

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

46 CFR Parts 108, 117, 133, 160, 164, 180, and 199

[Docket No. USCG–2010–0048]

RIN 1625–AB46

Lifesaving Equipment: Production Testing and Harmonization With International Standards

AGENCY: Coast Guard, DHS.

ACTION: Interim rule.

SUMMARY: The Coast Guard is amending its regulations for certain lifesaving equipment, including launching appliances (winches and davits), release mechanisms, survival craft (lifeboats, inflatable liferafts, and inflatable buoyant apparatuses), rescue boats, and automatic disengaging devices. The amended regulations harmonize the Coast Guard's design, construction, and performance standards for this lifesaving equipment with international standards. In addition, the regulations provide for the use of qualified independent laboratories, instead of Coast Guard inspectors, during the approval process and for production inspections of certain types of lifesaving equipment. Because the International Maritime Organization (IMO) has recently changed its international standards for lifeboat release mechanisms, the Coast Guard is issuing these amended regulations as an interim rule and will finalize the regulations after proposing amendments as necessary to address the recent IMO changes regarding release mechanisms. Additionally, recent IMO action modified the international standards for liferafts, and the Coast Guard is proposing new changes to its regulations to implement the modified international standards. The Coast Guard is publishing the proposal regarding liferafts separately in the Proposed Rules section of this issue of the **Federal Register**.

DATES: This interim rule is effective November 10, 2011. The Director of the Federal Register has approved the incorporation by reference of certain publications listed in this rule as of November 10, 2011.

ADDRESSES: Comments and material received from the public, as well as documents mentioned in this preamble as being available in the docket, are part of docket USCG–2010–0048 and are available for inspection or copying at the Docket Management Facility (M–30),

U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. You may also find this docket on the Internet by going to <http://www.regulations.gov>, inserting USCG–2010–0048 in the “Keyword” box, and then clicking “Search.”

Viewing incorporation by reference material. You may inspect the material incorporated by reference at U.S. Coast Guard Headquarters, 2100 Second Street, SW., Stop 7126, Washington, DC 20593–7126 between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays. The telephone number is 202–372–1385. Copies of the material are available as indicated in the “Incorporation by Reference” section of this preamble.

FOR FURTHER INFORMATION CONTACT: If you have questions on this rule, e-mail or call Mr. George Grills, P.E., Commercial Regulations and Standards Directorate, Office of Design and Engineering Standards, Lifesaving and Fire Safety Division (CG–5214), Coast Guard; telephone 202–372–1385, e-mail George.G.Grills@uscg.mil. If you have questions on viewing or submitting material to the docket, call Renee V. Wright, Program Manager, Docket Operations, telephone 202–493–0402.

SUPPLEMENTARY INFORMATION:

Table of Contents for Preamble

- I. Abbreviations
- II. Regulatory History
- III. Basis and Purpose
 - A. International Standards
 - B. Independent Laboratories
 - C. Other Revisions
- IV. Discussion of Comments and Changes
 - A. Discussion of Changes from the NPRM
 - B. Discussion of Comments on the NPRM
- V. Incorporation by Reference
- VI. Regulatory Analyses
 - A. Regulatory Planning and Review
 - B. Small Entities
 - C. Assistance for Small Entities
 - D. Collection of Information
 - E. Federalism
 - F. Unfunded Mandates Reform Act
 - G. Taking of Private Property
 - H. Civil Justice Reform
 - I. Protection of Children
 - J. Indian Tribal Governments
 - K. Energy Effects
 - L. International Trade Impacts
 - M. Technical Standards
 - N. Coast Guard Authorization Act Sec. 608 (46 U.S.C. 2118(a))
 - O. Environment

I. Abbreviations

- ASTM American Society for Testing and Materials
- CFR Code of Federal Regulations
- COLREG International Regulations for Preventing Collisions at Sea

- DHS Department of Homeland Security
- EPA Environmental Protection Agency
- FRP Fiber Reinforced Plastic
- GSA General Services Administration
- IMO International Maritime Organization
- ISO International Organization for Standardization
- LSA Life-saving Appliance
- MRA Mutual Recognition Agreement
- MSC Maritime Safety Committee of the International Maritime Organization
- NAICS North American Industry Classification System
- NEPA National Environmental Policy Act 1969 (42 U.S.C. 4321–4370f)
- NPRM Notice of Proposed Rulemaking
- NTTAA National Technology Transfer and Advancement Act (15 U.S.C. 272 note)
- OCMI Officer in Charge, Marine Inspection
- OIRA Office of Information and Regulatory Affairs
- OMB Office of Management and Budget
- SNPRM Supplemental Notice of Proposed Rulemaking
- SOLAS International Convention for Safety of Life at Sea, 1974, as amended
- § Section symbol
- UL Underwriters Laboratories
- U.S.C. United States Code
- USCG United States Coast Guard
- US/EC MRA Agreement between the United States and European Community on the mutual recognition of certification of conformity for marine equipment

II. Regulatory History

On August 31, 2010, the Coast Guard published a notice of proposed rulemaking (NPRM) titled “Lifesaving Equipment: Production Testing and Harmonization with International Standards” in the **Federal Register**. See 75 FR 53458. The comment period for the NPRM closed on November 29, 2010, and we received three letters in the docket, containing 29 comments, which are summarized and responded to below. No public meeting was requested for this rulemaking and we did not hold one.

The Coast Guard is promulgating these amended regulations as an interim rule, rather than as a final rule, because we plan to propose additional amendments as necessary to address recent changes to international standards regarding performance requirements for release mechanisms of lifeboats. In May 2011, the International Maritime Organization's (IMO) Maritime Safety Committee (MSC) amended its international standards regarding release mechanisms. These IMO amendments only affect release mechanisms with respect to their operating characteristics and a new requirement to use corrosion-resistant materials for certain critical components. These IMO amendments are presented in IMO Resolution MSC.320(89) “Adoption of amendments to the International Life-saving

Appliance (LSA) Code.” A copy of the IMO amendments are available from IMO and also upon request sent to Mr. Grills, as listed in **FOR FURTHER INFORMATION CONTACT**, above. The Coast Guard plans to publish in a future **Federal Register** document proposed changes to Coast Guard regulations to implement the IMO amendments the Coast Guard determines appropriate for purposes of harmonization and consistency with international standards. We will finalize this interim rule at the same time we issue any final rule for the forthcoming proposed changes to implement the IMO amendments.

Additionally, IMO also recently adopted two new resolutions that affect the interim rule regarding inflatable liferafts and inflatable buoyant apparatuses. The two new resolutions, Adoption of Amendments to the International Life-Saving Appliance (LSA) Code (MSC.293(87)) and Adoption of Amendments to the Revised Recommendation on Testing of Life-Saving Appliances (MSC.295(87)), affect capacity requirements for such liferafts, and by extension inflatable buoyant apparatuses, but do not affect any other part of the interim rule. The Coast Guard proposes changes to the interim rule to address these two new resolutions, and that proposal is published separately in this issue of the **Federal Register** as a Supplemental Notice of Proposed Rulemaking (SNPRM).

III. Basis and Purpose

The Coast Guard is charged with ensuring that lifesaving equipment used on vessels subject to inspection by the United States meets specific design, construction, and performance standards. See 46 U.S.C. 3306. The Coast Guard carries out this charge through the approval of lifesaving equipment per 46 CFR part 2, subpart 2.75. The approval process includes: Pre-approving lifesaving equipment designs, overseeing prototype construction, witnessing prototype testing, and monitoring production of the equipment for use on U.S. vessels. See 46 CFR part 159. At each phase of the approval process, the Coast Guard sets specific standards to which lifesaving equipment must be built and tested. Third parties, referred to as independent laboratories, sometimes assist the Coast Guard in its approval process by performing or witnessing tests and inspections, as well as witnessing production, as authorized by the Coast Guard. See, e.g., 46 CFR 160.151–13(a) (manufacturers must arrange for an independent laboratory to

inspect a prototype liferaft during fabrication). This rulemaking revises those specific standards for launching appliances, release mechanisms, survival craft, rescue boats, and automatic disengaging devices, and expands the use of independent laboratories in the Coast Guard’s approval process.

A. International Standards

International safety standards for the lifesaving equipment addressed by this rulemaking are established by the Parties to SOLAS, including the United States, acting through the IMO. The international standards for lifesaving equipment (IMO standards) addressed by this rulemaking implement the requirements of Chapter III of SOLAS. The IMO standards specify design, construction, performance, and testing requirements for required lifesaving equipment, including launching appliances, release mechanisms, survival craft, rescue boats, and automatic disengaging devices. The primary IMO standards implementing Chapter III of SOLAS are—

- International Life-saving Appliance Code (“LSA Code”) (IMO Resolution MSC.48(66), as amended by IMO Resolutions MSC.207(81), MSC.218(82), MSC.272(85), and MSC.293(87)); see SOLAS Chapter III, Regulation 4;¹ and
- Revised recommendation on testing of life-saving appliances (“Recommendation on Testing”) (IMO Resolution MSC.81(70), as amended by IMO Resolutions MSC.226(82), MSC.274(85), and MSC.295(87)); see SOLAS Chapter III, Regulation 4.²

The United States actively participated in the negotiations that led to the development of these IMO standards. The Coast Guard considers these IMO standards to represent the best available standards for lifesaving appliances and to be appropriate for lifesaving appliances for all vessels subject to inspection by the United States. In order to facilitate international commerce with other contracting governments to SOLAS that follow IMO standards, and to achieve the benefits of the increased safety of adhering to these

¹ As discussed above, IMO recently adopted IMO Resolution MSC.293(87). The only amendment to the LSA Code made by this resolution relevant to this rulemaking affects capacity requirements for inflatable life rafts and inflatable buoyant apparatuses. This amendment is discussed in more detail in the SNPRM.

² As discussed above, IMO recently adopted IMO Resolution MSC.295(87). The only amendment to the revised recommendation on testing made by this resolution relevant to this rulemaking affects tests, accounting for the change in capacity requirements, for inflatable liferafts and inflatable buoyant apparatuses. This amendment is discussed in more detail in the SNPRM.

IMO standards, the Coast Guard has, pursuant to 46 U.S.C. 3306 and 46 CFR 159.005–7(c), deemed compliance by U.S. flag ships with the IMO standards as compliance with Coast Guard domestic regulations.

In this interim rule, the Coast Guard harmonizes its regulations for certain lifesaving equipment with international standards by incorporating the IMO standards into regulations in 46 CFR part 160.

B. Independent Laboratories

The Coast Guard has a long history of recognizing the qualifications of independent laboratories, working under the Coast Guard’s oversight, to do work traditionally conducted by Coast Guard inspectors. In 1979, the Coast Guard promulgated 46 CFR part 159 establishing procedures and standards for accepting independent laboratories for witnessing or performing certain tests and conducting inspections for certain equipment and materials requiring Coast Guard approval. See 44 FR 73038 (December 17, 1979). The Coast Guard promulgated 46 CFR part 159 under the authority in 46 U.S.C. 481 (1976) (Regulations for vessels subject to Coast Guard inspection).³ In 1983, Congress revised and recodified the maritime laws of the United States moving the relevant authority for 46 CFR part 159 to new 46 U.S.C. 3306.⁴ See Public Law 98–89 Partial

³ In 1979, the authority for 46 CFR part 159 also included 46 U.S.C. 391, which covered “vessels carrying certain cargoes in bulk.” The broader authority under 46 U.S.C. 481 covered vessels subject to inspection and certification by the United States Coast Guard and directed “the Secretary of the Department in which the Coast Guard is operating * * * shall prescribe such rules and regulations as may be necessary for vessels subject to inspection and certification by the United States Coast Guard with respect to the following matters: (1) Lifesaving equipment, including but not limited to, the number, type, size, capacity, details of construction, methods of operation, stowage, maintenance, manning, use, testing, and inspection of such equipment, and drills and exercises necessary to assure proper functioning and use of such equipment * * *.” The Coast Guard determined that the use of independent laboratories for witnessing or performing certain tests and inspections was “necessary” to carry out its responsibilities under this statutory section. In the notice of proposed rulemaking proposing 46 CFR part 159, the Coast Guard explained that “the Coast Guard’s marine inspection responsibilities increased while the number of personnel available to perform these inspections has not increased at a comparable rate.” 43 FR 49440 (October 23, 1978). The Coast Guard promulgated part 159 to “free some of the Coast Guard’s limited field personnel for other duties with no change in the quality of the approved equipment or material.” *Id.*; see also 44 FR 73038 (December 17, 1979) (Final Rule document promulgating part 159).

⁴ Section 3306 directs “the Secretary shall prescribe necessary regulations to ensure proper execution of, and to carry out, this part [addressing

Revision of Title 46, U.S.C. "Shipping"; House Report No. 98-338 (August 1, 1983), 1983 U.S.C.C.A.N. 924, 954-53.

The authority for current 46 CFR part 159 is 46 U.S.C. 3306, which "contains broad authority to prescribe regulations for proper inspection and certification of vessels," House Report No. 98-338 (August 1, 1983), 1983 U.S.C.C.A.N. 924, 954-53, including the specific requirement to prescribe regulations to carry out the statutory requirements "in the most effective manner," 46 U.S.C. 3306(a). The Coast Guard still finds the use of independent laboratories in the Coast Guard's approval process to be "the most effective manner" of executing and carrying out its obligations under section 3306.

Independent laboratories, accepted by the Coast Guard under 46 CFR part 159, assist the Coast Guard in its approval process by performing or witnessing certain tests and conducting certain inspections required for Coast Guard approval of equipment and materials. When performing or witnessing tests, independent laboratories must follow Coast Guard standards and procedures, and may deviate from those standards and procedures only to require more stringent standards and procedures, and only with Coast Guard approval. *See* 46 CFR 159.007-3. Additionally, all accepted independent laboratories must be impartial and disinterested in the outcome of inspections and tests. *See* 46 CFR 159.010-3(a)(3)-(5) (requiring an independent laboratory not be owned or controlled by a manufacturer, vendor, or supplier of materials for the equipment or material to be inspected; not be dependent on acceptance as an independent laboratory to remain in business, and not advertise or promote equipment or materials that the independent laboratory inspects or tests).

The Coast Guard reviews independent laboratory test and inspection reports when determining the approvability of equipment and materials. The Coast Guard currently allows accepted independent laboratories to witness tests of almost all types of shipboard equipment, including certain lifesaving equipment. *See, e.g.,* 46 CFR 160.010-9(a) (approval and production tests in subpart 160.010, addressing buoyant apparatuses, must be conducted by an

inspection and regulation of vessels] in the most effective manner for (1) The design, construction, alteration, repair, and operation of those vessels [subject to inspection] * * * ; (2) lifesaving equipment and its use; (3) firefighting equipment, its use, and precautionary measures to guard against fire; (4) inspections and tests related to paragraphs (1), (2), and (3) of this subsection; and (5) the use of vessel stores and other supplies of a dangerous nature * * * ."

independent laboratory); 46 CFR 160.151-13(a) (manufacturers must arrange for an independent laboratory to inspect a prototype liferaft during fabrication); and 46 CFR 160.151-31(a) (production inspections and tests of inflatable liferafts must be carried out in accordance with the procedures for independent laboratory inspection).

Current regulations in 46 CFR part 160, however, require Coast Guard inspectors to be involved in all phases of the approval process of winches, davits, release mechanisms, lifeboats, and rescue boats. *See* 46 CFR part 160, subparts 160.015 (winches), 160.032 (davits), 160.033 (release mechanisms), 160.035 (lifeboats), and 160.056 (rescue boats).

Requiring Coast Guard inspectors to directly perform all phases of the approval process, however, can cause scheduling delays and increased expenses for manufacturers of lifesaving equipment. For example, Coast Guard inspectors are not always able to meet manufacturers' schedules due to competing inspection demands and resource constraints. This can impede productivity and affect the availability of Coast Guard approved equipment for U.S. flag vessels. Third-party certification bodies may qualify as accepted independent laboratories and are often available locally with greater convenience to manufacturers.

Additionally, many manufacturers produce lifesaving equipment for multiple flag nations' vessels, and must have their equipment approved by each nation. Manufacturers often use third-party certification bodies for testing and inspection to satisfy certification requirements from other nations. Unless these third parties are qualified to witness tests and perform inspections on behalf of more than one nation, manufacturers must have their equipment inspected and tested by more than one national representative, which carries potential complications and delays.

The Coast Guard has found, through past experiences with U.S. flag vessel inspections and shipboard equipment approvals, that permitting independent laboratories to do work under appropriate Coast Guard oversight ultimately promotes safety, flexibility, and autonomy by permitting experts from industry to engage more directly in the inspection processes while preserving the Coast Guard's safety and stewardship role in the maritime community.

In this interim rule, the Coast Guard extends the use of independent laboratories, under the oversight of Coast Guard inspectors, in the approval

process for additional lifesaving equipment. The Coast Guard requires manufacturers to use an independent laboratory for prototype fabrication and production oversight, and provides the option in certain cases for manufacturers to use an independent laboratory, again overseen by the Coast Guard, for pre-approval review and prototype testing oversight.

C. Other Revisions

In this interim rule, the Coast Guard also revises the structure of certain subparts affected by this rulemaking, and makes additional conforming, appliance-specific changes to these subparts not related to harmonization with international standards or use of independent laboratories.

IV. Discussion of the Comments and Changes

The Coast Guard's regulations addressing lifesaving equipment are found in 46 CFR part 160. Each subpart addresses a specific type of lifesaving equipment. The Coast Guard is amending these subparts to:

- Harmonize its regulations with IMO standards for launching appliances (winches and davits), release mechanisms, survival craft (lifeboats, inflatable liferafts, and inflatable buoyant apparatuses), and rescue boats, and add new harmonized rules addressing automatic disengaging devices;
- Incorporate the use of independent laboratories, under Coast Guard oversight, for Coast Guard approval procedures for launching appliances, lifeboats, rescue boats, and release mechanisms, and add such use of independent laboratories to new rules addressing automatic disengaging devices; and
- Revise the structure of certain subparts affected by this rulemaking, and make additional appliance-specific changes to these subparts not related to harmonization with international standards or use of independent laboratories. This revision includes updating, adding, or removing certain standards incorporated by reference and creating a new subpart in 46 CFR part 164 addressing fire-retardant resins used in the construction of lifeboats and rescue boats.

A complete discussion of these changes is available in the NPRM, published August 30, 2010. *See* 75 FR 53458, 53460.

A. Discussion of Changes From the NPRM

In the interim rule, the Coast Guard is making changes to the rule text as

proposed in the NPRM (75 FR 53458 (August 30, 2010)). Some of the changes clarify the meaning of the proposed rule text, make requirements less restrictive than proposed, and many of these changes are in response to comments, as noted and discussed in this section. Other changes correct minor, inadvertent inaccuracies in the proposed rule text. While several of the changes are not related to or in response to a comment, the Coast Guard considers these changes to be a “logical outgrowth” of what was proposed in the NPRM, as discussed for each such change below, and that further notice and comment on them is not required.⁵

1. Officer-in-Charge, Marine Inspection (OCMI) Definition

The Coast Guard is changing the definition of OCMI in 46 CFR 160.115–3, 160.132–3, 160.133–3, 160.135–3, 160.151–3, 160.156–3, and 160.170–3 in the interim rule to more accurately align with existing definitions and delineation of OCMI responsibilities in Coast Guard regulations. The definition of OCMI in the proposed rule only addressed OCMI assigned to Coast Guard Districts and inadvertently did not cover OCMI assigned to Activities Europe. The interim rule defines OCMI by referring to 46 CFR 1.01–15(b), which details the responsibilities and duties of all OCMI. If the Coast Guard makes any change to the responsibilities and duties of its OCMI generally, it will make the changes in 46 CFR 1.01–15(b). By referring to 46 CFR 1.01–15(b), the definition of OCMI in subparts 160.115, 160.132, 160.133, 160.135, 160.151, 160.156, and 160.170 will always reflect the most current definition of an OCMI. The definition of OCMI in the proposed rule also defined the “cognizant OCMI” as “the OCMI who has immediate jurisdiction over a vessel for the purpose of performing the duties previously described.” The subparts affected by this rulemaking, however, address equipment, not vessels. As such, the Coast Guard is adding the phrase “or geographic area” to the sentence defining “cognizant OCMI” to make the definition more accurate. These changes are a logical outgrowth of the definition of OCMI in the proposed rule because the purpose of the proposed definition was to specify the Coast Guard personnel with

responsibility under the proposed rule, and these changes clarify but do not otherwise affect that. The NPRM clearly specified the cognizant OCMI would be the responsible Coast Guard personnel, and intended the description of an OCMI to be consistent with the main definition of “OCMI” found in 46 CFR 1.01–15(b). The interim rule still specifies that OCMI have responsibility under the interim rule and the interim rule definition of OCMI only more accurately describes OCMI by aligning the definition with the Coast Guard’s main regulation defining the duties and responsibility of its OCMI and clarifying the definition of “cognizant OCMI.”

