.

**§ 199.240 Muster stations.**

Each passenger vessel must, in addition to meeting the requirements of § 199.110, have muster stations that—

(a) Are near the embarkation stations, unless a muster station is also an embarkation station;

(b) Permit ready access to the embarkation station, unless a muster station is also an embarkation station; and

(c) Have sufficient room to marshal and instruct passengers and special personnel.

**§ 199.245 Survival craft embarkation and launching arrangements.**

(a) Each 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 on board must be capable of being launched with the survival crafts' full complement of persons and equipment within a period of 30 minutes from the time the abandon-ship signal is given.

**§ 199.250 Drills.**

(a) An abandon-ship drill and a fire drill, as described in § 199.180, must be conducted on each passenger vessel at least weekly.

(b) The entire crew does not have to be involved in every drill, but each crewmember must participate in an abandon-ship drill and a fire drill each month.

(c) Passengers and special personnel must be strongly encouraged to attend abandon-ship and fire drills.

**Subpart D—Additional Requirements for Cargo Vessels**

**§ 199.260 General.**

Cargo vessels and special purpose vessels, as described in § 199.10(g), must meet the requirements in this subpart in addition to the requirements in subparts A and B of this part.

**§ 199.261 Survival craft.**

(a) Each survival craft must be approved and equipped as follows:

(1) Each lifeboat must be a totally enclosed lifeboat approved under approval series 160.135 and equipped as specified in table 199.175 of this part.

(2) Each inflatable liferaft must be approved under approval series 160.151 and be equipped with a SOLAS A pack.

(3) Each rigid liferaft must be approved under approval series 160.118 and be equipped as specified in table 199.175 of this part.

(4) Each liferaft must have a capacity of six persons or more.

(5) Each marine evacuation system must be approved under approval series 160.175.

(b) Each cargo vessel must carry—

(1) On each side of the vessel, lifeboats with an aggregate capacity sufficient to accommodate the total number of persons on board; and

(2) Liferafts—

(i) With an aggregate capacity sufficient to accommodate the total number of persons on board and that are stowed in a position providing for easy side-to-side transfer at a single open deck level; or

(ii) With an aggregate capacity on each side sufficient to accommodate the total number of persons on board.

(c) A cargo vessel is not required to meet the requirements of paragraph (b) of this section if it carries—

(1) Lifeboats capable of being free-fall launched over the stern of the vessel that have an aggregate capacity sufficient to accommodate the total number of persons on board; and

(2) On each side of the vessel, liferafts with an aggregate capacity sufficient to accommodate the total number of persons on board with the liferafts on at least one side of the vessel being served by launching appliances or marine evacuation systems.

(d) Cargo vessels less than 85 meters (278 feet) in length, with the exception of tank vessels, are not required to meet paragraphs (b) or (c) of this section if they meet the following:

(1) On each side of the vessel—

(i) Liferafts are carried with an aggregate capacity sufficient to accommodate the total number of persons on board and are stowed in a position providing for easy side-to-side transfer at a single open deck level; or

(ii) Liferafts are carried with an aggregate capacity sufficient to accommodate 150 percent of the total number of persons on board. If the rescue boat required under § 199.262 is also a lifeboat, its capacity may be included to meet the aggregate capacity requirement.

(2) In the event the largest survival craft on either side of the vessel is lost or rendered unserviceable, there must be survival craft available for use on each side of the vessel, including those which are stowed in a position providing for side-to-side transfer at a

single open deck level, with a capacity sufficient to accommodate the total number of persons on board.

(e) Each cargo vessel on which the horizontal distance from the extreme end of the stem or stern of the vessel to the nearest end of the closest survival craft is more than 100 meters (328 feet) must carry, in addition to the liferafts required by paragraphs (b)(2) and (c)(2) of this section, a liferaft stowed as far forward or aft, or one as far forward and another as far aft, as is reasonable and practicable. The requirement for the liferaft to float free under § 199.130(c)(7) does not apply to a liferaft under this

paragraph, provided it is arranged for quick manual release.

(f) Each lifeboat on a tank vessel certificated to carry cargos that emit toxic vapors or gases must be approved as a lifeboat with a self-contained air support system or a fire-protected lifeboat.

(g) Each lifeboat must be approved as a fire-protected lifeboat if it is carried on a tank vessel certificated to carry cargos that have a flashpoint less than 60 °C as determined under ASTM D93-94.

**§ 199.262 Rescue boats.**

(a) Each cargo vessel must carry at least one rescue boat. Each rescue boat must be approved under approval series 160.156 and be equipped as specified in table 199.175 of this part.

(b) A lifeboat is accepted as a rescue boat if, in addition to being approved under approval series 160.135, it also is approved under approval series 160.156.

**§ 199.271 Lifebuoys.**

Each cargo vessel must carry the number of lifebuoys prescribed in table 199.271 of this section.

TABLE 199.271.—REQUIREMENTS FOR LIFEBOUYS ON CARGO VESSELS

Length of vessel in meters (feet)	Minimum number of lifebuoys
Under 100 (328)	8
100 (328) and under 150 (492)	10
150 (492) and under 200 (656)	12
200 (656) and over	14

**§ 199.273 Immersion suits.**

(a) Each cargo vessel must carry an immersion suit approved under approval series 160.171 of an appropriate size for each person on board.

(b) If watch stations, work stations, or work sites are remote from cabins, staterooms, or berthing areas and the immersion suits stowed in those locations, there must be, in addition to the immersion suits required under paragraph (a) of this section, enough immersion suits stowed at the watch stations, work stations, or work sites to equal the number of persons normally on watch in, or assigned to, those locations at any time.

(c) The immersion suits required under paragraphs (a) and (b) of this section are not required if the cargo vessel operates only on routes between 32 degrees north and 32 degrees south latitude.

(d) The immersion suits required under this section can be included to meet the requirements of § 199.70(c).

**§ 199.280 Survival craft embarkation and launching arrangements.**

(a) Each lifeboat must be arranged to be boarded and launched directly from the stowed position.

(b) 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 where, under § 199.130(b)(4), the liferaft is transferred before launching.

(c) Cargo vessels of 20,000 tons gross tonnage or more must carry lifeboats

that are capable of being launched, using painters if necessary, with the vessel making headway at speeds up to 5 knots in clam water.

(d) All survival craft required for abandonment by the total number of persons on board must be capable of being launched with their full complement of persons and equipment within 10 minutes from the time the abandon-ship signal is given.

(e) On a tank vessel carrying crude oil, product, chemicals, or liquefied gases, notwithstanding the requirements of § 199.150(b), each launching appliance, together with its lowering and recovery gear, must be arranged so that the fully equipped survival craft the launching appliance serves can be safely lowered on the lower side of the vessel at the angle of heel after damage calculated in accordance with—

(1) The International Convention for the Prevention of Pollution from Ships, 1973, as amended by the Protocol of 1978 (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, in the case of a chemical tanker; or

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

**§ 199.290 Stowage of survival craft.**

(a) To meet the requirements of § 199.130(b)(1), each lifeboat—

(1) On a cargo vessel 80 meters (262 feet) or more in length but less than 120

meters (393 feet) in length, must be stowed with the after-end of the lifeboat at a distance not less than one length of the lifeboat forward of the vessel's propeller; and

(2) On a cargo vessel 120 meters (393 feet) or more in length, must be stowed with the after end of the lifeboat not less than 1.5 times the length of the lifeboat forward of the vessel's propeller.

(b) On a tank vessel certificated to carry cargos that have a flashpoint less than 60 °C as determined under ASTM D93-94, each lifeboat or launching appliance of aluminum construction must be protected by a water spray system meeting the requirements of part 34, subpart 34.25 of this chapter.

(c) Other than the stowage position for the liferaft required under § 199.261(e), no stowage position or muster and embarkation station for a survival craft on a tank vessel may be located on or above a cargo tank, slop tank, or other tank containing explosives or hazardous liquids.

(d) Each lifeboat and davit-launched liferaft must be arranged to be boarded by its full complement of persons within 3 minutes from the time the instruction to board is given.

**Subpart E—Additional Requirements for Vessels Not Subject to SOLAS**

**§ 199.500 General.**

This subpart sets out requirements in addition to the requirements in subparts A, B, C, and D of this part applicable to vessels not subject to SOLAS.

**§ 199.510 EPIRB requirements.**

(a) Each vessel must carry a category 1 406 MHz satellite EPIRB meeting the requirements of 47 CFR part 80.

(b) When the vessel is underway, the EPIRB must be stowed in its float-free bracket with the controls set for automatic activation and be mounted in a manner so that it will float free if the vessel sinks.

**§ 199.520 Lifeboat requirements.**

When the vessel's lifeboats are used to carry persons to and from the vessel in a harbor or at an anchorage, the survival craft remaining on the vessel must have an aggregate capacity sufficient to accommodate all persons remaining on board.

**Subpart F—Exemptions and Alternatives for Vessels Not Subject to SOLAS**

**§ 199.600 General.**

This subpart sets out specific exemptions and alternatives to requirements in subparts A, B, C, D, and E of this part for vessels not subject to SOLAS.

**§ 199.610 Exemptions for vessels in specified services.**

(a) *All vessels.* Vessels operating in coastwise; Great Lakes; lakes, bays, and sounds; and rivers service are exempt from requirements in subparts A through E of this part as specified in this paragraph and in table 199.610(a) of this section.

(1) *Non-self propelled vessels.* Non-self propelled vessels need not meet the EPIRB requirement in § 199.510 and the

rescue boat requirements in §§ 199.202 or 199.262 if they are in tow, moored to or alongside a MODU or a self-propelled vessel, or moored to shore.

(2) *Vessels operating on short runs.* The distress signals requirement in § 199.60(c) need not be met if the vessel operates on a route with a duration of 30 minutes or less.

(3) *Vessels operating in shallow water.* The float-free link described in §§ 199.175(b)(21)(ii)(B) and 199.640(j)(4)(E) is not required if the vessel operates on a route on which the water depth is never more than the length of the painter.

(4) *Vessels operating in fresh water.* The survival craft fall renewal described in § 199.190(j) is not required if the vessel operates on a fresh water route and inspection shows that the falls are not damaged by corrosion.