2. Welder Certification

In response to a comment, the Coast Guard is expanding the certification requirement for welders in 46 CFR 160.115–7(b)(4), 160.132–7(b)(4), 160.133–7(b)(4), 160.135–7(b)(4), 160.156–7(b)(4), and 160.170–7(b)(4). The comment asked whether the reference to the American Bureau of Shipping would remain in the proposed rule requirement that welding must be performed by “welders certified by the Commandant, American Bureau of Shipping, U.S. Navy, or an independent laboratory accepted by the Commandant.”

No. The Coast Guard has replaced, in the interim rule, the reference to American Bureau of Shipping with a phrase to encompass all Coast Guard-recognized classification societies, as well as revised the regulatory text to include other welder certifications to accommodate overseas manufacturing. The proposed rule would have required welders to be certified by the Commandant, American Bureau of Shipping, U.S. Navy, or an independent laboratory accepted by the Coast Guard. The proposed rule specifically mentioned the American Bureau of Shipping because historically it was the only classification society recognized by the Commandant. The proposed rule used the phrase “independent laboratory accepted by the Coast Guard” to cover welder certifications by other certifying bodies similar to American Bureau of Shipping, including other Coast Guard-recognized classification societies. The Coast Guard currently recognizes several classification societies in addition to the American Bureau of Shipping under the requirements of 46 CFR 8.220. Additionally, the Coast Guard is aware that, although American Bureau of Shipping-certified welders are readily available within the United States, this is not necessarily true overseas. The

proposed rule’s inclusion of “independent laboratory accepted by the Coast Guard” to cover welder certifications by other certifying bodies did not adequately cover welder certifications by other Coast Guard-recognized classification societies or other certifying bodies similar to Coast Guard-recognized classification societies.

The Coast Guard has revised the interim rule to appropriately reflect the Coast Guard’s recognition of several classification societies and to cover welder certifications by other appropriate certifying bodies. Specifically, the revised regulatory text in the interim rule now states, “welders certified by the Commandant, a classification society recognized by the Commandant in accordance with 46 CFR 8.220, the U.S. Navy, or the national body where the [lifesaving equipment] is constructed or the national body’s designated recognized organization.” The Coast Guard notes that the phrase “classification society recognized by the Commandant in accordance with 46 CFR 8.220” covers the American Bureau of Shipping for as long as it remains recognized in accordance with 46 CFR 8.220. These changes are a logical outgrowth of the NPRM because, although the proposed rule text did not adequately cover overseas welder certifications, the NPRM made clear that the proposed rule was designed in many instances to recognize that much of the lifesaving equipment covered by this rulemaking is manufactured overseas and to accommodate overseas manufacturing. See, for example, the discussion in the NPRM preamble in section VI. B. 75 FR 53463. It was inconsistent for the proposed rule to specifically expand the use of independent laboratories in the approval and inspection process to relieve manufacturers of certain burdens associated with this process, and then to also limit the use of welders for manufacturing to only those welders with U.S. certifications. Expanding the options for welder certifications to accommodate overseas manufacturing in the interim rule is a logical outgrowth of the NPRM’s proposal to revise Coast Guard regulations to accommodate overseas manufacturing.

3. Launching Appliances for Fast Rescue Boats

The Coast Guard is correcting the reference to the LSA Code in the interim rule, § 160.115–7(a)(1), to ensure inclusion of the standards for launching appliances intended to be used with fast rescue boats. Proposed 160.115–7(a)(1) included LSA Code “Chapter VI/6.1.1

⁵ See *Int’l Union, United Mine Workers of Amer. v. Mine Safety and Health Admin.*, 626 F.3d 84, 95 (D.C. Cir. 2010) (“a final rule will be deemed to be the logical outgrowth of a proposed rule if a new round of notice and comment would not provide commenters with their first occasion to offer new and different criticisms which the agency might find convincing.”) (internal citations omitted).

and 6.1.2,” for incorporation by reference. This citation to the LSA Code was too specific and erroneously omitted standards for launching appliances intended to be used with fast rescue boats included in provisions of LSA Code Chapter VI/6.1, which is the citation included in the interim rule. This change is a logical outgrowth because the proposed rule included the tests applicable to these launching appliances in § 160.115–7(b)(2) and highlighted the omission in proposed paragraph (a)(1) of the standards to which to test these launching appliances under proposed paragraph (b)(2).

4. Steel Grade Specification

In the interim rule, the Coast Guard is incorporating by reference three additional American Society for Testing Materials (ASTM) standards to correct a reference in the proposed rule to a stainless steel grade without the necessary standard reference. Proposed 46 CFR 160.133–7(b)(3), 160.135–7(b)(3), 160.156–7(b)(3), and 160.170–7(b)(3) stated “Corrosion resistant steel must be a standard 302 stainless steel or have equal or superior corrosion resistant characteristics.” While those familiar with 302 stainless steel would recognize it as an American Iron and Steel Institute (AISI) or ASTM designation, the proposed rule did not specify the designation. The Coast Guard is incorporating by reference ASTM A276–08a “Standard Specification for Stainless Steel Bars and Shapes”, ASTM A313/A313M–08 “Standard Specification for Stainless Steel Spring Wire”, and ASTM A314–08 “Standard Specification for Stainless Steel Billets and Bars for Forging” in each of the affected subparts, and each of the affected sections references these standards. The language in the interim rule reads: “type 302 stainless steel per ASTM A276, A313 or A314.” The interim rule retains the option for using another corrosion resistant steel of equal or superior corrosion resistant characteristics. This change is a logical outgrowth from the proposed rule because the omission of the specific standards organization designation in the proposed rule was clear from the text of the proposed rule. It would have been difficult to comply with the stainless steel requirement in the proposed rule without any reference to the specific designation, and the proposed rule provision providing the option to use other equal or superior steel was meaningless without appropriate designation of type 302 steel.

5. Clarifying Action of Independent Laboratories

In response to a comment, the Coast Guard is making a clarifying editorial change throughout the interim rule to reflect the fact that independent laboratories sometimes perform required tests and other times only witness the performance of required tests, depending on the circumstances. The comment suggested that the repeated NPRM preamble statement, “The independent laboratory must perform or witness the inspections and tests under this section * * *” is misleading because laboratories are otherwise only required by the proposed rule to witness tests, and not to perform them. The commenter suggested that the wording in the preamble should be changed to, “The independent laboratory must witness the inspections and tests under this section * * *”

The Coast Guard clarifies that under the proposed and interim rules, independent laboratories both perform and witness required tests depending upon the circumstances. In order to ensure the interim rule accurately reflects these different, required actions of independent laboratories, and to ensure consistency of terminology between the affected subparts, the interim rule replaces instances of “conduct or witness,” “conduct,” and “perform or witness” with the phrase “perform or witness, as appropriate,” in 46 CFR 160.115–15, 160.132–15, 160.133–15, 160.135–11, 160.135–15, 160.156–11, 160.156–15 and 160.170–15, as necessary.

6. Adding an Additional, Optional Artificial Weathering Method for Resins

In response to a comment, the Coast Guard is adding an additional, optional method for artificially weathering resins in 46 CFR part 160, Table 164.120–7. In the proposed rule, this table was numbered as Table 164.017–7; see Section 7, Editorial Changes, below for more details on the renumbering. As proposed, Table 164.120–7(d)(5) (Table 164.017–7 in the NPRM) provided the option of weathering specimens by either 1 year per MIL–R–7575C, or 500-hour exposure per ASTM G154 Table X2.1 Cycle 3. The comment suggested adding as an alternative or changing to Cycle 1 in Table X2.1 of ASTM G154—UVA–340 exposure at Table 164.120–7 (UV test according to ASTM G154), stating that UVA exposure is seen as a more realistic comparison to natural weathering. The Coast Guard agrees that Cycle 1 is also an appropriate artificial weathering method, and has revised the regulatory text accordingly. In the

interim rule, resin artificial weathering testing may be performed using Cycle 1 or Cycle 3 of ASTM G154.

7. Limiting Clear Resin Requirements for Lifeboats and Rescue Boats

In response to a comment, the Coast Guard is clarifying the meaning of proposed §§ 160.135–11(c)(2)(i)(A) and 160.156–11(c)(2)(i)(A). The commenter pointed out that in the proposed rule, §§ 160.135–11(c)(2)(i)(A) and 160.156–11(c)(2)(i)(A) may be read to imply that every Fiber Reinforced Plastic (FRP) component of a prototype needs to be of clear resin, including the gel coat. The commenter suggested that this requirement be limited to the outer hull and FRP inner hull components which are bonded or bolted to the outer hull. The Coast Guard agrees the language of the proposed rule was unclear, and agrees with the commenter’s suggestion, which was the intended meaning of the proposed rule’s text. The Coast Guard has revised §§ 160.135–11(c)(2)(i)(A) and 160.156–11(c)(2)(i)(A) to clarify that only the outer hull and FRP inner hull components bonded or bolted to the outer hull must be constructed of clear resin.

8. Editorial Changes

The Coast Guard is making two clarifying editorial changes requested by commenters: (1) In § 160.115–7(b)(6)(vi)(B), the reference in the proposed rule to “12 inches” now reads in the interim rule as “0.3m (12 in)” for consistency throughout the rules in citing the metric measurement and noting the U.S. customary measurement in parentheses; and (2) in § 160.135–7(b)(12) the Coast Guard adds the word “hull” before “drain plug” in the paragraph heading to avoid confusion with engine oil pan drain plugs, or with other drain plugs.

Additionally, as suggested by a commenter, the Coast Guard is renumbering proposed 46 CFR part 164, subpart 164.017 as 46 CFR part 164, subpart 164.120. The commenter suggested that the choice of “164.017” for a new subpart number addressing fire retardant resins for lifeboats and rescue boats is possibly confusing because this designation might not be consistent with the currently applied numbering convention in 46 CFR. The current numbering convention used in 46 CFR correlates domestic-applicable—subparts 160.OXX—with SOLAS-applicable—subparts 160.IXX. This same numbering convention also applies to approval series. Under this convention, the correlating SOLAS-applicable approval series to proposed subpart 164.017 would be current

approval series 164.117, which is assigned to SOLAS Floor Coverings. The commenter recommended number "164.050" or higher as a suitable alternative. The Coast Guard has renumbered proposed 46 CFR part 164, subpart 164.017 to subpart 164.120 to resolve the conflict with the approval series assigned to floor coverings and to acknowledge that the proposed subpart is consistent with SOLAS requirements.

Finally, the Coast Guard is making additional non-substantive changes to the references to documents incorporated by reference and to correct a typo. The Coast Guard updated the citations to IMO documents incorporated by reference to make them easier to identify and to obtain copies. The Coast Guard has updated citations of other standards incorporated by reference by providing cites to edition and date, as applicable, to ensure proper identification of the standard and to conform to **Federal Register** requirements for incorporations by reference. None of the standards with updated citations have changed from the NPRM to the interim rule. The Coast Guard also removed two standards (ISO 2039-1:2001 and MIL P 17549D(SH)) that were erroneously proposed for incorporation by reference in part 164.120 because they were not proposed for use in part 164.120 in the NPRM and are not used in the interim rule. The NPRM proposed incorporation by reference of ISO 2039-1:2001 and ISO 2039-2:1987 in § 165.120-7, but that section only referenced "ISO 2039" as an equivalent, alternative to ASTM D 2583. Those familiar with these standards would recognize that ISO 2039-2:1987 is the equivalent, alternative to ASTM D 2583 for determining indentation hardness. The interim rule does not contain the unnecessary ISO standard and corrects the reference in § 165.120-7 to read "ISO 2039-2." The NPRM proposed incorporate by reference of MIL P 17549D(SH) but the proposed rule and interim rule do not reference to this standard in part 164.120. The Coast Guard is also correcting a typo that appeared in the proposed definition of "Independent Laboratory" in proposed § 160.132-3. The proposed definition incorrectly referenced 46 CFR 169.001-3 instead of 46 CFR 159.001-3, which was correctly referenced in all other definitions of "Independent Laboratory" in the proposed rule.

B. Discussion of Comments on the NPRM

The Coast Guard received 29 comments in response to the NPRM published on August 31, 2010. See 75

FR 53458. Several comments proposed changes or made comments prompting changes in the interim rule, as discussed above in Section A, Discussion of Changes from the NPRM. The following paragraphs contain an analysis of the remaining comments received.

One commenter noted the two new resolutions recently adopted by IMO and asked whether the Coast Guard will require compliance with the amendments to the LSA Code and Recommendation on Testing that affect liferaft capacity requirements.

As discussed above in II, Regulatory History, the Coast Guard is publishing an SNPRM to propose changes to the interim rule to address these two new resolutions. The SNPRM is published separately in this issue of the **Federal Register** and the Coast Guard seeks comment on the proposed changes in the SNPRM.

One commenter noted that, under the Agreement between the United States and European Community on the mutual recognition of certification of conformity for marine equipment (US/EC MRA) and the agreement between the United States and the European Economic Area and European Free Trade Association countries on the Mutual Recognition for Conformity of Marine Equipment (US/EEA/EFTA MRA), a Notified Body⁶ issues Coast Guard approval certificates, and asked whether the Coast Guard intends to modify this, based on the NPRM preamble statement: "The Coast Guard would remain the sole issuer of certificates of approval for Coast Guard-approved lifesaving equipment." The commenter also stated that an independent laboratory publishes its approval certificates, and asked whether such publication would violate the proposed rule.

The Coast Guard clarifies that Notified Bodies, recognized under the US/EC MRA and the US/EEA/EFTA MRA, do not issue Coast Guard Certificates of Approval, but are permitted to issue a Coast Guard approval number for certain types of equipment and assign it to the Notified Body's certificate in accordance with the US/EC MRA and the US/EEA/EFTA MRA. For more information on the US/EC MRA and the US/EEA/EFTA MRA, please see Navigation and Inspection Circular 08-04 change 1 (available at: <http://www.uscg.mil/hq/cg5/nvic/pdf/2004/08-04change1.pdf>).

⁶ A Notified Body is generally a testing or certification organization recognized by the European Union to evaluate certain equipment, similar to an independent laboratory accepted by the Commandant.

The Coast Guard notes that the only equipment affected by this rulemaking currently covered by the US/EC MRA and the US/EEA/EFTA MRA is liferaft automatic disengaging devices, which are addressed in 46 CFR part 160, subpart 160.170. Liferaft automatic release mechanisms may have a Certificate of Approval issued by the Coast Guard or a Coast Guard approval number issued by the appropriate Notified Body. The Coast Guard recognizes that an independent laboratory may also be a Notified Body, and clarifies that an independent laboratory publishing its approval certificates for equipment covered by the US/EC MRA and the US/EEA/EFTA MRA does not violate this rule, and in fact is required for Coast Guard approvals issued under the MRAs. The Coast Guard notes that, unless issued in accordance with one of the MRAs, an independent laboratory's approval certificate does not constitute Coast Guard approval. The Coast Guard further clarifies that for all other equipment it will remain the sole issuer of Certificates of Approval for Coast Guard-approved lifesaving equipment.

One commenter pointed out the discussion in the NPRM preamble regarding the Coast Guard's intention to relieve manufacturers of the burden of multiple design reviews, or prototype tests, by multiple nations with the expanded use of independent laboratories, and asked whether there will be Mutual Recognition Agreements (MRAs) with the other nations, or whether the Coast Guard will accept approvals done by an independent laboratory on behalf of other nations.

The Coast Guard is not currently pursuing MRAs with other nations, but will accept test reports from Coast Guard-accepted independent laboratories in support of approvals for other nations, provided the testing is conducted in accordance with this interim rule. While a foreign entity may qualify as an independent laboratory accepted under 46 CFR part 159, subpart 159.010, the entity will perform duties under the interim rule on behalf of the Coast Guard, and will apply and comply with Coast Guard requirements, not with the entities' own rules or guidelines.

One commenter noted the NPRM preamble statement, "Manufacturers of liferafts would have to demonstrate that designs previously approved under the current regulations comply with the revised regulations prior to the expiration of their current approvals," and asked whether the rule will delegate the design review to a recognized laboratory.

No, the Coast Guard retains the responsibility for design review for liferafts under provisions in current 46 CFR part 160, subpart 160.151, and those provisions are not affected by this rulemaking.

One commenter noted that various steps of the approval process are split between the Coast Guard and an independent laboratory for some equipment. The commenter suggested it should be ensured that the same party is involved with all parts of the approval process.

The Coast Guard disagrees. As noted in the NPRM preamble, the Coast Guard retains authority for the phases of the approval process that involve decisions about the acceptability and approvability of lifesaving equipment design and performance, preapproval plan review and prototype testing. Additionally, the Coast Guard remains the sole issuer of Certificates of Approval (except where approval numbers are issued in accordance with the US/EC MRA or the US/EEA-EFTA MRA, as discussed above).

One commenter suggested that the use of independent laboratories for plan review and prototype inspection and tests be limited to manufacturers that already hold Coast Guard Certificates of Approval for the type of equipment under consideration, and independent laboratories already involved in inspection of the type of equipment involved.

The Coast Guard disagrees with the suggested blanket limitation because, as stated in the NPRM, the authority for independent laboratories to perform these functions will be defined in the course of acceptance of the independent laboratory in accordance with 46 CFR part 159, subpart 159.010. The commenter's suggestion may be considered, as appropriate, in the course of accepting specific independent laboratories for approval of specific types of equipment. The Coast Guard notes that an entity must already be involved in inspection of the type of equipment for which they apply in order to be an accepted independent laboratory under 46 CFR part 159, subpart 159.010.

One commenter asked whether the proposed rulemaking satisfies the court order of May 31, 1983, effectuating the decision in *U.S. Lifesaving Equipment Manufacturers Association v. Dole*, 567 F.Supp. 696, (May 4, 1983). Specifically, the court order prohibited the Coast Guard from requiring or authorizing "any manufacturer or manufacturers of liferafts, lifeboats, or lifeboat equipment to have such equipment inspected or tested by an independent laboratory

unless USCG shall have first (a) Published an appropriate notice of proposed rulemaking in the Federal Register advising interested persons of the scope and effect of and reasons for the proposed new requirement, (b) provided an opportunity for public comment thereon, (c) fully considered all such comments, and (d) included in the final regulation an adequate statement of the basis and purpose of the new requirements."

Yes, the Coast Guard satisfies that court order with (a) Publication of the NPRM on August 30, 2010, (b) the public comment period that closed on November 29, 2010, (c) this discussion of comments evidencing Coast Guard's consideration of all comments, and (d) the discussion above under III, Basis and Purpose.