TABLE 199.610(a).—EXEMPTIONS FOR ALL VESSELS IN SPECIFIED SERVICES

Section or paragraph in this part	Service			
	Coastwise	Great Lakes	Lakes, bays, and sounds	Rivers
199.60(c): Distress signals .....	Not Exempt	Not Exempt	Exempt	Exempt.
199.70(a)(3)(iii): Lifebuoys fitted with smoke signals .....	Exempt	Exempt	Exempt	Exempt.
199.70(b)(1)(i): Carriage of additional child-size lifejackets .....	(1)	(1)	(1)	(1).
199.70(b)(4)(i): Lifejacket lights .....	(2)	(2)	Exempt	Exempt.
199.70(b)(4)(ii): Lifejacket whistles .....	Exempt	Exempt	Exempt	Exempt.
199.70(c): Immersion suits for rescue boat crew members .....	Not Exempt	Not Exempt	Exempt	Exempt.
199.70(c)(4)(ii): Immersion suit whistles .....	Exempt	Exempt	Exempt	Exempt.
199.100(c)(1): Requirements for person-in-charge of survival craft .....	Not Exempt	Not Exempt	Not Exempt	Exempt.
199.100(d): Designation of second-in-command of survival craft .....	(3)	(3)	(3)	Exempt.
199.100(f): Embarkation ladders at launching stations .....	(4)	(4)	(4)	(4).
199.130(a)(4): Survival craft embarkation position .....	Not Exempt	Not Exempt	Exempt	Exempt.
199.170: Line-throwing appliance .....	Not Exempt	Exempt	Exempt	Exempt.
199.510: EPIRB requirement .....	(5)	(6)	Exempt	Exempt.

**Notes:**

(1) Exempt if the vessel does not carry persons smaller than the lower size limit of the lifejackets carried.

(2) Exempt if the vessel is a ferry or has no overnight accommodations.

(3) Exempt if the survival craft has a carrying capacity of less than 40 persons.

(4) Exempt if the distance is less than 3 meters (10 feet) from the embarkation deck to the water with the vessel in its lightest seagoing operating condition.

(5) Exempt if the vessel is a cargo vessel under 300 tons gross tonnage and operates on a route no more than 3 nautical miles from shore.

(6) Exempt if the vessel operates on a route no more than 3 nautical miles from shore.

(b) *Passenger vessels.* In addition to the exemptions in paragraph (a) of this section, passenger vessels operating in coastwise; Great Lakes; lakes, bays, and sounds; and rivers service are exempt from requirements in subparts A through E of this part as specified in table 199.610(b) of this section.

TABLE 199.610(b).—EXEMPTIONS FOR PASSENGER VESSELS IN SPECIFIED SERVICES

Section or paragraph in this part	Service			
	Coastwise	Great Lakes	Lakes, bays, and sounds	Rivers
199.203: Marshalling of liferafts .....	Not Exempt	Exempt	Exempt	Exempt.
199.211(b): Lights on lifebuoys .....	(1)	(1)	(1)	(1).
199.212(a): Carriage of additional five percent lifejackets .....	Exempt	Exempt	Exempt	Exempt.
199.214: Immersion suits and thermal protective aids in lifeboats .....	Not Exempt	Not Exempt	Exempt	Exempt.

**Note:**

<sup>1</sup> Exempt if the length of vessel is under 60 meters (197 feet) and there are self-igniting lights attached to at least one-half the required lifebuoys.

(c) *Cargo vessels.* In addition to the exemptions in paragraph (a) of this

section, cargo vessels operating in coastwise; Great Lakes; lakes, bays, and

sounds; and rivers service are exempt from requirements in subparts A

through E of this part as specified in table 199.610(c) of this section.

TABLE 199.610(c).—EXEMPTIONS FOR CARGO VESSELS IN SPECIFIED SERVICES

Section or paragraph in this part	Service				
	Oceans	Coastwise	Great Lakes	Lakes, Bays, and Sounds	Rivers
199.70(a)(3)(ii): Lights on lifebuoys .....	Not exempt	(1)	(1)	(1)	(1)
199.80(b): Muster list .....	(2)	(2)	(2)	(2)	(2)
199.262(a): Rescue boats .....	(2,3)	(3)	(3)	(3)	(3)
199.273: Immersion suits .....	Not exempt	Not exempt	Not exempt	Exempt	Exempt

**Notes:**

- <sup>1</sup> Exempt if the length of vessel is under 30 meters (99 feet).
- <sup>2</sup> Exempt if the vessel is under 500 tons gross tonnage.
- <sup>3</sup> Exempt if—(i) the OCMI determines the vessel is arranged to allow a helpless person to be recovered from the water. (ii) recovery of the helpless person can be observed from the navigating bridge; and (iii) the vessel does not regularly engage in operations that restrict its maneuverability.

**§ 199.620 Alternatives for all vessels in a specified service.** bays, and sounds; and rivers service the services specified in table 199.620(a) may comply with alternative of this section. (a) *General.* Vessels operating in oceans; coastwise; Great Lakes; lakes, requirements to subparts A through E of this part as described in this section for

TABLE 199.620(a).—ALTERNATIVE REQUIREMENTS FOR ALL VESSELS IN A SPECIFIED SERVICE

Section or paragraph in this part	Service and reference to alternative requirement section or paragraph				
	Oceans	Coastwise	Great Lakes	Lakes, Bays and Sounds	Rivers
199.70(a): Lifebuoy approval series	199.620(b) <sup>1</sup> .....	199.620(b) <sup>1</sup> .....	199.620(b) .....	199.620(b) .....	199.620(b).
199.70(b): Lifejacket approval series.	199.620(c) <sup>2</sup> .....	199.620(c) <sup>2</sup> .....	199.620(c) .....	199.620(c) .....	199.620(c).
199.70(b)(1): Number of lifejackets carried.	No Alternative .....	199.620(d) .....	199.620(d) .....	199.620(d) .....	199.620(d).
199.70(b)(4)(i): Lifejacket light approval series.	No Alternative .....	199.620(e) .....	199.620(e) .....	Not Applicable .....	Not Applicable.
199.110(f): Embarkation ladder .....	199.620(f) .....	199.620(f) .....	199.620(f) .....	199.620(f) .....	199.620(f).
199.130(b): Survival craft stowage position.	No Alternative .....	No Alternative .....	199.625(g) .....	199.625(g) .....	199.625(g).
199.170: Line-throwing appliance approval series.	199.620(h) <sup>2</sup> .....	199.620(h) <sup>3</sup> .....	Not Applicable .....	Not Applicable .....	Not Applicable.
199.201(a)(2) or .261(a)(2): Inflatable liferaft equipment.	199.620(l) <sup>4</sup> .....	199.620(l) .....	199.620(l) .....	199.620(l) .....	199.620(l).
199.175: Lifeboat, rescue boat, and rigid liferaft equipment.	199.620(i) <sup>4</sup> .....	199.620(i) .....	199.620(j) .....	199.620(j) .....	199.620(j).
199.201(a)(2) and 199.261: Liferaft approval series.	No Alternative .....	199.620(k) .....	199.620(k) .....	199.620(k) .....	199.620(k).
199.510: EPIRB requirement .....	199.620(m)(1) .....	199.620(m)(1) .....	199.620(m) .....	Not Applicable .....	Not Applicable.
199.190(c): Spares and repair equipment.	199.620(n) .....	199.620(n) .....	199.620(n) .....	199.620(n) .....	199.620(n).

**Notes:**

- <sup>1</sup> Alternative applies if lifebuoy is orange.
- <sup>2</sup> Alternative applies only to cargo vessels that are less than 500 tons gross tonnage.
- <sup>3</sup> Alternative applies to cargo vessels that are less than 500 tons gross tonnage and to all passenger vessels.
- <sup>4</sup> Alternative applies to passenger vessels limited to operating no more than 50 nautical miles from shore.

(b) *Lifebuoy approval series.* As an alternative to a lifebuoy approved under approval series 160.150, vessels may carry a lifebuoy approved under approval series 160.050.

(c) *Lifejackets approval series.* As an alternative to a lifejacket meeting the approval requirements in § 199.70, vessels may carry a lifejacket approved under approval series 160.002, 160.005, 160.055, or 160.077.

(d) *Lifejacket quantity.* Vessels may carry lifejackets as follows:

(1) If lifejackets are stowed in cabins, staterooms, or berthing areas that are readily accessible to each watch or work station, the requirement in § 199.70(b)(2)(iv) to have lifejackets at each watch or work station need not be met.

(2) If the vessel carries lifejackets that are designated extended-size, then the number of child-size lifejackets carried

to meet § 199.70(b)(1)(i) may be reduced. To take the reduction in child-size lifejackets, extended-size lifejackets having the same lower size limit must be substituted for all of the required adult lifejackets. The number of child-size lifejackets required depends on the lower size limit of the extended-size lifejackets and is calculated by any one of the following formulas where PC is the number of child-size lifejackets expressed as a percentage of the number

of lifejackets required under § 199.70(b)(1):

(i)  $PC=LS\div 4.1$ , where LS equals the lower size limit expressed in kilograms.

(ii)  $PC=LS\div 9$ , where LS equals the lower size limit expressed in pounds.

(iii)  $PC=(LS - 81)\div 7.6$ , where LS equals the lower size limit expressed in centimeters.

(iv)  $PC=(LS - 32)\div 3$ , where LS equals the lower size limit expressed in inches.

(e) *Lifejacket light approval series.* As an alternative to lights approved under approval series 161.112, vessels may use lights for lifejackets and immersions suits approved under series 161.012. Chemiluminescent-type lifejacket lights approved under approval series 161.012 are not permitted on vessels certificated to operate on waters where water

temperature may drop below 10 °C (50 °F).

(f) *Embarkation ladder.* An embarkation ladder may be a chain ladder approved under approval series 160.017.

(g) *Survival craft stowage positions.* Vessels having widely separated accommodation and service spaces may have, as an alternative to the requirements of § 199.130(b), all required lifeboats and 50 percent of the required liferafts stowed as close as possible to the accommodation and service space that normally holds the greatest number of persons, with the remainder of the liferafts stowed as close as possible to each other accommodation and service space.

(h) *Line-throwing appliance approval series.* As an alternative to a line-

throwing appliance that meets the requirements in § 199.170, vessels may carry a line-throwing appliance approved under approval series 160.031, which may have an auxiliary line that is at least 150 meters (500 feet).

(i) *Lifeboat, rescue boat, and rigid liferaft equipment; oceans and coastwise.* Lifeboats, rescue boats, and rigid liferafts may carry the equipment specified in table 199.175 of this part for vessels on a short international voyage.

(j) *Lifeboat, rescue boat, and rigid liferaft equipment; other services.* As an alternative to meeting the survival craft equipment requirements of § 199.175, a vessel may carry the equipment specified in table 199.620(j) of this section under the vessel's category of service. Each item in the table has the same description as in § 199.175.