One commenter stated that they think the word "advertise" in § 159.010-3(a)(3)-(5) (requiring an independent laboratory not be owned or controlled by a manufacturer, vendor, or supplier of materials for the equipment or material to be inspected; not be dependent on acceptance as an independent laboratory to remain in business, and not advertise or promote equipment or materials that the independent laboratory inspects or tests), can be taken to mean that an independent laboratory cannot list the products it has approved or allow the use of its logos on such products.

The Coast Guard agrees that under longstanding Coast Guard policy, independent laboratories may, and commonly do, mark and list equipment they have tested. The Coast Guard emphasizes, however, that under the subparts affected by this rulemaking, independent laboratories do not approve equipment on behalf of the Coast Guard.

One commenter suggested that the proposed rule provisions for permitting the use of equivalent materials should require the independent laboratory to prepare the justification of equivalency for acceptance by the Commandant. The commenter suggested that Coast Guard staff should not have to do the research required to accept such equivalencies.

The Coast Guard concurs with the spirit of the comment to relieve Coast Guard staff of researching equivalencies. Under longstanding Coast Guard policy, it is the burden of the manufacturer to demonstrate equivalency when requesting such a determination. No regulatory text changes are necessary.

One commenter asked if the Coast Guard intends that a laboratory would be required to verify the quality assurance and quality control process in a given factory and monitor batch

testing of resins, per the following NPRM preamble statement: "The scope of proposed subpart 164.017 would state that the subpart contains performance requirements, acceptance tests, and production testing and inspection requirements for fire retardant resins used in the construction of lifeboats and rescue boats approved under proposed 46 CFR part 160, subparts 160.135 and 160.156. See proposed § 164.017-1."

No, the intent of this rulemaking is not to require independent laboratories to verify the quality assurance and quality control process at a resin manufacturer. The Coast Guard notes that new 46 CFR part 164, subpart 164.120 (proposed in the NPRM as subpart 164.017) does not contain such a requirement. The Coast Guard accepts independent laboratories for the testing and inspections of specific equipment or materials. An independent laboratory accepted for resin may not be the same independent laboratory accepted for lifeboats or rescue boats.

One commenter suggested that Table 1, "IMO Standards and Coast Guard Proposed Interpretations," in the NPRM preamble should be included in the final rule because of its usefulness in showing differences between IMO standards and Coast Guard interpretations of those standards.

While the Coast Guard included Table 1 in the NPRM preamble to aid readers in understanding the regulatory text, the regulatory text is the official legal language. Table 1, however, will remain available for reference as published in the NPRM.

One commenter expressed support for § 160.135-7(b)(2), describing operator visibility requirements which exceed the requirements of the IMO LSA Code.

The Coast Guard appreciates the support.

One commenter asked whether, per the preamble statement indicating that the Coast Guard will require the installation of navigation lights on lifeboats and rescue boats, consistent with the International Regulations for Preventing Collisions at Sea (COLREGS) requirements, the Coast Guard will present such a proposal to IMO for consideration.

No, the Coast Guard does not consider such a proposal necessary since neither SOLAS nor the LSA Code exempt lifeboats or rescue boats from navigational lights as required by the COLREGS for a vessel of the relevant size and speed.

One commenter asked that the Coast Guard make available the data used in the analysis of the proposed rule's effect on small entities.

The Coast Guard notes that the data has been available since publication of the NPRM. The data is disclosed in the NPRM's Regulatory Analysis, which continues to be available on the docket where indicated under **ADDRESSES**.

One commenter suggested adding MIL-R-21607E(SH), Resins, Polyester, Low Pressure Laminating, Fire-Retardant to the list of standards in § 160.135-5(f) without providing a reason.

The Coast Guard disagrees. This standard is incorporated by reference appropriately in 46 CFR part 164, proposed subpart 164.120 (proposed in the NPRM as subpart 164.017), which is the subpart addressing resins and required standards, and is only referred to, but not required, in 46 CFR part 160, subpart 160.135.

One commenter noted that proposed § 160.156-15(b)(3) refers to a guideline for rescue boat "Running Lot Inspections," but that there are no other references to running lot inspections to be found. The commenter asked whether running lot inspections will be considered in the rulemaking.

The Coast Guard notes that the NPRM did not reference guidelines for rescue boat "Running Lot Inspections," nor does this rulemaking address running lot inspections. Although past practice provided the option for the use of running lot inspections, the Coast Guard did not propose the use of running lot inspections in the NPRM because the Coast Guard determined it would be impractical for this type of equipment, which is produced and inspected on an individual, versus lot, basis. As such, under the interim rule, each production rescue boat must be tested in accordance with § 160.156-15.

One commenter asked if the Coast Guard was considering allowing extended service intervals for inflatable liferafts in light of movement toward extended service, applying vacuum packing and other methods.

The NPRM did not address extended service intervals for liferafts, and the Coast Guard is not addressing extended service intervals in this interim rule.

Two commenters suggested that the "Incorporation by reference" and "Definitions" sections and preemption language for each equipment type subpart should be combined into sections to apply to all of 46 CFR part 160 or all of 46 CFR subchapter Q. The commenters suggested this will eliminate the need to have these sections in each subpart.

The Coast Guard appreciates the potential gained efficiency in having combined sections; however, the standards incorporated by reference and

the definitions contained in the subparts affected by this rulemaking do not apply to all of part 160. The Coast Guard also appreciates the suggestion regarding subchapter Q; however, it is beyond the scope of this rulemaking, which does not amend part 159 or affect all the subparts contained in subchapter Q. The incorporations by reference, definitions, and preemption language are appropriately placed for the purposes of this rulemaking. The Coast Guard, however, may consider the suggestion in a future rulemaking.

One commenter suggested that the Coast Guard remove from the CFR all existing language applicable to rigid buoyant apparatuses and life floats and add language indicating that all approvals of such equipment will be withdrawn under 46 CFR 2.75-50(a) on January 1, 2015, per Section 609 of the Coast Guard Authorization Act of 2010 (Pub. L. 111-281).

The Coast Guard plans to address Section 609 requirements in a future regulatory action, and not as part of this rulemaking.

One commenter asked whether the proposed rulemaking extends to those companies that service fire fighting and lifesaving equipment.

No, this is beyond the scope of this rulemaking.

One commenter noted that, although this rulemaking does not address installation testing, the Coast Guard's guidance on installation testing contained in the online version of the Marine Safety Manual (MSM), Volume II, section B.1.P.2 is incomplete and recommends that the missing sections be added to the Web site.

Although this comment is beyond the scope of this rulemaking, the Coast Guard appreciates the information and will take appropriate action to address it.

V. Incorporation by Reference

The Director of the Federal Register has approved the material in 46 CFR 160.010-1, 160.051-5, 160.115-5, 160.132-5, 160.133-5, 160.135-5, 160.151-5, 160.156-5, 160.170-5, and 164.120-5 for incorporation by reference under 5 U.S.C. 552 and 1 CFR part 51. You may inspect this material at U.S. Coast Guard Headquarters where indicated under **ADDRESSES**. Copies of the material are available from the sources listed in paragraph (b) in each of those sections.

VI. Regulatory Analyses

We developed this interim rule after considering numerous statutes and executive orders related to rulemaking. Below we summarize our analyses

based on 15 of these statutes or executive orders.

A. Executive Order 12866 and Executive Order 13563

This rule is not a significant regulatory action under section 3(f) of Executive Order 12866, Regulatory Planning and Review as supplemented by Executive Order 13563, and does not require an assessment of potential costs and benefits under section 6(a)(3) of that Order. OMB has not reviewed it under that Order.

Comments on the proposed rule are summarized in the "Discussion of Comments and Changes" section of this preamble. The Coast Guard received no comments that altered our assessment of impacts in the NPRM. We have found no additional data or information that changed our findings in the NPRM. We have adopted the assessment in the NPRM for this rule as final.

A "Preliminary Regulatory Analysis and Initial Regulatory Flexibility Analysis" is available in the docket where indicated under the "Public Participation and Request for Comments" section of this preamble. A summary of the analysis follows:

As previously discussed, the Coast Guard will amend 46 CFR part 160 to harmonize its regulations with IMO standards governing certain types of lifesaving equipment. The Coast Guard also will incorporate the use of independent laboratories for Coast Guard approval procedures for certain types of lifesaving equipment, including requiring the use of independent laboratories at certain stages of the approval procedures in lieu of Coast Guard personnel who currently perform these inspections and witness these tests.

We expect the changes to harmonize existing regulations with international standards to have no additional costs for manufacturers of lifesaving equipment. In order for their lifesaving equipment to be used on vessels for international voyages from any nation that is a SOLAS signatory, equipment manufacturers must currently comply with the international standards for lifesaving equipment established by SOLAS. We expect the rule reflects existing industry practices adopted in response to these international standards governing the performance of certain types of lifesaving equipment.

We expect the changes to require the use of independent laboratories instead of Coast Guard personnel will result in additional costs for manufacturers of certain types of lifesaving equipment.

Currently, the Coast Guard does not charge for its inspections (although

overseas manufacturing facilities reimburse the Coast Guard for travel and subsistence costs of Coast Guard inspectors). The use of independent laboratories required by this rule will create a new cost for manufacturers of lifesaving equipment. However, the costs of inspections by independent laboratories will be partially offset by an overall reduction in the number of inspections, made possible through the coordination of independent laboratories. Manufacturers will be able to schedule inspections and testing for independent laboratories acting on behalf of multiple nations, including the U.S., rather than requiring separate Coast Guard inspections and testing by Coast Guard inspectors. This coordinated use of independent laboratories will avoid multiple inspections and testing of the same equipment (see the "Independent Laboratories" section for more details).

Data obtained from the Coast Guard Maritime Information Exchange (CGMIX) indicates that the population affected by this rule includes eight U.S. manufacturers and 76 foreign manufacturers of lifesaving equipment. We estimate the annual costs to manufacturers for using independent laboratories are approximately \$130,000 for U.S. firms and approximately \$683,000 for foreign firms (undiscounted). Over a 10-year period of analysis, we estimate the total present value costs of the rulemaking are approximately \$913,000 for U.S. firms and approximately \$4.8 million for foreign firms, discounted at seven percent. We estimate the total present value cost of the rulemaking to be about \$5.7 million over a 10-year period of analysis.

The other changes, not resulting from harmonization with internal standards or use of independent laboratories, update Coast Guard regulations to reflect current practice or newer versions of existing standards and have minimal costs. These include an amendment specifying the attachment point for sea anchors to liferafts, and the addition of a new subpart in 46 CFR part 164 addressing resins used in the construction of lifeboats and rescue boats and incorporating the use of equivalent international standards as an alternative to national consensus standards.

The benefits of the rule include compliance with U.S. obligations as a SOLAS signatory and the removal of inconsistencies between international standards and the Coast Guard's current regulations. The rule also provides possible savings for manufacturers from coordination efficiencies for inspections

and increased efficiency for the Coast Guard from greater flexibility in assigning its human resources, particularly those stationed at overseas Coast Guard offices.

The "Preliminary Regulatory Analysis and Initial Regulatory Flexibility Analysis" available on the docket provides additional detail on the costs and benefits of this rulemaking.

B. Small Entities

Under the Regulatory Flexibility Act (5 U.S.C. 601–612), the Coast Guard has considered whether this rule will have a significant economic impact on a substantial number of small entities. The term "small entities" comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000.

A combined "Preliminary Regulatory Analysis and Initial Regulatory Flexibility Analysis" discussing the impact of this rule on small entities is available in the docket where indicated under the "Public Participation and Request for Comments" section of this preamble.

In the NPRM, the Coast Guard certified under 5 U.S.C. 605(b) that the rule would not have a significant economic impact on a substantial number of small entities. We received no comments on this certification and have made no changes that would alter our assessment of the impacts in the NPRM.

We determined that six of the eight U.S. firms manufacturing lifesaving equipment are classified as small entities under the Small Business Administration size standards. We estimate the annual costs to use independent laboratories is less than 0.5 percent of revenue for five of the six small entities and less than 1.25 percent of revenue for one of the six small entities. However, these estimates do not include adjustments for manufacturer savings from the coordinated use of independent laboratories that will avoid multiple inspections and testing of the same equipment (see the "Independent Laboratories" section for more details).

Based on this information, the Coast Guard certifies under 5 U.S.C. 605(b) that this rule will not have a significant economic impact on a substantial number of small entities.

C. Assistance for Small Entities

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121),

the Coast Guard wants to assist small entities in understanding this rule so that they can better evaluate its effects on them and participate in the rulemaking. If the rule will affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please consult Mr. George Grills, P.E., Commercial Regulation and Standard Directorate, Office of Design and Engineering Standards, Lifesaving and Fire Safety Division (CG–5214), Coast Guard, telephone 202–372–1385, or e-mail George.G.Grills@uscg.mil. The Coast Guard will not retaliate against small entities that question or complain about this rule or any policy or action of the Coast Guard.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1–888–REG–FAIR (1–888–734–3247).

D. Collection of Information

This rule will call for no new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520). The information collected under the rule is addressed in the existing collection of information, OMB control number 1625–0035, title 46 subchapter Q: Lifesaving, Electrical, and Engineering Equipment, Construction and Materials & Marine Sanitation Devices (33 CFR part 159), which was reviewed by OMB on May 27, 2009 and will expire after the 3-year approval period ending on May 31, 2012, unless renewed. The rule's requirement for the use of inspectors from independent laboratories will increase the total annual collection burden of the existing collection of information by 1.2 percent. The current authorized annual burden is 103,289 hours and the rule will increase the annual burden by approximately 1,221 hours.

The increase in the annual burden is not considered material or substantive. To confirm this, the Coast Guard has submitted a change worksheet (OMB Form 83–C) to OIRA noting the change in the annual burden. The change worksheet is available in the docket where indicated under the "Public

Participation and Request for Comments” section of this preamble.

E. Federalism

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on State or local governments and will either preempt State law or impose a substantial direct cost of compliance on them.

The U.S. Supreme Court has long recognized the field preemptive impact of the Federal regulatory regime for inspected vessels. *See, e.g., Kelly v. Washington ex rel Foss*, 302 U.S. 1 (1937) and the consolidated cases of *United States v. Locke and Intertanko v. Locke*, 529 U.S. 89, 113–116 (2000). Therefore, the Coast Guard’s view is that regulations issued under the authority of 46 U.S.C. 3306 in the areas of design, construction, alteration, repair, operation, superstructures, hulls, fittings, equipment, appliances, propulsion machinery, auxiliary machinery, boilers, unfired pressure vessels, piping, electric installations, accommodations for passengers and crew, sailing school instructors, sailing school students, lifesaving equipment and its use, firefighting equipment, its use and precautionary measures to guard against fire, inspections and tests related to these areas and the use of vessel stores and other supplies of a dangerous nature have preemptive effect over State regulation in these fields, regardless of whether the Coast Guard has issued regulations on the subject or not, and regardless of the existence of conflict between the state and Coast Guard regulation.

While it is well settled that States may not regulate in categories in which Congress intended the Coast Guard to be the sole source of a vessel’s obligations, as these categories are within a field foreclosed from regulation by the States (see *U.S. v. Locke*, above), the Coast Guard recognizes the key role state and local governments may have in making regulatory determinations. Additionally, Sections 4 and 6 of Executive Order 13132 require that for any rules with preemptive effect, the Coast Guard shall provide elected officials of affected state and local governments and their representative national organizations the notice and opportunity for appropriate participation in any rulemaking proceedings, and to consult with such officials early in the rulemaking process. Therefore, we invited affected state and local governments and their representative national organizations to indicate their desire for participation and consultation

in this rulemaking. We received no such indications.

F. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of \$100,000,000 (adjusted for inflation) or more in any one year. Though this rule will not result in such an expenditure, the Coast Guard does discuss the effects of this rule elsewhere in this preamble.

G. Taking of Private Property

This rule will not cause a taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

H. Civil Justice Reform

This rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

I. Protection of Children

The Coast Guard has analyzed this rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This rule is not an economically significant rule and will not create an environmental risk to health or risk to safety that might disproportionately affect children.

J. Indian Tribal Governments

This rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it will not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

K. Energy Effects

The Coast Guard has analyzed this rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. The Coast Guard has determined that it is not a “significant energy action” under that order because it is not a “significant regulatory action” under Executive Order 12866 and is not likely to have a

significant adverse effect on the supply, distribution, or use of energy.

L. International Trade Impacts

Under the Trade Agreement Act of 1979 (codified at 19 U.S.C. 2501 *et seq.*), agencies are prohibited from promulgating any standards or engaging in related activities that create unnecessary obstacles to foreign commerce. Because the rule will have an effect on foreign firms, we have also examined the costs and regulatory action to determine if it will constitute an unnecessary obstacle to trade. Because the overall costs are minimal, the requirement for third-party inspections and testing is uniform across product classes, and the requirement for independent third-party testing applies to both domestic and overseas manufacturers, this rule does not constitute an obstacle to trade or a non-tariff barrier to trade.

M. Technical Standards

The National Technology Transfer and Advancement Act (NTTAA) (15 U.S.C. 272 note) directs agencies to use voluntary consensus standards in their regulatory activities unless the agency provides Congress, through OMB, with an explanation of why using these standards will be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.*, specifications of materials, performance, design, or operation; test methods; sampling procedures; and related management systems practices) that are developed or adopted by voluntary consensus standards bodies.