TABLE 199.620(j).—SURVIVAL CRAFT EQUIPMENT

Item No.	Item	Great Lakes			Lakes, bays and sounds			Rivers		
		Lifeboat	Rigid life-raft	Rescue boat	Lifeboat	Rigid life-raft	Rescue boat	Lifeboat	Rigid life-raft	Rescue boat
1	Bailer <sup>1</sup> .....	1	1	1	1	1	1	.....	.....	.....
2	Bilge pump <sup>2</sup> .....	1	.....	.....	.....	.....	.....	.....	.....	.....
3	Boathook .....	1	.....	1	1	.....	1	.....	.....	1
4	Bucket <sup>3</sup> .....	1	.....	1	1	.....	.....	1	.....	.....
9	Fire extinguisher .....	1	.....	1	1	.....	1	1	.....	1
12	Flashlight .....	1	1	1	.....	.....	.....	.....	.....	.....
13	Hatchet .....	2	.....	.....	1	.....	.....	1	.....	.....
15	Instruction card .....	.....	1	.....	.....	1	.....	.....	1	.....
18	Ladder .....	1	.....	1	.....	.....	.....	.....	.....	.....
20	Oars, units <sup>4,5</sup> .....	1	.....	1	1	.....	1	1	.....	1
	Paddles .....	.....	2	.....	.....	2	.....	.....	2	.....
21	Painter .....	2	1	1	1	1	1	1	1	1
23	Pump <sup>6</sup> .....	.....	.....	1	.....	.....	1	.....	.....	1
26	Repair kit <sup>6</sup> .....	.....	.....	1	.....	.....	1	.....	.....	1
27	Sea anchor .....	1	2	1	.....	.....	.....	.....	.....	.....
28	Searchlight .....	1	.....	1	.....	.....	.....	.....	.....	.....
31	Signal, hand flare .....	6	6	.....	6	6	.....	.....	.....	.....
32	Signal, parachute flare .....	4	4	.....	.....	.....	.....	.....	.....	.....
33	Skates and fenders <sup>7</sup> .....	1	.....	1	1	.....	1	1	.....	1
34	Sponge <sup>6</sup> .....	.....	2	2	.....	2	2	.....	.....	.....
35	Survival instructions .....	1	1	.....	1	1	.....	.....	.....	.....
38	Tool kit .....	1	.....	.....	1	.....	.....	1	.....	.....
39	Towline <sup>8</sup> .....	1	.....	1	1	.....	1	1	.....	1

**Notes:**

- <sup>1</sup> Each liferaft approved for 13 persons or more must carry two of these items.
- <sup>2</sup> Not required for boats of self-bailing design.
- <sup>3</sup> Not required for inflated or rigid-inflated rescue boats.
- <sup>4</sup> Oars not required on a free-fall lifeboat; a unit of oars means the number of oars specified by the boat manufacturer.
- <sup>5</sup> Rescue boats may substitute buoyant paddles for oars, as specified by the manufacturer.
- <sup>6</sup> Not required for a rigid rescue boat.
- <sup>7</sup> Required if specified by the manufacturer.
- <sup>8</sup> Required only if the lifeboat is also the rescue boat.

(k) *Liferaft approval series.* As an alternative to liferafts that meet the requirements in §§ 199.201(a) and 199.261(a), vessels may—

(1) Carry inflatable liferafts approved under approval series 160.051; and

(2) Have liferafts with a capacity less than six persons.

(1) *Inflatable liferaft equipment.* As an alternative to the SOLAS A Pack,

vessels may have a SOLAS B Pack for each inflatable liferaft.

(m) *EPIRB requirements.* As an alternative to EPIRBs that meet the requirements in § 199.510, vessels may have the following:

(1) Until February 1, 1999, a Coast Guard-approved Class A EPIRB manufactured after October 1, 1988, and

installed on the vessel on or before October 1, 1996.

(2) Until February 1, 1999, two Class C EPIRBs installed on the vessel on or before October 1, 1996. Class C EPIRBs must be installed—

- (i) In a weathertight enclosure;
- (ii) In a readily accessible location;
- (iii) One on each side of the vessel;



(iv) If the vessel has two or more widely separated deckhouses, at separate deckhouses; and  
 (v) At or near a principal embarkation station.  
 (n) *Spare parts and repair equipment.* As an alternative to carrying spare parts and repair equipment as required in § 199.190(c), a vessel need not carry

spare parts and repair equipment if it operates daily out of a shore base where spare parts and repair equipment are available.  
**§ 199.630 Alternatives for passenger vessels in a specified service.**  
 (a) In addition to the alternatives for certain requirements in § 199.620,

passenger vessels operating in oceans; coastwise; Great Lakes; lakes, bays, and sounds; and rivers service may comply with alternative requirements to subparts A through C of this part as described in this section for the services specified in table 199.630(a) of this section.

TABLE 199.630(a).—ALTERNATIVE REQUIREMENTS FOR PASSENGER VESSELS IN A SPECIFIED SERVICE

Section or paragraph in this part	Service and reference to alternative requirement section or paragraph				
	Oceans	Coastwise	Great Lakes	Lakes, bays, and sounds	Rivers
199.60(c): Distress signals ..... 199.201(b): Number and type of survival craft carried.	No Alternative ..... 199.630(c) <sup>1</sup> .....	No Alternative ..... 199.630(c) or 199.630(d) <sup>2</sup> .	199.630(b) ..... 199.630(c) or 199.630(d) <sup>2</sup> or 199.630(e) or 199.630(f) <sup>2</sup> or 199.630(g) <sup>2,3</sup> or 199.630(h) <sup>4</sup> .	Not Applicable ..... 199.630(c) or 199.630(d) or 199.630(e) or 199.630(f) <sup>2</sup> or 199.630(g) <sup>2,3</sup> or 199.630(h) <sup>4</sup> .	Not Applicable. 199.630(c) or 199.630(d) or 199.630(e) or 199.630(f) or 199.630(g) or 199.630(h). <sup>4</sup>
199.202: Rescue boat approval series.	No Alternative .....	No Alternative .....	No Alternative .....	199.630(i) <sup>5</sup> .....	199.630(i).
19.203: Marshalling of liferafts 1992.211(a): Quantity of lifebuoys.	No Alternative ..... No Alternative .....	199.630(j) ..... 199.630(k) .....	Not Applicable ..... 199.630(k) .....	Not Applicable ..... 199.630(k) .....	Not Applicable. 199.630(k).

**Notes:**

- (1) Alternative applies if the vessel operates on a route no more than 50 nautical miles from shore.
- (2) Alternative applies if the vessel is a ferry or has no overnight accommodations.
- (3) Alternative applies during periods of the year the vessel operates in warm water.
- (4) Alternative applies if the vessel operates in shallow water not more than 3 miles from shore where the vessel cannot sink deep enough to submerge the topmost deck.
- (5) Alternative applies if the vessel operates on sheltered lakes or harbors.

(b) As an alternative to distress signals that meet the requirements of § 199.60, vessels may carry at least 12 hand red flare distress signals approved under approval series 160.021 or 160.121.

(c) As an alternative to the lifeboat capacity requirements of § 199.201(b)(1)(i), vessels may carry lifeboats with an aggregate capacity sufficient to accommodate not less than 30 percent of the total number of persons on board. These lifeboats must be equally distributed, as far as practicable, on each side of the vessel.

(d) As an alternative to the survival craft requirements of § 199.201(b), vessels may carry inflatable buoyant apparatus having an aggregate capacity, together with the capacities of any lifeboats, rescue boats, and liferafts carried on board sufficient to, accommodate the total number of persons on board. These inflatable buoyant apparatus must—

(1) Be served by launching appliances or marine evacuation systems evenly distributed on each side of the vessel if the embarkation deck is more than 3 meters (10 feet) above—

- (i) The waterline under normal operating conditions; or
- (ii) The equilibrium waterline after the vessel is subjected to the assumed

damage and subdivision requirements in part 171 of this chapter;

(2) Be stowed in accordance with the requirements of §§ 199.130 (a) and (c); and

(3) Be equipped in accordance with the requirements in table 199.640(j) of this part.

(e) As an alternative to the survival craft requirements of § 199.201(b), vessels may carry—

(1) Liferafts having an aggregate capacity, together with the capacities of any lifeboats carried on board, sufficient to accommodate the total number of persons on board that are served by launching appliances or marine evacuation systems evenly distributed on each side of the vessel; and

(2) In addition to the liferafts required in paragraph (e)(1) of this section, additional liferafts that have an aggregate capacity sufficient to accommodate at least 10 percent of the total number of persons, or equal to the capacity of the largest single survival craft on the vessel, whichever is the greater. The additional liferafts are not required to be stowed in accordance with § 199.130(c), but they must be served by at least one launching appliance or marine evacuation system on each side of the vessel.

(f) As an alternative to the survival craft requirements of § 199.201(b), vessels must have a safety assessment approved by the local OCMI that addresses the following:

(1) The navigation and vessel safety conditions within the vessel's planned operating area including—

(i) The scope and degree of the risks or hazards to which the vessel will be subject during normal operations;

(ii) The existing vessel traffic characteristics and trends, including traffic volume; the sizes and types of vessels involved; potential interference with the flow of commercial traffic; the presence of any unusual cargoes; and other similar factors;

(iii) The port and waterway configuration and variations in local conditions of geography, climate, and other similar factors; and

(iv) Environmental factors.

(2) A comprehensive shipboard safety management and contingency plan that is tailored to the particular vessel, is easy to use, is understood by vessel management personnel both on board and ashore, is updated regularly, and includes—

(i) Guidance to assist the vessel's crew in meeting the demand of catastrophic vessel damage;

(ii) Procedures to mobilize emergency response teams;

(iii) Procedures for moving passengers from the vessel's spaces to areas protected from fire and smoke, to embarkation areas, and off the vessel. The procedures must address provisions for passengers with physical or mental impairments;

(iv) Lifts of external organizations that the vessel's operator would call for assistance in the event of an incident;

(v) Procedures for establishing and maintaining communications on board the vessel and with shoreside contacts; and

(vi) Guidance on theoretical, practical, and actual simulation training that includes the personnel or organizations identified in the plan so they can practice their roles in the event of an incident.

(g) As an alternative to the survival craft requirements of § 199.201(b), vessels may carry inflatable buoyant apparatus having an aggregate capacity, together with the capacities of any lifeboats, rescue boats and liferafts carried on board, sufficient to accommodate 67 percent of the total number of persons on board. These inflatable buoyant apparatus must meet the arrangement requirements of §§ 199.630 (d)(1) through (d)(3).

(h) A vessel need not comply with the requirements for survival craft in § 199.201(b) if the vessel operates—

(1) On a route that is in shallow water not more than 3 miles from shore and the vessel cannot sink deep enough to submerge the topmost deck; or

(2) Where the cognizant OCMI determines that survivors can wade ashore.

(i) As an alternative to the rescue boat required in § 199.202, vessels may carry a rescue boat meeting the requirements of part 160, subpart 160.056 of this chapter if it is equipped with a motor and meets the following:

(1) The towline for the rescue boat must be at least the same size and length as the rescue boat painter.

(2) The rescue boat must meet the embarkation, launching, and recovery arrangement requirements in §§ 199.160 (b) through (f). The OCMI may allow deviations from the rescue boat launching requirements based on the characteristics of the boat and the conditions of the vessel's route.

(j) As an alternative to the requirements of § 199.203(a), a vessel that meets the subdivision requirements in § 171.068 of this chapter may meet the requirements of § 199.203(b).

(k) Vessels carrying lifebuoys may carry—

(1) The number of lifebuoys specified in table 199.630(k) of this section

instead of the number required in § 199.199.211; and

(2) If the vessel carries less than four lifebuoys, at least two with a self-igniting light attached to the lifebuoy. A buoyant lifeline may be fitted to one of the lifebuoys with a self-igniting light.