This rule uses the following voluntary consensus standards:

- ASTM A 36/A 36M–08, Standard Specification for Carbon Structural Steel, (approved May 15, 2008);
- ASTM A 216/A 216M–08, Standard Specification for Steel Castings, Carbon, Suitable for Fusion Welding for High-Temperature Service, (approved November 1, 2008);
- ASTM A 276–08a, Standard Specification for Stainless Steel Bars and Shapes, (approved October 1, 2008);
- ASTM A 313/A313M–08, Standard Specification for Stainless Steel Spring Wire, (approved October 1, 2008);
- ASTM A 314–08, Standard Specification for Stainless Steel Billets and Bars for Forging, (approved October 1, 2008);
- ASTM A 653/A 653M–08, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process, (approved July 15, 2008);

- ASTM B 127–05 (Reapproved 2009), Standard Specification for Nickel-Copper Alloy (UNS N04400) Plate, Sheet, and Strip, (approved October 1, 2009);
 - ASTM B 209–07, Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate, (approved August 1, 2007);
 - ASTM D 543–06, Standard Practices for Evaluating the Resistance of Plastics to Chemical Reagents, (approved April 1, 2006);
 - ASTM D 570–98 (Reapproved 2005), Standard Test Method for Water Absorption of Plastics, (approved November 1, 2005);
 - ASTM D 638–08, Standard Test Method for Tensile Properties of Plastics, (approved April 1, 2008);
 - ASTM D 695–08, Standard Test Method for Compressive Properties of Rigid Plastics, (approved August 1, 2008);
 - ASTM D 790–07e1, Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials, (approved September 1, 2007);
 - ASTM D 792–08, Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement, (approved June 15, 2008);
 - ASTM D 1045–08, Standard Test Methods of Sampling and Testing Plasticizers used in Plastics, (approved August 1, 2008);
 - ASTM D 1824–95 (Reapproved 2002), Standard Test Method for Apparent Viscosity of Plastics and Organosols at Low Shear Rates, (approved March 15, 1995);
 - ASTM D 2471–99, Standard Test Method for Gel Time and Peak Exothermic Temperature of Reacting Thermosetting Resins, (approved November 10, 1999);
 - ASTM D 2583–07, Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor, (approved March 1, 2007);
 - ASTM D 2584–08, Standard Test Method of Ignition Loss for Cured Reinforced Resins, (approved May 1, 2008);
 - ASTM D 4029–09, Standard Specification for Finished Woven Glass Fabrics, (approved January 15, 2009);
 - ASTM F 1014–02 (Reapproved 2007), Standard Specification for Flashlights on Vessels, (approved May 1, 2007);
 - ASTM F 1166–07, Standard Practice for Human Engineering Design for Marine Systems, Equipment, and Facilities, (approved January 1, 2007);
 - ASTM G 154–06, Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials, (approved June 5, 2006);
 - IMO Resolution A.657(16), Instructions for Action in Survival Craft, (adopted October 19, 1989);
 - IMO Resolution A.658(16), Use and Fitting of Retro-Reflective Materials on Life-Saving Appliances, (adopted October 19, 1989);
 - IMO Resolution A.760(18), Symbols Related to Life-Saving Appliances and Arrangements, (adopted November 4, 1993);
 - Life-Saving Appliances, including LSA Code, 2010 Edition, (2010);
 - MSC/Circular 980, Standardized Life-saving Appliance Evaluation and Test Report Forms (February 13, 2001);
 - MSC/Circular 1006, Guidelines On Fire Test Procedures For Acceptance Of Fire-Retardant Materials For The Construction Of Lifeboats, (June 18, 2001);
 - MSC.1/Circular 1205, Guidelines for Developing Operation and Maintenance Manuals for Lifeboat Systems, (May 26, 2006);
 - ISO 62:2008(E), Plastics—Determination of water absorption, Third Edition (February 15, 2008);
 - ISO 175:1999(E), Plastics—Methods of test for the determination of the effects of immersion in liquid chemicals, Second Edition (May 1, 1999);
 - ISO 527–1:1993(E), Plastics—Determination of tensile properties, Part 1: General Principles, First Edition (June 15, 1993);
 - ISO 604:2002(E), Plastics—Determination of compressive properties, Third Edition (March 1, 2002);
 - ISO 1172:1996(E), Textile-glass-reinforced plastics—Prepregs, moulding compounds and laminates—Determination of the textile-glass and mineral-filler content—Calcination methods, Second Edition (December 15, 1996);
 - ISO 1183–1:2004(E), Plastics,—Methods for determining the density of non-cellular plastics—Part 1: Immersion method, liquid pycnometer method and titration method, First Edition (February 1, 2004);
 - ISO 1675–1985(E), Plastics—Liquid resins—Determination of density by the pycnometer method, Second Edition (August 15, 1985);
 - ISO 2039–2:1987(E), Plastics—Determination of hardness—Part 2: Rockwell hardness, Second Edition (July 15, 1987);
 - ISO 2114:2000(E), Plastics (polyester resins) and paints and varnishes (binders)—Determination of partial acid value and total acid value, Third Edition (August 1, 2000);
 - ISO 2535:2001(E), Plastics—Unsaturated-polyester resins—Measurement of gel time at ambient temperature, Third Edition (July 15, 2001);
 - ISO 2555:1989(E), Plastics—Resins in the liquid state or as emulsions or dispersions—Determination of apparent viscosity by the Brookfield test method, Second Edition (February 1, 1989, corrected and reprinted February 1, 1999);
 - ISO 14125:1998(E), Fibre-reinforced plastic composites—Determination of flexural properties, First Edition (March 1, 1998);
 - ISO 15372:2000(E), Ships and marine technology—Inflatable rescue boats—Coated fabrics for inflatable chambers, First Edition (December 1, 2000);
 - ISO 15738:2002(E), Ships and marine technology—Gas Inflation systems for inflatable life-saving appliances, First Edition (February 1, 2002);
 - ISO 17339:2002(E), Ships and marine technology—Sea anchors for survival craft and rescue boats, First Edition (November 15, 2002);
 - ISO 18813:2006(E), Ships and marine technology—Survival equipment for survival craft and rescue boats, First Edition (April 1, 2006);
 - SAE J1527–93 (Revised JAN93), Marine Fuel Hoses, (February 5, 1993);
 - UL 1102, Standard for Nonintegral Marine Fuel Tanks, Fifth Edition (February 4, 1999); and
 - UL 1185, Standard for Portable Marine Fuel Tanks, Fourth Edition (September 26, 1996).
- The sections that reference these standards and the locations where these standards are available are listed in 46 CFR 160.010–1, 160.051–5, 160.115–5, 160.132–5, 160.133–5, 160.135–5, 160.151–5, 160.156–5, 160.170–5, and 164.120–5.
- This rule also uses technical standards other than voluntary consensus standards. The Coast Guard will use the below-listed standards issued by the Department of Defense and the General Services Administration because the Coast Guard did not find voluntary consensus standards that fulfill the purpose of these standards as applicable to the rule:
- A–A–55308, Commercial Item Description, Cloth And Strip, Laminated Or Coated, Vinyl Nylon Or Polyester, High Strength, Flexible, (May 13, 1997);
 - Federal Standard 595C, Colors Used in Government Procurement, (January 16, 2008);
 - MIL–C–17415F, Military Specification, Cloth, Coated, and

Webbing, Inflatable Boat and Miscellaneous Use, (May 31, 1989);

- MIL-C-19663D, Military Specification, Cloth, Woven Roving, For Plastic Laminate, (August 4, 1988);

- MIL-P-17549D(SH), Military Specification, Plastic Laminates, Fibrous Glass Reinforced, Marine Structural, (August 31, 1981);

- MIL-P-19644C, Military Specification, Plastic Molding Material (Polystyrene Foam, Expanded Bead), (July 10, 1970);

- MIL-P-21929B, Military Specification, Plastic Material, Cellular Polyurethane, Foam-In-Place, Rigid (2 and 4 Pounds per Cubic Foot), (August 11, 1969);

- MIL-P-40619A, Military Specification, Plastic Material, Cellular, Polystyrene (For Buoyancy Applications) (December 9, 1968);

- MIL-R-7575C, Military Specification, Resin, Polyester, Low-Pressure Laminating, (June 29, 1966);

- MIL-R-21607E(SH), Military Specification, Resins, Polyester, Low Pressure Laminating, Fire-Retardant, (May 25, 1990); and

- MIL-R-24719(SH), Military Specification, Resins, Vinyl Ester, Low Pressure Laminating, (May 4, 1989).

N. Coast Guard Authorization Act Sec. 608 (46 U.S.C. 2118(a))

Section 608 of the Coast Guard Authorization Act of 2010 (Pub. L. 111-281) adds new section 2118 to 46 U.S.C. subtitle II (Vessels and Seamen), chapter 21 (General). New section 2118(a) sets forth requirements for standards established for approved equipment required on vessels subject to 46 U.S.C. subtitle II (Vessels and Seamen), Part B (Inspection and Regulation of Vessels). Those standards must be “(1) Based on performance using the best available technology that is economically achievable; and (2) operationally practical.” See 46 U.S.C. 2118(a). This rulemaking addresses lifesaving equipment for Coast Guard approval that is required on vessels subject to 46 U.S.C. subtitle II, part B, and the Coast Guard has ensured this rule satisfies the requirements of 46 U.S.C. 2118(a), as necessary.

O. Environment

We have analyzed this rule under Department of Homeland Security Management Directive 023-01 and Commandant Instruction M16475.ID, which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321-4370f), and have concluded that this action is one of a category of actions that do not

individually or cumulatively have a significant effect on the human environment. This rule is categorically excluded under section 2.B.2, figure 2-1, paragraph (34)(a) and (d) of the Instruction and under section 6(a) of the “Appendix to National Environmental Policy Act: Coast Guard Procedures for Categorical Exclusions, Notice of Final Agency Policy” (67 FR 48243, July 23, 2002). This rule involves regulations which are editorial or procedural; regulations concerning equipping of vessels, and regulations concerning vessel operation safety standards. An environmental analysis checklist and a categorical exclusion determination are available in the docket where indicated under **ADDRESSES**.

List of Subjects

46 CFR Part 108

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

46 CFR Part 117

Marine safety, Passenger vessels.

46 CFR Part 133

Cargo vessels, Marine safety, Reporting and recordkeeping requirements.

46 CFR Part 160

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

46 CFR Part 164

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

46 CFR Part 180

Marine safety, Passenger vessels.

46 CFR Part 199

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

For the reasons discussed in the preamble, the Coast Guard amends 46 CFR parts 108, 117, 133, 160, 164, 180, and 199 as follows:

PART 108—DESIGN AND EQUIPMENT

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

Authority: 43 U.S.C. 1333; 46 U.S.C. 3102, 3306; Department of Homeland Security Delegation No. 0170.1.

■ 2. Revise § 108.550(a) to read as follows:

§ 108.550 Survival craft launching and recovery arrangements: General.

(a)(1) Each launching appliance must be a davit approved under 46 CFR part 160, subpart 160.132 for use with the intended craft, with a winch approved under 46 CFR part 160, subpart 160.115 for use with the intended craft.

(2) Each launching appliance for a davit-launched liferaft must include an automatic disengaging apparatus approved under 46 CFR part 160, subpart 160.170 and be either—

(i) A launching appliance described in paragraph (a)(1) of this section; or

(ii) A launching appliance approved on or before November 10, 2011 under approval series 160.163.

* * * * *

PART 117—LIFESAVING EQUIPMENT AND ARRANGEMENTS

■ 3. The authority citation for part 117 continues to read as follows:

Authority: 46 U.S.C. 2103, 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

■ 4. In § 117.150, revise paragraph (a) and add paragraph (c) to read as follows:

§ 117.150 Survival craft embarkation arrangements.

(a) A launching appliance described in paragraph (c) of this section, or a marine evacuation system approved under approval series 160.175, must be provided for each inflatable liferaft and inflatable buoyant apparatus when either—

* * * * *

(c) Each launching appliance for a davit-launched liferaft must include an automatic disengaging apparatus approved under 46 CFR part 160, subpart 160.170 and be either—

(1) A davit approved under 46 CFR part 160, subpart 160.132 for use with a liferaft, with a winch approved under 46 CFR part 160, subpart 160.115 for use with a liferaft; or

(2) A launching appliance approved on or before November 10, 2011 under approval series 160.163.

PART 133—LIFESAVING SYSTEMS

■ 5. The authority citation for part 133 continues to read as follows:

Authority: 46 U.S.C. 3306, 3307; Department of Homeland Security Delegation No. 0170.1.

■ 6. Revise § 133.150(b) to read as follows:

§ 133.150 Survival craft launching and recovery arrangements: General.

* * * * *

(b)(1) Each launching appliance must be a davit approved under 46 CFR part 160, subpart 160.132 for use with the intended craft, with a winch approved under 46 CFR part 160, subpart 160.115 for use with the intended craft.

(2) Each launching appliance for a davit-launched liferaft must include an automatic disengaging apparatus approved under 46 CFR part 160, subpart 160.170 and be either—

(i) A launching appliance described in paragraph (b)(1) of this section; or

(ii) A launching appliance approved on or before November 10, 2011 under approval series 160.163.

* * * * *

PART 160—LIFESAIVING EQUIPMENT

■ 7. The authority citation for part 160 continues to read as follows:

Authority: 46 U.S.C. 2103, 3306, 3703 and 4302; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

Subpart 160.010—Buoyant Apparatus for Merchant Vessels

■ 8. Revise § 160.010–1 to read as follows:

§ 160.010–1 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 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 Commandant (CG–5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593–7126. You may also inspect this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030 or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. You may obtain copies of the material from the sources specified in the following paragraphs.

(b) General Services Administration, Federal Acquisition Service, Office of the FAS Commissioner, 2200 Crystal Drive, 11th Floor, Arlington, VA 22202, 703–605–5400.

(1) Federal Standard 595C, Colors Used in Government Procurement, (January 16, 2008), IBR approved for § 160.010–4 (“FED–STD–595C”).

(2) [Reserved].

(c) International Maritime Organization (IMO), Publications Section, 4 Albert Embankment, London

SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), pages 7–71 (“IMO LSA Code”), IBR approved for § 160.010–3.

(2) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), Revised recommendation on testing of live-saving appliances, pages 79–254 (“IMO Revised recommendation on testing”), IBR approved for § 160.010–3.

(d) Military Specifications and Standards, Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111–5094, <https://assist.daps.dla.mil/quicksearch/>.

(1) MIL–P–19644C, Military Specification, Plastic Molding Material (Polystyrene Foam, Expanded Bead), (July 10, 1970), IBR approved for § 160.010–5 (“MIL–P–19644C”).

(2) MIL–P–21929B, Military Specification, Plastic Material, Cellular Polyurethane, Foam-In-Place, Rigid (2 and 4 Pounds per Cubic Foot), (August 11, 1969), IBR approved for § 160.010–5 (“MIL–P–21929B”).

(3) MIL–P–40619A, Military Specification, Plastic Material, Cellular, Polystyrene (For Buoyancy Applications), (December 9, 1968), IBR approved for § 160.010–5 (“MIL–P–40619A”).

(4) MIL–R–21607E(SH), Military Specification, Resins, Polyester, Low Pressure Laminating, Fire-Retardant, (May 25, 1990), IBR approved for § 160.010–5 (“MIL–R–21607E(SH)”).

■ 9. In § 160.010–2, revise the definition for “Commandant” to read as follows:

§ 160.010–2 Definitions.

* * * * *

Commandant means the Commandant (CG–5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593–7126.

* * * * *

■ 10. Amend § 160.010–3 as follows:

■ a. In paragraph (a)(1), remove the words “(SOLAS chapter III, regulation 38, paragraph 1.5 (III/38.1.5))” and add, in their place, the words “(IMO LSA Code, Chapter IV/4.1.1.5 (incorporated by reference, see § 160.010–1 of this subpart))”;

■ b. In paragraph (a)(2), remove the words “(Regulation III/38.2.1)” and add, in their place, the words “(IMO LSA Code, chapter IV/4.1.2.1)”;

■ c. In paragraph (a)(3), remove the words “(Regulation III/39.2.2)” and add, in their place, the words “(IMO LSA Code, chapter IV/4.2.2.2)”;

■ d. In paragraph (a)(4), remove the words “(Regulation III/39.5.1)” and add, in their place, the words “IMO LSA Code, chapter IV/4.2.5.4”;

■ e. In paragraph (a)(5), remove the words “(Regulation III/39.5.2)” and add, in their place, the words “(IMO LSA Code, chapter IV/4.2.5.2)”;

■ f. In paragraph (a)(9) introductory text, remove the words “(Regulation III/39.4.1)” and add, in their place, the words “(IMO LSA Code, chapter IV/4.2.4.1)”;

■ g. In paragraph (a)(10) introductory text, remove the words “(Regulation III/39.4.2)” and add, in their place, the words “(IMO LSA Code, chapter IV/4.2.4.2)”;

■ h. In paragraph (a)(11) introductory text, remove the symbol “§” and add, in its place, the words “46 CFR”; and remove the words “of this subchapter”;

■ i. In paragraph (a)(12), in the introductory text after the word “Equipment”, remove the words “(Regulation III/38.5.1)” and in the last sentence in the introductory text, remove the words “Regulation III/38.5.1” and add, in their places, the words “IMO LSA Code, Chapter IV/4.1.5”;

■ j. In paragraph (a)(13), remove the words “(Regulations III/39.7.3.4, III/39.7.3.5, and III/39.8.6)” after the words “requirements of § 160.151–33”, add the words “, as well as IMO LSA Code, chapter IV/4.2.6.3 and 4.2.7.1.6”; and remove the words “regulation III/39.8.6” and add, in their place, the words “IMO LSA Code, chapter IV/4.2.7.1.6”;

■ k. In paragraph (a)(14), remove the words “IMO Resolution A.689(17)” and add, in their place, the words “IMO Revised recommendation on testing (incorporated by reference, see § 160.010–1 of this subpart)”;

■ l. In paragraphs (a)(15) and (a)(16), remove the words “IMO Resolution A.689(17)” and add, in their place, the words “IMO Revised recommendation on testing”;

■ m. In paragraph (e) introductory text, remove the words “under the IMO International Code of Safety for High-Speed Craft (HSC Code)” and remove the words “Annex 10 to the HSC Code” and add, in their places, the words “Annex 11 to IMO Res. MSC.97(73)” and

■ n. Add paragraph (e)(9) to read as follows:

§ 160.010–3 Inflatable buoyant apparatus.

* * * * *

(e) * * *

(9) *Stability*. It must be fitted with stability pockets, in accordance with IMO LSA Code Chapter IV/4.2.5.4.

§ 160.010–4 [Amended]

■ 11. Amend § 160.010–4 as follows:

- a. In paragraph (g), remove the word “(1/4in.)” and add, in its place, the words “(1/4 in.)”; and
- b. In paragraph (n), remove the words “sections 13 and 14 of the “Color Names Dictionary”” and add, in their place, the words “sections 13 and 14 of FED–STD–595C (incorporated by reference, see § 160.010–1 of this subpart)”.
- 12. Amend § 160.010–5 as follows:
 - a. In paragraph (b) introductory text, remove the text “(CG–521)” and add, in its place, the text “(CG–5214)”;
 - b. Revise paragraph (b)(2) to read as set forth below;
 - c. Revise paragraph (b)(3) to read as set forth below;
 - d. Revise paragraph (b)(4) to read as set forth below”;
 - e. In paragraph (c)(1), remove the text “MIL–P–21607” and add, in its place, the text “MIL–P–21607E(SH) (incorporated by reference, see § 160.010–1 of this subpart)”;
 - f. In paragraphs (c)(2) and (c)(3), remove the text “(CG–521)” and add, in its place, the text “(CG–5214)”.

§ 160.010–5 Buoyant apparatus with plastic foam buoyancy.

* * * * *

(b) * * *

(2) MIL–P–19644C (incorporated by reference, see § 160.010–1 of this subpart).

(3) MIL–P–21929B (incorporated by reference, see § 160.010–1 of this subpart).

(4) MIL–P–40619A (incorporated by reference, see § 160.010–1 of this subpart).

* * * * *

§ 160.010–7 [Amended]

- 13. In § 160.010–7(a), remove the text “CG–521” and add, in its place, the text “CG–5214”.

Subpart 160.015 [Removed and Reserved]

- 14. Remove and reserve subpart 160.015.

Subpart 160.032 [Removed and Reserved]

- 15. Remove and reserve subpart 160.032.

Subpart 160.033 [Removed and Reserved]

- 16. Remove and reserve subpart 160.033.

Subpart 160.035 [Removed and Reserved]

- 17. Remove and reserve subpart 160.035.

Subpart 160.051—Inflatable Liferrafts for Domestic Service

- 18. Revise § 160.051–1 to read as follows:

§ 160.051–1 Scope.

(a) This subpart prescribes requirements for approval by the Coast Guard of A, B, and Coastal Service inflatable liferafts for use only in domestic service. These liferafts must comply with all of the requirements for SOLAS A and SOLAS B liferafts in subpart 160.151 except as specified in this subpart.

(b) This subpart does not apply to any A, B, and Coastal Service inflatable liferaft for use only in domestic service that has been approved by the Coast Guard before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION OF INTERIM RULE], so long as the liferaft satisfies the annual servicing requirements set forth in 46 CFR 160.151–57.

- 19. In § 160.051–3, add the definition for “Commandant”, in alphabetical order, to read as follows:

§ 160.051–3 Definitions.

* * * * *

Commandant means the Commandant (CG–5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593–7126.

§§ 160.051–5 through 160.051–9 [Redesignated as §§ 160.051–7 through 160.051–11]

- 20. Redesignate §§ 160.051–5, 160.051–7, and 160.051–9 as §§ 160.051–7, 160.051–9, and 160.051–11, respectively.

- 21. Add new § 160.051–5 to read as follows:

§ 160.051–5 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 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 Commandant (CG–5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593–7126. You may also inspect this material at the National Archives and Records Administration (NARA). For

information on the availability of this material at NARA, call 202–741–6030 or go to http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html. You may obtain copies of the material from the sources specified in the following paragraphs.

(b) International Maritime Organization (IMO) Publications Section, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), pages 7–71 (“IMO LSA Code”), IBR approved for §§ 160.051–7 and 160.051–9.

(2) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), Revised recommendation on testing of live-saving appliances, pages 79–254 (“IMO Revised recommendation on testing”), IBR approved for §§ 160.051–7 and 160.051–11.

§ 160.051–7 [Amended]

- 22. Amend newly redesignated § 160.051–7 as follows:

- a. In paragraph (a) introductory text, remove the words “Regulation III/38.1.5” and add, in their place, the words “IMO LSA Code chapter IV/4.1.1.5, (incorporated by reference, see § 160.051–5 of this subpart)”;

- b. In paragraph (b), remove the first instance of the words “Regulation III/38.1.5.5” and add, in their place, the words “IMO LSA Code, chapter IV/4.1.1.5.5”; and after the words “the viewing port”, remove the words “described in Regulation III/38.1.5.5”;

- c. In paragraph (c), remove the first instance of the words “Regulation III/38.1.5.6” and add, in their place, the words “IMO LSA Code, chapter IV/4.1.1.5.6”; and after the words “means of rainwater collection”, remove the words “described in Regulation III/38.1.5.6”;

- d. In paragraph (d), remove the words “Regulation III/38.2.1” and add, in their place, the words “IMO LSA Code, chapter IV/4.1.2.1”;

- e. In paragraph (e), remove the words “Regulation III/39.2.2” and add, in their place, the words “IMO LSA Code, chapter IV/4.2.2.2”;

- f. In paragraph (f), remove the words “Regulation III/39.4.1” and add, in their place, the words “IMO LSA Code, chapter IV/4.2.4.1”;

- g. In paragraph (g), remove the words “Regulation III/39.5.1” and add, in their place, the words “IMO LSA Code, chapter IV/4.2.5”;

- h. In paragraph (h), remove the first instance of the words “Regulation III/39.6.3” and add, in their place, the words “IMO LSA Code, chapter IV/4.1.3.4”; and after the words “controlled

interior lamp”, remove the words “described in Regulation III/39.6.3”;

■ i. In paragraph (i), remove the words “Regulations III/39.7.3.4 and III/39.7.3.5” and add, in their place, the words “IMO LSA Code, chapter IV/4.2.3.6”;

■ j. In paragraph (j), remove the words “IMO Resolution A.689(17)” and add, in their place, the words “IMO Revised recommendation on testing

(incorporated by reference, see § 160.051–5 of this subpart)”;

■ k. In paragraphs (k) and (l), remove the words “IMO Resolution A.689(17)” and add, in their place, the words “IMO Revised recommendation on testing”.

§ 160.051–9 [Amended]

■ 23. Amend newly redesignated § 160.051–9 as follows:

■ a. In paragraph (a), remove the words “Regulation III/38.2.1” and add, in their place, the words “IMO LSA Code chapter IV/4.1.2.1”;

■ b. In paragraph (b), remove the words “Regulations III/39.7.3.4 and III/39.7.3.5” and add, in their place, the words “IMO LSA Code, chapter IV/4.2.6.3”.

§ 160.051–11 [Amended]

■ 24. In newly redesignated § 160.051–11, paragraph (f), remove the words “IMO Resolution A.689(17)” and add, in their place, the words “IMO Revised recommendation on testing (incorporated by reference, see § 160.051–5 of this subpart)”.

■ 25. Add subpart 160.115 to read as follows:

Subpart 160.115—Launching Appliances—Winches

Sec.	
160.115–1	Scope.
160.115–3	Definitions.
160.115–5	Incorporation by reference.
160.115–7	Design, construction, and performance of winches.
160.115–9	Preapproval review.
160.115–11	[Reserved]
160.115–13	Approval inspections and tests for prototype winches.
160.115–15	Production inspections, tests, quality control, and conformance of winches.
160.115–17	Marking and labeling.
160.115–19	Operating instructions and information for the ship’s training manual.
160.115–21	Operation and maintenance instructions.
160.115–23	Procedure for approval of design or material change.
Subpart 160.115—Launching Appliances—Winches	

§ 160.115–1 Scope.

This subpart prescribes standards, tests, and procedures for seeking Coast

Guard approval of a winch used in conjunction with a davit approved under subpart 160.132 of this part for lifeboats approved under subpart 160.135 of this part, liferafts approved under subparts 160.051 or 160.151 of this part, and rescue boats approved under subparts 160.056 or 160.156 of this part.

§ 160.115–3 Definitions.

In addition to the definitions in the IMO LSA Code (incorporated by reference, see § 160.115–5 of this subpart), in this subpart, the term:

Commandant means the Commandant (CG–5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593–7126.

Independent laboratory has the same meaning as 46 CFR 159.001–3. A list of accepted independent laboratories is available from the Commandant and online at <http://cgmix.uscg.mil>.

Officer in Charge, Marine Inspection (OCMI) means an officer of the Coast Guard designated as such by the Commandant and who fulfills the duties described in 46 CFR 1.01–15(b). The “cognizant OCMI” is the OCMI who has immediate jurisdiction over a vessel or geographic area for the purpose of performing the duties previously described.

SOLAS means the International Convention for the Safety of Life at Sea, 1974, as amended.

§ 160.115–5 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 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 Commandant (CG–5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593–7126. You may also inspect this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030 or go to http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html. You may obtain copies of the material from the sources specified in the following paragraphs.

(b) International Maritime Organization (IMO) Publications Organization, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) IMO Resolution A.760(18), Symbols Related to Life-Saving

Appliances and Arrangements, (adopted November 4, 1993), IBR approved for § 160.115–19 (“IMO Res. A.760(18)”).

(2) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), pages 7–71 (“IMO LSA Code”), IBR approved for § 160.115–7.

(3) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), Revised recommendation on testing of live-saving appliances, pages 79–254 (“IMO Revised recommendation on testing”), IBR approved for §§ 160.115–7, 160.115–13, and 160.115–15.

(4) MSC/Circular 980, Standardized Life-saving Appliance Evaluation and Test Report Forms, (February 13, 2001), IBR approved for § 160.115–13 (“IMO MSC Circ. 980”).

(5) MSC.1/Circular 1205, Guidelines for Developing Operation and Maintenance Manuals for Lifeboat Systems, (May 26, 2006), IBR approved for § 160.115–21 (“IMO MSC.1 Circ. 1205”).

§ 160.115–7 Design, construction, and performance of winches.

(a) To seek Coast Guard approval of a winch, a manufacturer must comply with, and each winch must meet, the requirements of the following—

(1) IMO LSA Code, chapter I/1.2.2 and chapter VI/6.1. (incorporated by reference, see § 160.115–5 of this subpart) applicable to the design and intended service of the winch;

(2) IMO Revised recommendation on testing, Part 1/8.1 (incorporated by reference, see § 160.115–5 of this subpart) applicable to the winch;

(3) 46 CFR part 159; and

(4) This subpart.

(b) Each winch must meet each of the following requirements:

(1) *Materials.* (i) All gears must be machine cut and made of steel, bronze, or other suitable materials properly keyed to shafts. The use of cast iron is not permitted for these parts.

(ii) Metals in contact with each other must be either galvanically compatible or insulated with suitable non-porous materials. Provisions must also be made to prevent loosening or tightening resulting from differences of thermal expansion, freezing, buckling of parts, galvanic corrosion, or other incompatibilities.

(iii) Screws, nuts, bolts, pins, keys, and other similar hardware, securing moving parts must be fitted with suitable lock washers, cotter pins, or locks to prevent them from coming adrift.

(2) *Bearings and gears.* (i) Positive means of lubrication must be provided for all bearings.

(ii) When worm gears are used, the worm wheel must operate in an oil bath.

Means to easily check the oil level in the gear case must be provided.

(iii) The manufacturer must furnish a lubrication chart and a plate attached to the winch indicating the lubricant recommended for extremes in temperature.

(3) *Guards*. All moving parts must have suitable guards.

(4) *Welding*. Welding must be performed by welders certified by the Commandant, a classification society recognized by the Commandant in accordance with 46 CFR 8.220, the U.S. Navy, or the national body where the winch is constructed or the national body's designated recognized organization. Only electrodes intended for use with the material being welded may be used. All welds must be checked using appropriate non-destructive tests.

(5) *Winch drums*. (i) A winch must have grooved drums unless otherwise approved by the Commandant.

(ii) The diameter of the drums must be at least 16 times the diameter of the falls.

(iii) Drums must be so arranged as to keep the falls separate, and to pay out the falls at the same rate. Clutches between drums are not permitted unless bolted locking devices are used.

(6) *Winch motors*. For a winch powered by electric or hydraulic motors, or portable power units such as air or electric drills—

(i) Positive means must be provided for controlling the power to the winch, arranged so that the operator must hold the master switch or controller in the "on" or "hoist" position for hoisting, and when released, will immediately shut off the power;

(ii) A clutch must be fitted to disengage the power installation during the lowering operation;

(iii) A means must be provided to disconnect power to the winch before a hand crank can be engaged with the winch operating shaft, and this interruption of power must be maintained while the hand crank is so engaged;

(iv) The air or electric power outlet for a portable power unit must be located adjacent to the winch where the unit is to be coupled, and the outlet must be interconnected with, and protected by, the same system of safety devices as required for a winch with built-in-motors;

(v) A main line emergency disconnect switch, the opening of which disconnects all electrical potential to the winch, must be provided. This switch must be located in a position accessible to the person in charge of the boat stowage and must be in a position from which the movement of both davit arms

can be observed as they approach the final stowed position;

(vi) Limit switches, one for each davit arm, must be provided to limit the travel of the davit arms as they approach the final stowed position. These switches must—

(A) Be so arranged that the opening of either switch will disconnect all electrical potential of the circuit in which the switches are connected;

(B) Be arranged to stop the travel of the davit arms not less than 0.3m (12 in) from their final stowed position; and

(C) Remain open until the davit arms move outboard beyond the tripping position of the switches;

(vii) Motor clutches, when used, must be of either frictional or positive engaging type. When one motor is used for two winches, the clutch must be so arranged that only one winch may be engaged at any one time. The clutch operating lever must be capable of remaining in any position when subject to vibration and must be so arranged that when in neutral position both lifeboats may be lowered simultaneously;

(viii) Motors, switches, controls, and cables must be waterproof if installed on an open deck. Controls may be of the drip-proof type if installed in a deck house or under deck;

(ix) Hydraulic systems must be in accordance with 46 CFR part 58, subpart 58.30; and

(x) Electrical installations must comply with 46 CFR 111.01–9, 111.01–11, 111.01–19, 111.25, 111.55, 111.70, and 111.95.

(7) *Quick return*. For a winch used to launch an inflatable liferaft means must be provided for rapidly retrieving the falls by hand power.

(c) Determinations of equivalence of design, construction, and materials will be made by the Commandant only.

§ 160.115–9 Preapproval review.

(a) Except as provided in paragraph (c) of this section, the Commandant must conduct the preapproval review required by this section, in accordance with 46 CFR 159.005–5.

(b) *Manufacturer requirements*. To seek Coast Guard approval of a winch, the manufacturer must submit an application to the Commandant meeting the requirements of 46 CFR 159.005–5 for preapproval review. To meet the requirements of 46 CFR 159.005–5(a)(2), the manufacturer must submit in triplicate—

(1) A list of drawings, specifications, manuals, and any other documentation submitted, with each document identified by number, title, revision number, and issue date;

(2) General arrangement and assembly drawings, including principal dimensions;

(3) Stress calculations for all load carrying parts;

(4) An operation, maintenance, and training manual as described in §§ 160.115–19 and 160.115–21 of this subpart;

(5) A description of the quality control procedures and recordkeeping that will apply to the production of the winch, which must include, but is not limited to—

(i) The system for checking material certifications received from suppliers;

(ii) The method for controlling the inventory of materials;

(iii) The method for checking quality of fabrication and joints, including welding inspection procedures; and

(iv) The inspection checklists used during various stages of fabrication to assure that the approved winch complies with the approved plans and the requirements of this subpart;

(6) Any other drawing(s) necessary to show that the winch complies with the requirements of this subpart;

(7) The location or address of all manufacturing sites, including the name and address of any subcontractors, where the winch will be constructed; and

(8) The name of the independent laboratory that will perform the duties prescribed in § 160.115–15 of this subpart.

(c) At the request of the manufacturer and discretion of the Commandant, an independent laboratory may conduct preapproval review required by this section; so long as the preapproval review is conducted in accordance with the procedures agreed upon between the independent laboratory and Commandant under 46 CFR part 159, subpart 159.010.

(d) *Plan quality*. All plans and specifications submitted to the Commandant under this section must—

(1) Be provided in English, including all notes, inscriptions, and designations for configuration control;

(2) Address each of the applicable items in paragraph (b) of this section in sufficient detail to show that the winch meets the construction requirements of this subpart;

(3) Accurately depict the proposed winch;

(4) Be internally consistent;

(5) Be legible; and

(6) If reviewed by an independent laboratory under paragraph (c) of this section, include the independent laboratory's attestation that the plans meet the quality requirements of this section.

(e) *Alternatives.* Alternatives in materials, parts, or construction, and each item replaced by an alternative, must be clearly indicated as such in the plans and specifications submitted to the Commandant under this section.

(f) *Coast Guard review.* If the plans or specifications do not comply with the requirements of this section, Coast Guard review may be suspended, and the applicant notified accordingly.

§ 160.115–11 [Reserved]

§ 160.115–13 Approval inspections and tests for prototype winches.

(a) If the manufacturer is notified that the information submitted in accordance with § 160.115–9 of this subpart is satisfactory to the Commandant, the manufacturer may proceed with fabrication of the prototype winch and the approval inspections and tests required under this section.

(b) Except as provided in paragraph (f) of this section, the Coast Guard must conduct the approval inspections and witness the approval tests required under this section.

(c) *Manufacturer requirements.* To proceed with approval inspections and tests required by this section, the manufacturer must—

(1) Notify the Commandant and cognizant Officer in Charge, Marine Inspection (OCMI) of where the approval inspections and tests required under this section will take place, and such notifications must be in sufficient time to allow making travel arrangements;

(2) Arrange a testing schedule that allows for a Coast Guard inspector to travel to the site where the testing is to be performed;

(3) Admit the Coast Guard inspector to any place where work or testing is performed on winches or their component parts and materials for the purpose of—

(i) Conducting inspections as necessary to determine that the prototype—

(A) Conforms with the plans reviewed under § 160.115–9 of this subpart;

(B) Is constructed by the methods and with the materials specified in the plans reviewed under § 160.115–9 of this subpart; and

(C) When welding is part of the construction process, is constructed by the welding procedure and materials as per the plans reviewed under § 160.115–9 of this subpart and the welders are appropriately qualified;

(ii) Assuring that the quality-assurance program of the manufacturer is satisfactory;

(iii) Witnessing tests; and

(iv) Taking samples of parts or materials for additional inspections or tests; and

(4) Make available to the Coast Guard inspector the affidavits or invoices from the suppliers of all essential materials used in the production of winches, together with records identifying the lot or serial numbers of the winches in which such materials were used.

(d) *Tests.* (1) *IMO Revised recommendation on testing.* Each prototype winch of each design must pass each of the tests described in IMO Revised recommendation on testing, part 1, paragraph 8.1 (incorporated by reference, see § 160.115–5 of this subpart) applicable to winches.

(2) *Visual inspection.* Each winch must be visually inspected to confirm—

(i) Compliance with this subpart;

(ii) Conformance with the examined plans; and

(iii) Ease of operation and maintenance.

(3) *Hydraulic controls.* If the winch motor includes a fluid power and control system, a test of the hydraulic controls must be conducted in accordance with 46 CFR 58.30–35.

(e) *Test waiver.* The Commandant may waive certain tests for a winch similar in construction to a winch that has successfully completed the tests.

(f) At the request of the manufacturer and discretion of the Commandant, an independent laboratory may perform approval inspections and witness approval tests required by this section so long as the inspections and tests are performed and witnessed in accordance with the procedures agreed upon between the independent laboratory and Commandant under 46 CFR part 159, subpart 159.010.

(g) After completion of approval inspections and tests required by this section, the manufacturer must comply with the requirements of 46 CFR 159.005–9(a)(5) by preparing and submitting to the Commandant for review—

(1) The prototype approval test report containing the same information recommended by IMO MSC Circ. 980 (incorporated by reference, see § 160.115–5). The report must include a signed statement by the Coast Guard inspector (or independent laboratory as permitted under paragraph (f) of this section) who witnessed the testing, indicating that the report accurately describes the testing and its results; and

(2) The final version of the plans required under § 160.115–9 of this subpart in triplicate.

(h) The Commandant will review the report and plans submitted under

paragraph (g) of this section, and if satisfactory to the Commandant, will approve the plans under 46 CFR 159.005–13.

§ 160.115–15 Production inspections, tests, quality control, and conformance of winches.

(a) Unless the Commandant directs otherwise, an independent laboratory must perform or witness, as appropriate, inspections, tests, and oversight required by this section. Production inspections and tests of a winch must be carried out in accordance with the procedures for independent laboratory inspection in 46 CFR part 159, subpart 159.007 and in this section, unless the Commandant authorizes alternative tests and inspections. The Commandant may prescribe additional production tests and inspections necessary to maintain quality control and to monitor compliance with the requirements of this subpart.

(b) *Manufacturer's responsibility.* The manufacturer must—

(1) Institute a quality control procedure to ensure that all production winches are produced to the same standard, and in the same manner, as the prototype winch approved by the Commandant. The manufacturer's quality control personnel must not work directly under the department or person responsible for either production or sales;

(2) Schedule and coordinate with the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section) to ensure that all tests are performed as described in this section;

(3) Submit to the Commandant a yearly report that contains the following—

(i) Serial number and date of final assembly of each winch constructed;

(ii) The name of the representative of the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section); and

(iii) Name of the vessel and company receiving the winch, if known;

(4) Ensure that the arrangement and materials entering into the construction of the winch are in accordance with plans approved under § 160.115–13(h) of this subpart;

(5) Allow an independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section) access to any place where materials are stored for the winch, work or testing is performed on winches or their component parts and materials, or records are retained to meet the requirements of paragraph (c) of this section, below, for the purpose of—

(i) Assuring that the quality control program of the manufacturer is satisfactory;

(ii) Witnessing tests; or

(iii) Taking samples of parts or materials for additional inspections or tests; and

(6) Ensure that the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section) conducts the inspections and witnesses the tests required by paragraph (e) of this section, and further conducts a visual inspection to verify that the winches are being made in accordance with the plans approved under § 160.115–13(h) of this subpart and the requirements of this subpart.

(c) *Recordkeeping.* The manufacturer must maintain records in accordance with 46 CFR 159.007–13. The manufacturer must keep records of all items listed in this section for at least 5 years from the date of termination of approval of each winch. The records must include—

(1) A copy of this subpart, other CFR sections referenced in this subpart, and each document listed in § 160.115–5 of this subpart;

(2) A copy of the approved plans, documentation, and certifications;

(3) A current certificate of approval for each approved winch;

(4) Affidavits, certificates, or invoices from the suppliers identifying all essential materials used in the production of approved winches, together with records identifying the serial numbers of the winches in which such materials were used;

(5) Records of all structural welding and name of operator(s);

(6) Records of welder certificates, training, and qualifications;

(7) Date and results of calibration of test equipment and the name and address of the company or agency that performed the calibration;

(8) The serial number of each production winch, along with records of its inspections and tests carried out under this section; and

(9) The original purchaser of each winch and the vessel on which it was installed, if known.

(d) *Independent laboratory responsibility.* The independent laboratory must perform or witness, as appropriate, the inspections and tests under this section for each Coast Guard-approved winch to be installed on a U.S. flag vessel. If the manufacturer also produces winches for approval by other maritime safety administrations, the inspections may be coordinated with inspection visits for those administrations.

(e) *Production inspections and tests.*

(1) Each approved winch must be inspected and tested in accordance with the procedures in 46 CFR part 159, subpart 159.007 and the brake test described in IMO Revised recommendation on testing, part 2, paragraph 6.1.1 (incorporated by reference, see § 160.115–5 of this subpart).