TABLE 199.630(k).—REQUIREMENTS FOR LIFEBOUYS

Length of vessel in meters (feet)	Minimum number of lifebuoys
Under 30 (98) .....	3
30 (98) and under 60 (196) .....	4
60 (196) and under 90 (297) .....	5
90 (297) and under 120 (393) .....	12
120 (393) and under 180 (590) ....	18
180 (590) and under 240 (787) ....	24
240 (787) and over .....	30

**§ 199.640 Alternatives for cargo vessels in a specified service.**

(a) In addition to the alternatives for certain requirements in § 199.620, cargo vessels operating in oceans; coastwise; Great Lakes; lakes, bays, and sounds; and rivers service may comply with alternative requirements to subparts A, B, and D of this part as described in this section for the services specified in table 199.640(a) of this section.

TABLE 199.640(a)—ALTERNATIVE REQUIREMENTS FOR CARGO VESSELS IN A SPECIFIED SERVICE

Section or paragraph in this part	Service or reference to alternative requirement section				
	Oceans	Coastwise	Great Lakes	Lakes, bays, and sounds	Rivers
199.60(c): Distress signals .....	199.640(b) <sup>1</sup> .....	199.640(b) <sup>1</sup> .....	199.640(b) <sup>1</sup> or 199.630(b).	Not Applicable .....	Not Applicable.
199.261: Number and type of survival craft carried.	199.640(c) <sup>6</sup> .....	199.640(c) <sup>6</sup> .....	199.640(c) <sup>2</sup> or 199.640(d) or 199.640(e) <sup>3</sup> or 199.640(f) <sup>4</sup> .	199.640(c) <sup>2</sup> or 199.640(d) or 199.640(e) <sup>3</sup> or 199.640(f) <sup>4</sup> .	199.640(c) or 199.640(d) or 199.640(e) <sup>3</sup> or 199.640(f) <sup>4</sup> .
199.262: Rescue boat substitution.	No Alternative .....	199.640(g) .....	199.640(g) .....	199.640(g) or 199.640(h) <sup>5</sup> .	199.640(g) or 199.640(h).
199.271: Lifebuoy quantity .....	No Alternative .....	199.640(i) .....	199.640(i) .....	199.640(i) .....	199.640(i).

**Notes:**

<sup>1</sup> Alternative applies to vessels less than 150 tons gross tonnage that do not carry passengers or persons in addition to the crew.

<sup>2</sup> Alternative applies to cargo vessels less than 85 meters in length, tank vessels less than 500 tons gross tonnage, and nonself-propelled vessels.

<sup>3</sup> Alternative applies during periods of the year that the vessel operates in warm water.

<sup>4</sup> Alternative applies if the vessel operates in shallow water not more than 3 miles from shore where the vessel cannot sink deep enough to submerge the topmost deck.

<sup>5</sup> Alternative applies if the vessel operates on sheltered lakes or harbors.

<sup>6</sup> Alternative applies to vessels less than 500 tons gross tonnage.

(b) Vessels of less than 150 tons gross tonnage that do not carry persons other than the crew, may carry, as an alternative to distress signals that meet the requirements of § 199.60, six hand red flare distress signals approved under approval series 160.021 and six hand

orange smoke distress signals approved under approval series 160.037.

(c) As an alternative to the survival craft requirements of §§ 199.261(b), (c), or (d), vessels may carry one or more liferafts with an aggregate capacity sufficient to accommodate the total

number of persons on board. The liferafts must be—

(1) Readily transferable for launching on either side of the vessel; or

(2) Supplemented with additional liferafts to bring the total capacity of the liferafts available on each side of the vessel to at least 100 percent of the total

number of persons on board. If additional liferafts are provided and the rescue boat required under § 199.262 is also a lifeboat, its capacity may be included in meeting the aggregate capacity requirement.

(d) As an alternative to the survival craft requirements in §§ 199.261 (b), (c), or (d), vessels may carry one or more totally enclosed lifeboats with an aggregate capacity sufficient to accommodate the total number of persons on board and one or more liferafts with an aggregate capacity sufficient to accommodate the total number of persons on board. This combination of survival craft must meet the following:

(1) The aggregate capacity of the lifeboats and liferafts on each side of the vessel must be sufficient to accommodate the total number of persons on board.

(2) If the survival craft are stowed more than 100 meters (328 feet from either the stem or the stern of the vessel, an additional liferaft must be carried and stowed as far forward or 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 the liferaft is arranged for quick manual release.

(e) As an alternative to the survival craft requirements in §§ 199.261 (b), (c), or (d), during periods of the year the vessel operates in warm water, a vessel may carry lifeboats with an aggregate capacity sufficient to accommodate the total number of people on board. The lifeboat launching arrangement, stowage, and equipment must meet the requirements in § 199.640(j).

(f) A vessel need not comply with the requirements for survival craft in §§ 199.261 (b), (c), or (d) if the vessel operates—

(1) On a route that is in shallow water not more than 3 miles from shore and where the vessel cannot sink deep enough to submerge the topmost deck; or

(2) Where the cognizant OCMI determines that survivors can wade ashore.

(g) As an alternative to the rescue boat requirement in § 199.262(a), vessels may carry a motor-propelled workboat or a launch that meets all the embarkation, launching, and recovery arrangement requirements in §§ 199.160 (b) through (f). The OCMI may allow deviations from the rescue boat launching requirements based on the characteristics of the boat and the conditions of the vessel's route.