(2) The lowering tests described in IMO Revised recommendation on testing, Part 2, paragraph 6.1 may be performed if the installation height is known. If these tests are performed, the results must be in accordance with 46 CFR 199.153(h) through (j).

§ 160.115–17 Marking and labeling.

(a) Each winch must be marked with a plate or label permanently affixed in a conspicuous place readily accessible for inspection and sufficiently durable to withstand continuous exposure to environmental conditions at sea for the life of the winch.

(b) The plate or label must be in English, but may also be in other languages.

(c) The plate or label must contain the—

(1) Name and address of the manufacturer;

(2) Manufacturer's model identification;

(3) Name of the independent laboratory that witnessed the prototype or production tests;

(4) Serial number of the winch;

(5) U.S. Coast Guard approval number;

(6) Month and year of manufacture;

(7) Safe working load of the winch; and

(8) Word "SOLAS".

§ 160.115–19 Operating instructions and information for the ship's training manual.

(a) Each winch must have instructions and information for the ship's training manual that use the symbols from IMO Res. A.760(18) (incorporated by reference, see § 160.115–5 of this subpart) to describe the location and operation of the winch.

(b) The instructions and information required by paragraph (a) of this section may be combined with similar material for survival craft and rescue boats, and their complete launching systems.

(c) The winch manufacturer must make operating instructions and information required by paragraph (a) of this section available in English to the purchaser of a winch approved by the Coast Guard.

§ 160.115–21 Operation and maintenance instructions.

(a) Each winch must have operation and maintenance instructions that—

(1) Follows the general format and content specified in IMO MSC.1 Circ. 1205 (incorporated by reference, see § 160.115–5 of this subpart); and

(2) Includes a checklist for use in monthly, external visual inspections of the winch.

(b) The winch manufacturer must make the manual required by paragraph (a) of this section available in English to the purchaser of a winch approved by the Coast Guard.

(c) The operation and maintenance instructions required by paragraph (a) of this section may be combined with similar material for survival craft and rescue boats, and their complete launching systems.

§ 160.115–23 Procedure for approval of design or material change.

(a) Each change in design, material, or construction from the plans approved under 46 CFR 159.005–13 and § 160.115–13(h) of this subpart must be approved by the Commandant before being used in any production winch. The manufacturer must submit any such change following the procedures in § 160.115–9 of this subpart, but documentation on items that are unchanged from the plans approved under 46 CFR 159.005–13 and § 160.115–13(h) of this subpart need not be resubmitted.

(b) Unless determined by the Commandant to be unnecessary, a prototype winch with each change described in paragraph (a) of this section must be made and tested according to the procedures for new approvals in §§ 160.115–9 through 160.115–13 of this subpart.

(c) Determinations of equivalence of design, construction, and materials will be made by the Commandant only.

■ 26. Add subpart 160.132 to read as follows:

Subpart 160.132—Launching Appliances—Davits

Sec.

160.132–1 Scope.

160.132–3 Definitions.

160.132–5 Incorporation by reference.

160.132–7 Design, construction, and performance of davits.

160.132–9 Preapproval review.

160.132–11 [Reserved]

160.132–13 Approval inspections and tests for prototype davits.

160.132–15 Production inspections, tests, quality control, and conformance of davits.

160.132–17 Marking and labeling.

160.132–19 Operating instructions and information for the ship's training manual.

160.132–21 Operation and maintenance instructions.

160.132–23 Procedure for approval of design or material change.

Subpart 160.132—Launching Appliances—Davits

§ 160.132–1 Scope.

This subpart prescribes standards, tests, and procedures for seeking Coast Guard approval of a davit used in conjunction with a winch approved under subpart 160.115 of this part for lifeboats approved under subpart 160.135 of this part, liferafts approved under subparts 160.051 or 160.151 of this part, and rescue boats approved under subparts 160.056 or 160.156 of this part.

§ 160.132–3 Definitions.

In addition to the definitions in the IMO LSA Code (incorporated by reference, see § 160.132–5 of this subpart), in this subpart, the term:

Commandant means the Commandant (CG–5214), U. S. Coast Guard, 2100 Second Street SW., Stop 7126, Washington, DC 20593–7126.

Independent laboratory has the same meaning as 46 CFR 159.001–3. A list of accepted independent laboratories is available from the Commandant and online at <http://cgmix.uscg.mil>.

Officer in Charge, Marine Inspection (OCMI) means an officer of the Coast Guard designated as such by the Commandant and who fulfills the duties described in 46 CFR 1.01–15(b). The “cognizant OCMI” is the OCMI who has immediate jurisdiction over a vessel or geographic area for the purpose of performing the duties previously described.

SOLAS means the International Convention for the Safety of Life at Sea, 1974, as amended.

§ 160.132–5 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 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 Commandant (CG–5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593–7126. You may also inspect this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030 or go to http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html. You may obtain

copies of the material from the sources specified in the following paragraphs

(b) American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA, 19428–2959.

(1) ASTM A 36/A 36M–08, Standard Specification for Carbon Structural Steel, (approved May 15, 2008), IBR approved for § 160.132–7 (“ASTM A 36”).

(2) ASTM A 216/A 216M–08, Standard Specification for Steel Castings, Carbon, Suitable for Fusion Welding, for High-Temperature Service, (approved November 1, 2008), IBR approved for § 160.132–7 (“ASTM A 216”).

(c) International Maritime Organization (IMO) Publications Section, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) IMO Resolution A.760(18), Symbols Related to Life-Saving Appliances and Arrangements, (adopted November 4, 1993), IBR approved for § 160.132–19 (“IMO Res. A.760(18)”).

(2) International Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), pages 7–71 (“IMO LSA Code”), IBR approved for §§ 160.132–3 and 160.132–7.

(3) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), Revised recommendation on testing of life-saving appliances, pages 79–254 (“IMO Revised recommendation on testing”), IBR approved for §§ 160.132–7, 160.132–13, and 160.132–15.

(4) MSC/Circular 980, Standardized Life-Saving Appliance Evaluation and Test Report Forms, (February 13, 2001), IBR approved for § 160.132–13 (“IMO MSC Circ. 980”).

(5) MSC.1/Circular 1205, Guidelines for Developing Operation and Maintenance Manuals for Lifeboat Systems, (May 26, 2006), IBR approved for § 160.132–21 (“IMO MSC.1 Circ. 1205”).

§ 160.132–7 Design, construction, and performance of davits.

(a) To seek Coast Guard approval of a davit, a manufacturer must comply with, and each davit must meet, the requirements of following—

(1) IMO LSA Code chapter I/1.2.2 and Chapter VI/6.1 (incorporated by reference, see § 160.132–5 of this subpart) applicable to the design and intended service of the davit;

(2) IMO Revised recommendation on testing, part 1/8.1 (incorporated by reference, see § 160.132–5 of this subpart) applicable to the design and intended service of the davit;

(3) 46 CFR part 159; and

(4) This subpart.

(b) Each davit must meet the following requirements—

(1) *Materials*. Each major structural component of each davit must be constructed of steel. Other materials may be used if accepted by the Commandant as equivalent or superior—

(i) Structural steel made by the open-hearth or electric furnace process must be in accordance with ASTM A 36 (incorporated by reference, see § 160.132–5 of this subpart);

(ii) Steel castings not intended for fusion welding must be in accordance with ASTM A 36, Grades U–60–30, 60–30, 65–30, 65–35, and 70–36;

(iii) Steel castings intended to be fabricated by fusion welding must be in accordance with ASTM A 216 (incorporated by reference, see § 160.132–5 of this subpart), Grades WCA and WCB;

(iv) Cast iron must not be used in the construction of a davit; and

(v) Metals in contact with each other must be either galvanically compatible or insulated with suitable non-porous materials. Provisions must also be made to prevent loosening or tightening resulting from differences of thermal expansion, freezing, buckling of parts, galvanic corrosion, or other incompatibilities;

(2) *Bearings*. (i) Bearings must be of non-ferrous metal, or must be of the roller or ball-bearing type;

(ii) Positive means of lubrication must be provided; and

(iii) The manufacturer must furnish a lubrication chart for each davit together with a plate attached to the davit indicating the lubricants recommended for extremes in temperature;

(3) *Guards*. All moving parts must have guards;

(4) *Welding*. Welding must be performed by welders certified by the Commandant, a classification society recognized by the Commandant in accordance with 46 CFR 8.220, the U.S.

Navy, or the national body where the davit is constructed or the national body’s designated recognized organization. Only electrodes intended for use with the material being welded may be used. All welds must be checked using appropriate non-destructive tests; and

(5) *Hydraulic systems*, if installed, must be in accordance with 46 CFR part 58, subpart 58.30.

(c) Determinations of equivalence of design, construction, and materials will be made by the Commandant only.

§ 160.132–9 Preapproval review.

(a) Except as provided in paragraph (c) of this section, the Commandant

must conduct the preapproval review required by this section, in accordance with 46 CFR 159.005–5.

(b) *Manufacturer requirements.* To seek Coast Guard approval of a davit, the manufacturer must submit an application to the Commandant meeting the requirements of 46 CFR 159.005–5 for preapproval review. To meet the requirements of 46 CFR 159.005–5(a)(2), the manufacturer must submit in triplicate—

(1) A list of drawings, specifications, manuals, and any other documentation submitted, with each document identified by number, title, revision issue, and date;

(2) General arrangement and assembly drawings, including principal dimensions;

(3) Stress calculations for all load carrying parts;

(4) An operation, maintenance, and training manual as described in §§ 160.132–19 and 160.132–21 of this subpart;

(5) A description of the quality control procedures and recordkeeping that will apply to the production of the davit, which must include, but is not limited to—

(i) The system for checking material certifications received from suppliers;

(ii) The method for controlling the inventory of materials;

(iii) The method for checking quality of fabrication and joints, including welding inspection procedures; and

(iv) The inspection checklists used during various stages of fabrication to assure that the approved release mechanism complies with the approved plans and the requirements of this subpart;

(6) Any other drawing(s) necessary to show that the davit complies with the requirements of this subpart;

(7) The location or address of all manufacturing sites, including the name and address of any subcontractors, where the davit will be constructed; and

(8) The name of the independent laboratory that will perform the duties prescribed in § 160.132–15 of this subpart.

(c) At the request of the manufacturer and discretion of the Commandant, an independent laboratory may conduct preapproval review required by this section; so long as the preapproval review is conducted in accordance with the procedures agreed upon between the independent laboratory and Commandant under 46 CFR subpart 159.010.

(d) *Plan quality.* All plans and specifications submitted to the Commandant under this section must—

(1) Be provided in English, including all notes, inscriptions, and designations for configuration control;

(2) Address each of the applicable items in paragraph (b) of this section in sufficient detail to show that the davit meets the construction requirements of this subpart;

(3) Accurately depict the proposed davit;

(4) Be internally consistent;

(5) Be legible; and

(6) If reviewed by an independent laboratory under paragraph (c) of this section, include the independent laboratory's attestation that the plans meet the quality requirements of this section.

(e) *Alternatives.* Alternatives in materials, parts, or construction, and each item replaced by an alternative, must be clearly indicated as such in the plans and specifications submitted to the Commandant under this section.

(f) *Coast Guard review.* If the plans or specifications do not comply with the requirements of this section, Coast Guard review may be suspended, and the applicant notified accordingly.

§ 160.132–11 [Reserved]

§ 160.132–13 Approval inspections and tests for prototype davits.

(a) If the manufacturer is notified that the information submitted in accordance with § 160.132–9 of this subpart is satisfactory to the Commandant, the manufacturer may proceed with fabrication of the prototype davit, and the approval inspections and tests required under this section.

(b) Except as provided in paragraph (f) of this section, the Coast Guard must conduct the approval inspections and witness the approval tests required under this section.

(c) *Manufacturer requirements.* To proceed with approval inspections and tests required by this section, the manufacturer must—

(1) Notify the Commandant and cognizant Officer in Charge, Marine Inspection (OCMI) of where the approval inspections and tests required under this section will take place, and such notifications must be in sufficient time to allow making travel arrangements;

(2) Arrange a testing schedule with the cognizant OCMI that allows for a Coast Guard inspector to travel to the site where the testing is to be performed;

(3) Admit the Coast Guard inspector to any place where work or testing is performed on davits or their component parts and materials for the purpose of—

(i) Conducting inspections as necessary to determine that the prototype—

(A) Conforms with the plans reviewed under § 160.132–9 of this subpart;

(B) Is constructed by the methods and with the materials specified in the plans reviewed under § 160.132–9 of this subpart; and

(C) When welding is part of the construction process, is constructed by the welding procedure and materials as per the plans reviewed under § 160.132–9 of this subpart and the welders are appropriately qualified;

(ii) Assuring that the quality-assurance program of the manufacturer is satisfactory;

(iii) Witnessing tests; and

(iv) Taking samples of parts or materials for additional inspections or tests; and

(4) Make available to the Coast Guard inspector the affidavits or invoices from the suppliers of all essential materials used in the production of davits, together with records identifying the lot or serial numbers of the davits in which such materials were used.

(d) *Tests.* (1) *IMO Revised recommendation on testing.* Each prototype davit of each design must pass each of the tests described in IMO Revised recommendation on testing, part 1, paragraph 8.1 (incorporated by reference, see § 160.132–5 of this subpart) applicable to the design and service of the davit.

(2) *Visual inspection.* Each davit must be visually inspected to confirm—

(i) Compliance with this subpart;

(ii) Conformance with the examined plans; and

(iii) Ease of operation and maintenance.

(3) *Hydraulic controls.* If the davit design includes a fluid power and control system, a test of the hydraulic controls must be conducted in accordance with 46 CFR 58.30–35.

(e) *Test waiver.* The Commandant may waive certain tests for a davit similar in construction to a davit that has successfully completed the tests.

(f) At the request of the manufacturer and discretion of the Commandant, an independent laboratory may perform approval inspections and witness approval tests required by this section so long as the inspections and tests are performed and witnessed in accordance with the procedures agreed upon between the independent laboratory and Commandant under 46 CFR part 159, subpart 159.010.

(g) After completion of approval inspections and tests required by this section, the manufacturer must comply with the requirements of 46 CFR

159.005–9(a)(5) by preparing and submitting to the Commandant for review—

(1) The prototype approval test report containing the same information recommended by IMO MSC Circ. 980 (incorporated by reference, see § 160.132–5 of this subpart). The report must include a signed statement by the Coast Guard inspector (or independent laboratory as permitted by paragraph (f) of this section) who witnessed the testing, indicating that the report accurately describes the testing and its results; and

(2) The final version of the plans required under § 160.132–9 of this subpart in triplicate.

(h) The Commandant will review the report and plans submitted under paragraph (g) of this section, and if satisfactory to the Commandant, will approve the plans under 46 CFR 159.005–13.

§ 160.132–15 Production inspections, tests, quality control, and conformance of davits.

(a) Unless the Commandant directs otherwise, an independent laboratory must perform or witness, as appropriate, inspections, tests, and oversight required by this section. Production inspections and tests of davits must be carried out in accordance with the procedures for independent laboratory inspection in 46 CFR part 159, subpart 159.007 and in this section, unless the Commandant authorizes alternative tests and inspections. The Commandant may prescribe additional production tests and inspections necessary to maintain quality control and to monitor compliance with the requirements of this subpart.

(b) *Manufacturer's responsibility.* The manufacturer must—

(1) Institute a quality control procedure to ensure that all production davits are produced to the same standard, and in the same manner, as the prototype davit approved by the Commandant. The manufacturer's quality control personnel must not work directly under the department or person responsible for either production or sales;

(2) Schedule and coordinate with the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section), to ensure that all tests are performed as described in this section;

(3) Submit to the Commandant a yearly report that contains the following—

(i) Serial number and date of final assembly of each davit constructed;

(ii) The name of the representative of the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section); and

(iii) Name of the vessel and company receiving the davit, if known;

(4) Ensure that the arrangement and materials entering into the construction of the davit are in accordance with plans approved under § 160.132–13(h) of this subpart;

(5) Allow an independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section) access to any place where materials are stored for the davit, work or testing is performed on davits or their component parts and materials, or records are retained to meet the requirements of paragraph (c) of this section, below, for the purpose of—

(i) Assuring that the quality control program of the manufacturer is satisfactory;

(ii) Witnessing tests; or

(iii) Taking samples of parts or materials for additional inspections or tests; and

(6) Ensure that the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section) conducts the inspections and witnesses the tests required by paragraph (e) of this section, and further conducts a visual inspection to verify that the davits are being made in accordance with the plans approved under § 160.132–13(h) of this subpart and the requirements of this subpart.

(c) *Recordkeeping.* The manufacturer must maintain records in accordance with 46 CFR 159.007–13. The manufacturer must keep records of all items listed in this section for at least 5 years from the date of termination of approval of each davit. The records must include—

(1) A copy of this subpart, other CFR sections referenced in this subpart, and each document listed in § 160.132–5 of this subpart;

(2) A copy of the approved plans, documentation, and certifications;

(3) A current certificate of approval for each approved davit;

(4) Affidavits, certificates, or invoices from the suppliers identifying all essential materials used in the production of approved davits, together with records identifying the serial numbers of davits in which such materials were used;

(5) Records of all structural welding and name of operator(s);

(6) Records of welder certificates, training, and qualifications;

(7) Date and results of calibration of test equipment and the name and

address of the company or agency that performed the calibration;

(8) The serial number of each production davit, along with records of its inspections and tests carried out under this section; and

(9) The original purchaser of each davit and the vessel on which it was installed, if known.

(d) *Independent laboratory responsibility.* The independent laboratory must perform or witness, as appropriate, the inspections and tests under this section for each Coast Guard-approved davit to be installed on a U.S.-flagged vessel. If the manufacturer also produces davits for approval by other maritime safety administrations, the inspections may be coordinated with inspection visits for those administrations.

(e) *Production inspections and tests.* Each approved davit must be inspected and tested in accordance with the procedures in 46 CFR part 159, subpart 159.007 and the load test described in IMO Revised recommendation on testing, Part 2, paragraph 6.1.1 (incorporated by reference, see § 160.132–5 of this subpart).

§ 160.132–17 Marking and labeling.

(a) Each davit must be marked with a plate or label permanently affixed in a conspicuous place readily for inspection and sufficiently durable to withstand continuous exposure to environmental conditions at sea for the life of the davit.

(b) The plate or label must be in English, but may also be in other languages.

(c) The plate or label must contain the—

(1) Name and address of the manufacturer;

(2) Manufacturer's model identification;

(3) Name of the independent laboratory that witnessed the prototype or production tests;

(4) Serial number of the davit;

(5) U.S. Coast Guard approval number;

(6) Month and year of manufacture;

(7) Safe working load of the davit; and

(8) Word "SOLAS".

§ 160.132–19 Operating instructions and information for the ship's training manual.

(a) Each davit must have instructions and information for the ship's training manual that use the symbols from IMO Res. A.760(18) (incorporated by reference, see § 160.132–5 of this subpart) to describe the location and operation of the davit.

(b) The instructions and information required by paragraph (a) of this section may be combined with similar material

for survival craft and rescue boats, and their complete launching systems.

(c) The davit manufacturer must make operating instructions and information required by paragraph (a) of this section available in English to the purchaser of a davit approved by the Coast Guard.

§ 160.132–21 Operation and maintenance instructions.

(a) Each davit must have operation and maintenance instructions that—

(1) Follows the general format and content specified in IMO MSC.1 Circ. 1205 (incorporated by reference, see § 160.132–5 of this subpart); and

(2) Includes a checklist for use in monthly, external visual inspections of the davit.

(b) The davit manufacturer must make the manual required by paragraph (a) of this section available in English to the purchaser of a davit approved by the Coast Guard.

(c) The operation and maintenance instructions required by paragraph (a) of this section may be combined with similar material for survival craft and rescue boats, and their complete launching systems.

§ 160.132–23 Procedure for approval of design or material change.

(a) Each change in design, material, or construction from the plans approved under 46 CFR 159.005–13 and § 160.132–13(h) of this subpart must be approved by the Commandant before being used in any production davit. The manufacturer must submit any such change following the procedures in § 160.132–9 of this subpart, but documentation on items that are unchanged from the plans approved under 46 CFR 159.005–13 and § 160.115–13(h) of this subpart need not be resubmitted.

(b) Unless determined by the Commandant to be unnecessary, a prototype davit with each change described in paragraph (a) of this section must be made and tested according to the procedures for new approvals in §§ 160.132–9 through 160.132–13 of this subpart.

(c) Determinations of equivalence of design, construction, and materials will be made by the Commandant only.

■ 27. Add subpart 160.133 to read as follows:

Subpart 160.133—Release Mechanisms for Lifeboats and Rescue Boats (SOLAS)

Sec.

160.133–1 Scope.

160.133–3 Definitions.

160.133–5 Incorporation by reference.

160.133–7 Design, construction, and performance of release mechanisms.

160.133–9 Preapproval review.

160.133–11 [Reserved]

160.133–13 Approval inspections and tests for prototype release mechanisms.

160.133–15 Production inspections, tests, quality control, and conformance of release mechanisms.

160.133–17 Marking and labeling.

160.133–19 Operating instructions and information for the ship's training manual.

160.133–21 Operation and maintenance instructions.

160.133–23 Procedure for approval of design or material change.

Subpart 160.133—Release Mechanisms for Lifeboats and Rescue Boats (SOLAS)

§ 160.133–1 Scope.

This subpart prescribes standards, tests, and procedures for seeking Coast Guard approval of a release mechanism used for davit-launched and free-fall lifeboats approved under subpart 160.135 of this part, and rescue boats approved under subpart 160.156 of this part.

§ 160.133–3 Definitions.

In addition to the definitions in the IMO LSA Code (incorporated by reference, see § 160.133–5 of this subpart), in this subpart, the term:

Commandant means the Commandant (CG–5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593–7126.

Full load means the weight of the complete lifeboat or rescue boat including all required equipment, provisions, fuel, and the number of persons for which it is approved. This is also known as the “condition B” weight.

Independent laboratory has the same meaning as 46 CFR 159.001–3. A list of accepted independent laboratories is available from the Commandant and online at <http://cgmix.uscg.mil>.

Light load means the weight of the complete lifeboat or rescue boat empty and does not include fuel, required equipment, or the equivalent weight of persons. This is also known as the “condition A” weight.

Officer in Charge, Marine Inspection (OCMI) means an officer of the Coast Guard designated as such by the Commandant and who fulfills the duties described in 46 CFR 1.01–15(b). The “cognizant OCMI” is the OCMI who has immediate jurisdiction over a vessel or geographic area for the purpose of performing the duties previously described.

SOLAS means the International Convention for the Safety of Life at Sea, 1974, as amended.

§ 160.133–5 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 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 Commandant (CG–5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593–7126. You may also inspect this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030 or go to http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html. You may obtain copies of the material from the sources specified in the following paragraphs.

(b) American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA, 19428–2959.

(1) ASTM A 36/A 36M–08, Standard Specification for Carbon Structural Steel, (approved May 15, 2008), IBR approved for § 160.133–7 (“ASTM A 36”).

(2) ASTM A 276–08a, Standard Specification for Stainless Steel Bars and Shapes, (approved October 1, 2008), IBR approved for § 160.133–7 (“ASTM A 276”).

(3) ASTM A 313/A 313M–08, Standard Specification for Stainless Steel Spring Wire, (approved October 1, 2008), IBR approved for § 160.133–7 (“ASTM A 313”).

(4) ASTM A 314–08, Standard Specification for Stainless Steel Billets and Bars for Forging, (approved October 1, 2008), IBR approved for § 160.133–7 (“ASTM A 314”).

(5) ASTM A 653/A 653M–08, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process, (approved July 15, 2008), IBR approved for §§ 160.133–7, 160.133–13, and 160.133–15. (“ASTM A 653”).

(6) ASTM F 1166–07, Standard Practice for Human Engineering Design for Marine Systems, Equipment, and Facilities, (approved January 1, 2007), IBR approved for § 160.133–7 (“ASTM F 1166”).

(c) International Maritime Organization (IMO), Publications Section, 4 Albert Embankment, London, SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) IMO Resolution A.760(18), Symbols Related to Life-Saving

Appliances and Arrangements, (adopted November 4, 1993), IBR approved for § 160.133-19 (“IMO Res. A.760(18)”).

(2) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), pages 7-71 (“IMO LSA Code”), IBR approved for §§ 160.133-3 and 160.133-7.

(3) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), Revised recommendation on testing of life-saving appliances, pages 79-254 (“IMO Revised recommendation on testing”), IBR approved for §§ 160.133-7 and 160.133-13 (“IMO Revised recommendation on testing”).

(4) MSC/Circular 980, Standardized Life-saving Appliance Evaluation and Test Report Forms, (February 13, 2001), IBR approved for § 160.133-13 (“IMO MSC Circ. 980”).

(5) MSC.1/Circular 1205, Guidelines for Developing Operation and Maintenance Manuals for Lifeboat Systems, (May 26, 2006), IBR approved for § 160.133-21 (“IMO MSC.1 Circ. 1205”).

§ 160.133-7 Design, construction, and performance of release mechanisms.

(a) To seek Coast Guard approval of a release mechanism, a manufacturer must comply with, and each release mechanism must meet, the requirements of the following—

(1) IMO LSA Code, chapter IV/4.4.7.6 (incorporated by reference, see § 160.133-5 of this subpart), and a release mechanism for free-fall lifeboats must also meet the applicable provisions of chapter VI/6.1.4;

(2) IMO Revised recommendation on testing, Part 1/6.9 (incorporated by reference, see § 160.133-5 of this subpart);

(3) 46 CFR part 159; and

(4) This subpart.

(b) Each release mechanism must meet the following requirements—

(1) *Design.* All functions of the release mechanism, including removal of interlocks, operation of the release handle, resetting the hooks, and reattaching the falls to the hooks, must be designed to be operable by persons wearing immersion suits;

(2) Each release mechanism should be designed following standard human engineering practices described in ASTM F 1166 (incorporated by reference, see § 160.133-5 of this subpart). Design limits should be based on a range from the fifth percentile female to the ninety-fifth percentile male values for critical body dimensions and functional capabilities as described in ASTM F 1166. The dimensions for a person wearing an immersion suit correspond to the arctic clothed dimensions of ASTM F 1166;

(3) *Steel.* Each major structural component of each release mechanism must be constructed of steel. Other materials may be used if accepted by the Commandant as equivalent or superior. Sheet steel and plate must be low-carbon, commercial quality, either corrosion resistant or galvanized as per ASTM A 653 (incorporated by reference, see § 160.133-5 of this subpart), coating designation G115. Structural steel plates and shapes must be carbon steel as per ASTM A 36 (incorporated by reference, see § 160.133-5 of this subpart). All steel products, except corrosion resistant steel, must be galvanized to provide high-quality zinc coatings suitable for the intended service life in a marine environment. Each fabricated part must be galvanized after fabrication. Corrosion resistant steel must be a type 302 stainless steel per ASTM A 276, ASTM A 313 or ASTM A 314 (incorporated by reference, see § 160.133-5 of this subpart) or another corrosion resistant stainless steel of equal or superior corrosion resistant characteristics;

(4) *Welding.* Welding must be performed by welders certified by the Commandant, a classification society recognized by the Commandant in accordance with 46 CFR 8.220, the U.S. Navy, or the national body where the release mechanism is constructed or the national body’s designated recognized organization. Only electrodes intended for use with the material being welded may be used. All welds must be checked using appropriate non-destructive tests;

(5) Metals in contact with each other must be either galvanically compatible or insulated with suitable non-porous materials. Provisions must also be made to prevent loosening or tightening resulting from differences of thermal expansion, freezing, buckling of parts, galvanic corrosion, or other incompatibilities;

(6) Screws, nuts, bolts, pins, keys, and other similar hardware, securing moving parts must be fitted with suitable lock washers, cotter pins, or locks to prevent them from coming adrift;

(7) The on-load operation of the release mechanism must require two separate, deliberate actions by the operator;

(8) The mechanical protection required by LSA Code Chapter IV/4.4.7.6.2.2 must only be able to be engaged when the release mechanism is properly and completely reset. Proper engagement of the mechanical protection must be visually indicated;

(9) The release and recovery procedures required by LSA Code Chapter IV/4.4.7.6.5 must be included as an illustrated operation instruction

plate or placard. The plate or placard must be corrosion resistant and weatherproof and must be marked with the word “Danger”. The illustrations must correspond exactly to those used in the instruction and maintenance manual provided by the manufacturer;

(10) The release lever or control must be red in color, and the area immediately surrounding the control must be a sharply contrasting light color;

(11) The release lever and its connection to the release mechanism must be of sufficient strength so that there is no deformation of the release lever or the release control assembly during on-load release;

(12) Positive means of lubrication must be provided for each bearing which is not permanently lubricated. Points of lubrication must be so located that they are clearly visible and accessible in the installed position in the boat;

(13) A hydraulic system, if used to activate the release mechanism, must be in accordance with 46 CFR part 58, subpart 58.30, with hose and fittings in accordance with 46 CFR part 56, subpart 56.60, except that—

(i) Push-on type fittings such as Aeroquip 1525-X, 25156-X, and FC332-X are not permitted;

(ii) The length of nonmetallic flexible hose is limited to 760 mm (30 in); and

(iii) If a hand pump is provided, adequate space must be provided for the hand pump or hand operation;

(14) Each release mechanism designed to launch a boat by free-fall must not be able to carry any weight until the release mechanism is properly reset, and each of the two independent activation systems required to be operated from inside the boat must require at least two independent actions from different locations inside the boat to release the hook; and

(15) Each release mechanism must have mechanical protection against accidental or premature release that can only be engaged when the release mechanism is properly and completely reset. Proper engagement of the mechanical protection must be visually indicated.

(c) Determinations of equivalence of design, construction, and materials will be made by the Commandant only.

§ 160.133-9 Preapproval review.

(a) Except as provided in paragraph (c) of this section, the Commandant must conduct the preapproval review, required by this section, in accordance with 46 CFR 159.005-5.

(b) *Manufacturer requirements.* To seek Coast Guard approval of a release

mechanism, the manufacturer must submit an application to the Commandant meeting the requirements of 46 CFR 159.005–5 for preapproval review. To meet the requirements of 46 CFR 159.005–5(a)(2), the manufacturer must submit in triplicate—

(1) A list of drawings, specifications, manuals, and any other documentation submitted, with each document identified by number, title, revision issue, and date;

(2) General arrangement and assembly drawings, including principal dimensions;

(3) Stress calculations for all load carrying parts, including the release hooks, release mechanisms, and connections;

(4) Hydraulic systems drawings and specifications, if installed;

(5) Drawings of all signs and placards showing actual inscription, format, color, and size;

(6) An operation, maintenance, and training manual as described in §§ 160.133–19 and 160.133–21 of this subpart;

(7) A description of the quality control procedures and recordkeeping that will apply to the production of the release mechanism, which must include but is not limited to—

(i) The system for checking material certifications received from suppliers;

(ii) The method for controlling the inventory of materials;

(iii) The method for checking quality of fabrication and joints, including welding inspection procedures; and

(iv) The inspection checklists used during various stages of fabrication to assure that the approved release mechanism complies with the approved plans and the requirements of this subpart;

(8) Full details of any other unique capability;

(9) Any other drawing(s) necessary to show that the release mechanism complies with the requirements of this subpart;

(10) The location or address of all manufacturing sites, including the name and address of any subcontractors, where the release mechanism will be constructed; and

(11) The name of the independent laboratory that will perform the duties prescribed in § 160.133–15 of this subpart.

(c) At the request of the manufacturer and discretion of the Commandant, an independent laboratory may conduct preapproval review required by this section, so long as the preapproval review is conducted in accordance with the procedures agreed upon between the independent laboratory and

Commandant under 46 CFR part 159, subpart 159.010.

(d) *Plan quality.* The plans and specifications submitted to the Commandant under this section must—

(1) Be provided in English, including all notes, inscriptions, and designations for configuration control;

(2) Address each of the applicable items in paragraph (b) of this section in sufficient detail to show that the release mechanism meets the construction requirements of this subpart;

(3) Accurately depict the proposed release mechanism;

(4) Be internally consistent;

(5) Be legible; and

(6) If reviewed by an independent laboratory under paragraph (c) of this section, include the independent laboratory's attestation that the plans meet the quality requirements of this section.

(e) *Alternatives.* Alternatives in materials, parts, or construction, and each item replaced by an alternative, must be clearly indicated as such in the plans and specifications submitted to the Commandant under this section.

(f) *Coast Guard review.* If the plans or specifications do not comply with the requirements of this section, Coast Guard review may be suspended, and the applicant notified accordingly.

§ 160.133–11 [Reserved]

§ 160.133–13 Approval inspections and tests for prototype release mechanisms.

(a) If the manufacturer is notified that the information submitted in accordance with § 160.133–9 of this subpart is satisfactory to the Commandant, the manufacturer may proceed with fabrication of the prototype release mechanism, and the approval inspections and tests required under this section.

(b) Except as provided in paragraph (f) of this section, the Coast Guard must conduct the approval inspections and witness the approval tests required under this section.

(c) *Manufacturer requirements.* To proceed with approval inspections and tests required by this section, the manufacturer must—

(1) Notify the Commandant and cognizant Officer in Charge, Marine Inspection (OCMI) of where the approval inspections and tests required under this section will take place, and such notification must be in sufficient time to allow making travel arrangements;

(2) Arrange a testing schedule that allows for a Coast Guard inspector to travel to the site where the testing is to be performed;

(3) Admit the Coast Guard inspector to any place where work or testing is performed on release mechanisms or their component parts and materials for the purpose of—

(i) Conducting inspections as necessary to determine that the prototype—

(A) Conforms with the plans reviewed under § 160.133–9 of this subpart;

(B) Is constructed by the methods and with the materials specified in the plans reviewed under § 160.133–9 of this subpart; and

(C) When welding is part of the construction process, is constructed by the welding procedure and materials as per the plans reviewed under § 160.133–9 of this subpart and the welders are appropriately qualified;

(ii) Assuring that the quality-assurance program of the manufacturer is satisfactory;

(iii) Witnessing tests; and

(iv) Taking samples of parts or materials for additional inspections or tests; and

(4) Make available to the Coast Guard inspector the affidavits or invoices from the suppliers of all essential materials used in the production of release mechanisms, together with records identifying the lot or serial numbers of the release mechanisms in which such materials were used.

(d) *Tests.* (1) *Prototype release mechanism readiness.* All tests must be conducted on a complete release mechanism.

(2) *IMO Revised recommendation on testing.* Each prototype release mechanism of each design must pass each of the tests described in IMO Revised recommendation on testing, part 1, paragraph 6.9 (incorporated by reference, see § 160.133–5 of this subpart) applicable to davit-launched or free-fall lifeboats. Tests must be conducted in accordance with these paragraphs of IMO Revised recommendation on testing, Part 1, with the following modifications—

(i) *Visual inspection.* Each release mechanism must be visually inspected to confirm—

(A) Compliance with this subpart;

(B) Conformance with the examined plans; and

(C) Ease of operation and maintenance;

(ii) *Operation.* Operation of the off-load control, for a davit-launched boat, must be tested to confirm that the release lever cannot be shifted to release the boat in either the full load or light load condition. For a free-fall boat, the operation of the hook release must be demonstrated using both activation

systems and may be tested without launching the boat;

(iii) *Materials*. Steel meeting ASTM A 653 (incorporated by reference, see § 160.133–5 of this subpart) must meet the coating mass and bend tests requirement specified under ASTM A 653 after galvanizing or other anti-corrosion treatment has been applied. This compliance can be ascertained through a supplier's certification or by conducting actual tests;

(iv) *Tensile tests*. The release mechanism hook assembly and supporting structure must be tensile tested in a jig built to load the hook assembly in the same way it would be loaded when installed in a boat. The hook assembly will be approved for a maximum of one-sixth of the highest load applied without failure;

(v) *Universal joints*. This test is required if the release mechanism employs universal joints to transmit the release power from the control to the hook release. One of each type and size of universal joint must be set up in a jig with the angles of leads set at 0 (zero), 30, and 60 degrees, respectively. A torque of 540 Nm (400 ft lb) must be applied. This torque must be applied with the connecting rod secured beyond the universal and with the lever arm in the horizontal position. There must be no permanent set, or undue stress, as a result of this test; and

(vi) *Hydraulic controls*. If the release mechanism includes a fluid power and control system, a test of the hydraulic controls must be conducted in accordance with 46 CFR 58.30–35.

(e) *Test waiver*. The Commandant may waive certain tests for a release mechanism identical in construction to smaller and larger release mechanisms that have successfully completed the tests. However, stress calculations in accordance with § 160.133–9(b)(3) of this subpart must still be submitted. Tests associated with release mechanism components that have already been accepted by the Commandant are not required to be repeated.

(f) At the request of the manufacturer and discretion of the Commandant, an independent laboratory may perform approval inspections and witness approval tests required by this section so long as the inspections and tests are performed and witnessed in accordance with the procedures agreed upon between the independent laboratory and Commandant under 46 CFR part 159, subpart 159.010.

(g) After completion of approval inspections and tests required by this section, the manufacturer must comply with the requirements of 46 CFR

159.005–9(a)(5) by preparing and submitting to the Commandant for review—

(1) The prototype approval test report containing the same information recommended by IMO MSC Circ. 980 (incorporated by reference, see § 160.133–5 of this subpart). The report must include a signed statement by the Coast Guard inspector (or independent laboratory as permitted under paragraph (f) of this section) who witnessed the testing, indicating that the report accurately describes the testing and its results; and

(2) The final plans of the release mechanism as built, in triplicate. The plans must include the instructions for training and maintenance described in §§ 160.133–19 and 160.133–21 of this subpart, respectively.

(h) The Commandant will review the report and plans submitted under paragraph (g) of this section, and if satisfactory to the Commandant, will approve the plans under 46 CFR 159.005–13.

§ 160.133–15 Production inspections, tests, quality control, and conformance of release mechanisms.

(a) Unless the Commandant directs otherwise, an independent laboratory must perform or witness, as appropriate, inspections, tests, and oversight required by this section. Production inspections and tests of release mechanisms must be carried out in accordance with the procedures for independent laboratory inspection in 46 CFR part 159, subpart 159.007 and in this section, unless the Commandant authorizes alternative tests and inspections. The Commandant may prescribe additional production tests and inspections necessary to maintain quality control and to monitor compliance with the requirements of this subpart.

(b) *Manufacturer's responsibility*. The manufacturer must—

(1) Institute a quality control procedure to ensure that all production release mechanisms are produced to the same standard, and in the same manner, as the prototype release mechanism approved by the Commandant. The manufacturer's quality control personnel must not work directly under the department or person responsible for either production or sales;

(2) Schedule and coordinate with the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section) to ensure that all tests are performed as described in this section;

(3) Submit to the Commandant, a yearly report that contains the following—

(i) Serial number and date of final assembly of each release mechanism constructed;

(ii) The name of the representative of the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section); and

(iii) Serial number and model of the lifeboat or rescue boat in which the release mechanism is installed, if known;

(4) Ensure that the arrangement and materials entering into the construction of the release mechanism are in accordance with plans approved under § 160.133–13(h) of this subpart;

(5) Allow an independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section) access to any place where materials are stored for the release mechanism, work or testing is performed on release mechanism or their component parts and materials, or records are retained to meet the requirements of paragraph (c) of this section, for the purpose of—

(i) Assuring that the quality control program of the manufacturer is satisfactory;

(ii) Witnessing tests; or

(iii) Taking samples of parts or materials for additional inspections or tests; and

(6) Ensure that the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section) conducts the inspections and witnesses the tests required by paragraph (e) of this section, and further conducts a visual inspection to verify that the release mechanisms are being made in accordance with the approved plans approved under § 160.133–13(h) of this subpart and the requirements of this subpart.