(h) An alternative to the rescue boat requirement in § 199.262, vessels

may carry a rescue boat meeting the requirements of part 160, subpart 160.056 of this chapter if the rescue boat is equipped with a motor and meets the following:

(1) The towline for the rescue boat must be at least the same size and length as the rescue boat painter.

(2) The rescue boat must meet the embarkation, launching, and recovery arrangement requirements in §§ 199.160 (b) through (f). The OCMI may allow deviations from the rescue boat launching requirements based on the characteristics of the boat and the conditions of the vessel's route.

(i) As an alternative to the number of lifebuoys required in § 199.271, vessels may carry—

(1) If the vessel is self-propelled, the number of lifebuoys specified in table 199.640(i) of this section; or

(2) If the vessel is non self-propelled, one lifebuoy on each end of the vessel.

TABLE 199.640(i)—REQUIREMENTS FOR LIFEBOUYS

Length of vessel in meters (feet)	Minimum No. of Lifebuoys
Under 30 (98) .....	3
30 (98) and under 60 (196) .....	4
60 (196) and under 100 (328) .....	6
100 (328) and under 150 (492) .....	10
150 (492) and under 200 (656) .....	12
200 (256) and over .....	14

(j) *Vessels carrying buoyant apparatus, inflatable buoyant apparatus, or lifefloats.* Vessels carrying buoyant apparatus, inflatable buoyant apparatus, or lifefloats must meet the following:

(1) *General.* Each buoyant apparatus and inflatable buoyant apparatus must be approved under approval series 160.010. Each lifefloat must be approved under approval series 160.027.

(2) *Stowage.* Each buoyant apparatus, inflatable buoyant apparatus, or lifefloat must, in addition to meeting the general stowage requirements of § 199.130(a), be stowed as follows:

(i) Each inflatable buoyant apparatus must meet the liferaft stowage requirements in § 199.130(c).

(ii) Each buoyant apparatus and lifefloat must—

(A) Meet the liferaft stowage requirements in §§ 199.130(c) (1), (2), (3), (6), and (7); or

(B) Meet the liferaft stowage requirements in §§ 199.130(c) (1), (2), (3), and (6), and have lashings that can be easily released.

(iii) A painter must be secured to the buoyant apparatus or lifefloat by—

(A) The attachment fitting provided by the manufacturer; or

(B) A wire or line that encircles the body of the buoyant apparatus or lifefloat, that will not slip off, and that meets the requirements of paragraph (4)(iii) of this section.

(iv) If buoyant apparatus or lifefloats are arranged in groups with each group secured by a single painter—

(A) The combined mass of each group must not exceed 185 kilograms (407.8 pounds);

(B) Each buoyant apparatus or lifefloat must be individually attached to the group's single painter by its own painter, which must be long enough to allow the buoyant apparatus or lifefloat to float without contacting any other buoyant apparatus or lifefloat in the group;

(C) The strength of the float-free link and the strength of the group's single painter must be appropriate for the combined capacity of the group of buoyant apparatus or lifefloats;

(D) The group of buoyant apparatus or lifefloats must not be stowed in more than four tiers and, when stowed in tiers, the separate units must be kept apart by spacers; and

(E) The group of buoyant apparatus or lifefloats must be stowed to prevent shifting with easily detached lashings.

(3) *Marking.* Each buoyant apparatus or lifefloat must be marked plainly in block capital letters and numbers with the name of the vessel and the number of persons approved to use the device as shown on its nameplate.

(4) *Equipment.* Unless otherwise stated in this paragraph, each buoyant apparatus and lifefloat must carry the equipment listed in this paragraph and specified for it in table 199.640(j) of this section under the vessel's category of service.

(i) *Boathook.*

(ii) *Paddle.* Each paddle must be at least 1.2 meters (4 feet) long and buoyant.

(iii) *Painter.* The painter must—

(A) Be at least 30 meters (100 feet) long, but not less than three times the distance from the deck where the buoyant apparatus, inflatable buoyant apparatus, or lifefloats are stowed to the vessel's waterline with the vessel in its lightest seagoing condition;

(B) Have a breaking strength of at least 6.7 kiloNewtons (1,500 pounds-force), or if the capacity of the buoyant apparatus or lifefloat is 50 persons or more, have a breaking strength of at least 13.4 kiloNewtons (3,000 pounds-force);

(C) If made of a synthetic material, be of a dark color or be certified by the

manufacturer to be resistant to deterioration from ultraviolet light;

(D) Be stowed in such a way that it runs out freely when the buoyant apparatus or lifefloat floats away from the sinking vessel; and

(E) Have a float-free link meeting the requirements of part 160, subpart

160.073 of this chapter secured to the end of the painter that is attached to the vessel, that is of the proper strength for the size and number of the buoyant apparatus or lifefloats attached to the float-free link.

(iv) *Self-igniting light*. The self-igniting light must be approved under

approval series 161.010 and must be attached to the buoyant apparatus or lifefloat by a 12-thread manila or equivalent lanyard that is at least 5.5 meters (18 feet) long.

TABLE 199.640(j).—BUOYANT APPARATUS AND LIFEFLOAT EQUIPMENT

Item No.	Item	Oceans, coast-wise, and Great Lakes	Lakes, bays, sounds, and rivers
i	Boathook <sup>1</sup> .....	1	1
ii	Paddles <sup>1</sup> .....	2	2
iii	Painter .....	1	1
iv	Self-igniting light <sup>2</sup> .....	1	.....

**Notes:**

<sup>1</sup> Not required to be carried on buoyant apparatus.

<sup>2</sup> Not required to be carried on buoyant apparatus or life floats with a capacity of 24 persons or less.

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