(c) *Recordkeeping*. The manufacturer must maintain records in accordance with 46 CFR 159.007–13. The manufacturer must keep records of all items listed in this section for at least 5 years from the date of termination of approval of each release mechanism. The records must include—

(1) A copy of this subpart, other CFR sections referenced in this subpart, and each document listed in § 160.133–5 of this subpart;

(2) A copy of the approved plans, documentation, and certifications;

(3) A current certificate of approval for each approved release mechanism;

(4) Affidavits, certificates, or invoices from the suppliers identifying all essential materials used in the production of approved release mechanisms, together with records

identifying the serial numbers of the release mechanisms in which such materials were used;

(5) Records of all structural welding and name of operator(s);

(6) Records of welder certificates, training, and qualifications;

(7) Date and results of calibration of test equipment and the name and address of the company or agency that performed the calibration;

(8) The serial number of each production release mechanism, along with records of its inspections and tests carried out under this section; and

(9) The original purchaser of each release mechanism and the vessel on which it was installed, if known.

(d) *Independent laboratory responsibility.* The independent laboratory must perform or witness, as appropriate, the inspections and tests under paragraph (e) of this section for each Coast Guard-approved release mechanism to be installed on a U.S.-flagged vessel. If the manufacturer also produces release mechanisms for approval by other maritime safety administrations, the inspections may be coordinated with inspection visits for those administrations.

(e) *Production inspections and tests.* Each finished release mechanism must be visually inspected. The manufacturer must develop and maintain a visual inspection checklist designed to ensure that all applicable requirements have been met. Each approved release mechanism constructed with non-corrosion resistant steel must be confirmed to have met the coating mass and bend tests requirement specified under ASTM A 653 (incorporated by reference, see § 160.133-5 of this subpart) after galvanizing or other anti-corrosion treatment has been applied. This compliance can be ascertained through a supplier's certification papers or through conducting actual tests.

§ 160.133-17 Marking and labeling.

(a) Each hook body of a release mechanism must be marked with a plate or label permanently affixed in a conspicuous place readily accessible for inspection and sufficiently durable to withstand continuous exposure to environmental conditions at sea for the life of the release mechanism.

(b) The plate or label must be in English, but may also be in other languages.

(c) The plate or label must contain the—

(1) Manufacturer's name and model identification;

(2) Name of the independent laboratory that witnessed the prototype or production tests;

(3) Serial number of the release mechanism;

(4) U.S. Coast Guard approval number;

(5) Month and year of manufacture;

(6) Safe working load of the release mechanism; and

(7) Word "SOLAS."

§ 160.133-19 Operating instructions and information for the ship's training manual.

(a) Each release mechanism must have instructions and information for the ship's training manual that use the symbols from IMO Res. A.760(18) (incorporated by reference, see § 160.133-5 of this subpart) to describe the location and operation of the release mechanism.

(b) The instructions and information required by paragraph (a) of this section may be combined with similar material for survival craft and rescue boats, and their launching systems.

(c) The release mechanism manufacturer must make the instructions and information required by paragraph (a) of this section available—

(1) In English to purchasers of release mechanisms approved by the Coast Guard; and

(2) In the form of an instruction placard providing simple procedures and illustrations for operation of the release mechanism. The placard must be not greater than 36 cm (14 in) by 51 cm (20 in), and must be made of durable material and suitable for display inside a lifeboat and rescue boat and/or near launching appliances on vessels.

§ 160.133-21 Operation and maintenance instructions.

(a) Each release mechanism must have operation and maintenance instructions that—

(1) Follows the general format and content specified in IMO MSC.1 Circ. 1205 (incorporated by reference, see § 160.133-5 of this subpart); and

(2) Includes a checklist for use in monthly, external visual inspections of the release mechanism.

(b) The release mechanism manufacturer must make the manual required by paragraph (a) of this section available in English to purchasers of a release mechanism approved by the Coast Guard.

(c) The operation and maintenance instructions required by paragraph (a) of this section may be combined with similar material for survival craft and rescue boats, and their launching systems.

§ 160.133-23 Procedure for approval of design, material, or construction change.

(a) Each change in design, material, or construction from the plans approved under 46 CFR 159.005-13 and § 160.133-13(h) of this subpart must be approved by the Commandant before being used in any production release mechanism. The manufacturer must submit any such change following the procedures set forth in § 160.133-9 of this subpart, but documentation on items that are unchanged from the plans approved under 46 CFR 159.005-13 and § 160.133-13(h) of this subpart need not be resubmitted.

(b) Unless determined by the Commandant to be unnecessary, a prototype release mechanism with each change described in paragraph (a) of this section must be made and tested according to the procedures for new approvals in §§ 160.133-9 through 160.133-13 of this subpart.

(c) Determinations of equivalence of design, material, or construction will be made by the Commandant only.

■ 28. Add subpart 160.135 to read as follows:

Subpart 160.135—Lifeboats (SOLAS)

Sec.

160.135-1 Scope.

160.135-3 Definitions.

160.135-5 Incorporation by reference.

160.135-7 Design, construction, and performance of lifeboats.

160.135-9 Preapproval review.

160.135-11 Fabrication of prototype lifeboats for approval.

160.135-13 Approval inspections and tests for prototype lifeboats.

160.135-15 Production inspections, tests, quality control, and conformance of lifeboats.

160.135-17 Marking and labeling.

160.135-19 Operating instructions and information for the ship's training manual.

160.135-21 Operation and maintenance instructions.

160.135-23 Procedure for approval of design or material change.

Subpart 160.135—Lifeboats (SOLAS)

§ 160.135-1 Scope.

This subpart prescribes standards, tests, and procedures for seeking Coast Guard approval of a lifeboat.

§ 160.135-3 Definitions.

In addition to the definitions in the IMO LSA Code (incorporated by reference, see § 160.135-5 of this subpart), in this subpart, the term:

Commandant means the Commandant (CG-5214), U.S. Coast Guard, 2100 Second Street SW., Stop 7126, Washington, DC 20593-7126.

Fiberglass Reinforced Plastic (FRP) means a composite structural material formed by electrical-grade glass fibers in Coast Guard accepted catalyst activated resin.

Full load means the weight of the complete lifeboat including all required equipment, provisions, fuel, and the number of persons for which it is approved. This is also known as the "condition B" weight.

Independent laboratory has the same meaning as 46 CFR 159.001-3. A list of accepted independent laboratories is available from the Commandant and online at <http://cgmix.uscg.mil>.

Light load means the weight of the complete lifeboat empty and does not include fuel, required equipment, or the equivalent weight of persons. This is also known as the "condition A" weight.

Officer in Charge, Marine Inspection (OCMI) means an officer of the Coast Guard designated as such by the Commandant and who fulfills the duties described in 46 CFR 1.01-15(b). The "cognizant OCMI" is the OCMI who has immediate jurisdiction over a vessel or geographic area for the purpose of performing the duties previously described.

Positive Stability means the condition of a lifeboat such that when it is displaced a small amount in any direction from upright, it returns on its own to the position before displacement.

SOLAS means the International Convention for the Safety of Life at Sea, 1974, as amended.

§ 160.135-5 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 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 Commandant (CG-5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593-7126. You may also inspect this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. You may obtain copies of the material from the sources specified in the following paragraphs.

(b) American Society for Testing and Materials (ASTM), 100 Barr Harbor

Drive, PO Box C700, West Conshohocken, PA, 19428-2959.

(1) ASTM A 36/A 36M-08, Standard Specification for Carbon Structural Steel, (approved May 15, 2008), IBR approved for §§ 160.135-7 and 160.135-15 ("ASTM A 36").

(2) ASTM A 276-08a, Standard Specification for Stainless Steel Bars and Shapes, (approved October 1, 2008), IBR approved for § 160.135-7 ("ASTM A 276").

(3) ASTM A 313/A 313M-08, Standard Specification for Stainless Steel Spring Wire, (approved October 1, 2008), IBR approved for § 160.135-7 ("ASTM A 313").

(4) ASTM A 314-08, Standard Specification for Stainless Steel Billets and Bars for Forging, (approved October 1, 2008), IBR approved for § 160.135-7 ("ASTM A 314").

(5) ASTM A 653/A 653M-08, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process, (approved July 15, 2008), IBR approved for §§ 160.135-7, 160.135-11, and 160.135-15 ("ASTM A 653").

(6) ASTM B 127-05 (Reapproved 2009), Standard Specification for Nickel-Copper Alloy (UNS N04400) Plate, Sheet, and Strip, (approved October 1, 2009), IBR approved for § 160.135-7 ("ASTM B 127").

(7) ASTM B 209-07, Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate, (approved August 1, 2007), IBR approved for § 160.135-7 ("ASTM B 209").

(8) ASTM D 638-08, Standard Test Method for Tensile Properties of Plastics, (approved April 1, 2008), IBR approved for § 160.135-11 ("ASTM D 638").

(9) ASTM D 790-07e1, Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials, (approved September 1, 2007), IBR approved for § 160.135-11 ("ASTM D 790").

(10) ASTM D 2584-08, Standard Test Method of Ignition Loss for Cured Reinforced Resins, (approved May 1, 2008), IBR approved for §§ 160.135-11 and 160.135-15 ("ASTM D 2584").

(11) ASTM D 4029-09, Standard Specification for Finished Woven Glass Fabrics, (approved January 15, 2009), IBR approved for § 160.135-7 ("ASTM D 4029").

(12) ASTM F 1166-07, Standard Practice for Human Engineering Design for Marine Systems, Equipment, and Facilities, (approved January 1, 2007),

IBR approved for §§ 160.135-7 and 160.135-13 ("ASTM F 1166").

(c) General Services Administration, Federal Acquisition Service, Office of the FAS Commissioner, 2200 Crystal Drive, 11th Floor, Arlington, VA 22202, 703-605-5400.

(1) Federal Standard 595C, Colors Used in Government Procurement, (January 16, 2008), IBR approved for § 160.135-7 ("FED-STD-595C").

(2) [Reserved].

(d) International Maritime Organization (IMO), Publications Section, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) IMO Resolution A.658(16), Use and Fitting of Retro-Reflective Materials on Life-Saving Appliances, (adopted October 19, 1989), IBR approved for § 160.135-7 ("IMO Res. 658(16)").

(2) IMO Resolution A.760(18), Symbols Related to Life-Saving Appliances and Arrangements, (adopted November 4, 1993), IBR approved for §§ 160.135-7 and 160.135-19 ("IMO Res. A.760(18)").

(3) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), pages 7-71 ("IMO LSA Code"), IBR approved for §§ 160.135-3, 160.135-7, and 160.135-13.

(4) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), Revised recommendation on testing of life-saving appliances, pages 79-254 ("IMO Revised recommendation on testing"), IBR approved for §§ 160.135-7 and 160.135-13.

(5) MSC/Circular 980, Standardized life-saving Appliance Evaluation and Test Report Forms, (February 13, 2001), IBR approved for §§ 160.135-7 and 160.135-13 ("IMO MSC Circ. 980").

(6) MSC.1/Circular 1205, Guidelines for Developing Operation and Maintenance Manuals for Lifeboat Systems, (May 26, 2006), IBR approved for § 160.135-21 ("IMO MSC.1 Circ. 1205").

(e) International Organization for Standardization (ISO): ISO Central Secretariat [ISO Copyright Office], Case Postale 56, CH-1211 Geneve 20, Switzerland.

(1) ISO 527-1:1993(E), Plastics—Determination of tensile properties, part 1: General Principles, First Edition (June 15, 1993), IBR approved for § 160.135-11 ("ISO 527").

(2) ISO 1172:1996(E), Textile-glass-reinforced plastics—Prepregs, moulding compounds and laminates—Determination of the textile-glass and mineral-filler content—Calcination methods, Second Edition (December 15, 1996), IBR approved for §§ 160.135-11 and 160.135-15 ("ISO 1172").

(3) ISO 14125:1998(E), Fibre-reinforced plastic composites—Determination of flexural properties, First Edition (March 1, 1998), IBR approved for § 160.135–11 (“ISO 14125”).

(f) Military Specifications and Standards, Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111–5094, <https://assist.daps.dla.mil/quicksearch/>.

(1) A–A–55308, Commercial Item Description, Cloth And Strip, Laminated Or Coated, Vinyl Nylon Or Polyester, High Strength, Flexible, (May 13, 1997), IBR approved for §§ 160.135–7 and 160.135–15. (“A–A–55308”).

(2) MIL–C–19663D, Military Specification, Cloth, Woven Roving, For Plastic Laminate, (August 4, 1988), IBR approved for § 160.135–7 (“MIL–C–19663D”).

(3) MIL–P–17549D(SH), Military Specification, Plastic Laminates, Fibrous Glass Reinforced, Marine Structural, (August 31, 1981), IBR approved for § 160.135–11 (“MIL–P–17549D(SH)”).

(4) MIL–R–21607E(SH), Military Specification, Resins, Polyester, Low Pressure Laminating, Fire-Retardant, (May 25, 1990), IBR approved for § 160.135–11,

§ 160.135–7 Design, construction, and performance of lifeboats.

(a) To seek Coast Guard approval of a lifeboat, a manufacturer must comply with, and each lifeboat must meet, the requirements of the following—

(1) IMO LSA Code, Chapter IV (incorporated by reference, see § 160.135–5 of this subpart) applicable to the type of lifeboat;

(2) IMO Revised recommendation on testing, Part 1/6 (incorporated by reference, see § 160.135–5 of this subpart) applicable to the type of lifeboat;

(3) 46 CFR part 159; and

(4) This subpart.

(b) Each lifeboat must meet the following requirements:

(1) *Design.* (i) Each lifeboat, other than a totally enclosed lifeboat, must be designed to be operable by persons wearing immersion suits.

(ii) Each lifeboat should be designed following standard human engineering practices described in ASTM F 1166 (incorporated by reference, see § 160.135–5 of this subpart). Design limits should be based on a range from the fifth percentile female to the ninety-fifth percentile male values for critical body dimensions and functional capabilities as described in ASTM F 1166. The dimensions for a person wearing an immersion suit correspond

to the arctic clothed dimensions of ASTM F 1166.

(2) *Visibility from operator's station.*

(i) The operator's station must be designed such that the operator, when seated at the control station, has visibility 360 degrees around the lifeboat, with any areas obstructed by the lifeboat structure or its fittings visible by moving the operator's head and torso.

(ii) The operator, while still being able to steer and control the speed of the lifeboat, must be able to see the water—

(A) Over a 90 degree arc within 3 m (9 ft, 10 in) of each side of the lifeboat;

(B) Over a 30 degree arc within 1 m (3 ft, 3 in) of each side of the lifeboat; and

(C) Within 0.5 m (1 ft, 8 in) of the entrances designated for recovering persons from the water.

(iii) In order to see a person in the water during recovery or docking operations, a hatch must be provided so that the operator can stand with his or her head outside the lifeboat for increased visibility, provided the operator can still steer and control the speed of the lifeboat.

(3) *Construction.* Each major rigid structural component of each lifeboat must be constructed of steel, aluminum, Fiber Reinforced Plastic (FRP), or materials accepted by the Commandant as equivalent or superior.

(i) *General.* Metals in contact with each other must be either galvanically compatible or insulated with suitable non-porous materials. Provisions must also be made to prevent loosening or tightening resulting from differences of thermal expansion, freezing, buckling of parts, galvanic corrosion, or other incompatibilities.

(ii) *Steel.* Sheet steel and plate must be low carbon, commercial quality, either corrosion resistant or galvanized as per ASTM A 653, coating designation G90 (incorporated by reference, see § 160.135–5 of this subpart). Structural steel plates and shapes must be carbon steel as per ASTM A 36 (incorporated by reference, see § 160.135–5 of this subpart), or an equivalent or superior steel accepted by the Commandant. All steel products, except corrosion resistant steel, must be galvanized to provide high quality zinc coatings suitable for the intended service life in a marine environment. Corrosion resistant steel must be a type 302 stainless steel per ASTM A 276, ASTM A 313 or ASTM A 314 (incorporated by reference, see § 160.135–5 of this subpart) or another corrosion resistant stainless steel of equal or superior corrosion resistant characteristics.

(iii) *Aluminum.* Aluminum and aluminum alloys must conform to ASTM B 209 (incorporated by reference, see § 160.135–5 of this subpart) and be high purity for good marine corrosion resistance, free of iron, and containing not more than 0.6 percent copper.

(iv) *Fiber Reinforced Plastic.*

(A) *Resin.* Any resin used for the hull, canopy, hatches, rigid covers, and enclosures for the engine, transmission, and engine accessories, must be fire retardant and accepted by the Commandant in accordance with 46 CFR part 164, subpart 164.120.

(B) *Glass reinforcement.* Any glass reinforcement used must have good laminated wet strength retention and must meet the appropriate specification in this paragraph. Glass cloth must be a finished fabric woven from “E” electrical glass fiber yarns meeting ASTM D 4029 commercial style designation 1564 (incorporated by reference, see § 160.135–5 of this subpart). Woven roving must conform to MIL–C–19663D (incorporated by reference, see § 160.135–5 of this subpart). Other glass materials equivalent or superior in strength, design, wet out, and efficiency will be given consideration on specific request to the Commandant.

(C) *Laminate.* All exposed surfaces of any finished laminate must present a smooth finish, and there must be no protruding surface fibers, open voids, pits, cracks, bubbles, or blisters. The laminate must be essentially free from resin-starved or overimpregnated areas, and no foreign matter must remain in the finished laminate. The entire laminate must be fully cured and free of tackiness, and must show no tendency to delaminate, peel, or craze in any overlay. The laminate must not be released from the mold until a Barcol hardness reading of not less than 40–55 is obtained from at least 10 places on the non-gel coated surface, including all interior inner and outer hull surfaces and built-in lockers. The mechanical properties of the laminate must meet the requirements for a Grade 3 laminate as specified in Table I of MIL–P–17549D(SH) (incorporated by reference, see § 160.135–5 of this subpart). Other grades will be given consideration on specific request to the Commandant.

(4) *Welding.* Welding must be performed by welders certified by the Commandant, a classification society recognized by the Commandant in accordance with 46 CFR 8.220, the U.S. Navy, or the national body where the lifeboat is constructed or the national body's designated recognized organization. Only electrodes intended for use with the material being welded

may be used. All welds must be checked using appropriate non-destructive tests.

(5) *Lifeboat buoyancy.* (i) The buoyancy material must be accepted by the Commandant as meeting the performance requirements of the IMO Revised recommendation on testing, part 1, 6.2.2 to 6.2.7, with a density of $32 \pm 8 \text{ kg/m}^3$ ($2 \pm 0.5 \text{ lb/ft}^3$). The buoyancy foam or lifeboat manufacturer must certify the results of the testing to IMO Revised recommendation on testing, part 1, 6.2.2 to 6.2.7 and submit those results to the Commandant. A list of accepted buoyancy foams may be obtained from the Commandant upon request and online at <http://cgmix.uscg.mil>.

(ii) All voids in the hull and canopy required to provide buoyancy for positive stability and self righting must be completely filled with Coast Guard accepted buoyancy material.

(6) *Engines.* (i) In order to be accepted by the Commandant, any compression ignition engine fitted to an approved lifeboat must meet the U.S.

Environmental Protection Agency emission requirements in 40 CFR part 89, part 94, or part 1042, as applicable, and have reports containing the same information as recommended by MSC Circ. 980 (incorporated by reference, see § 160.135–5 of this subpart) certified and witnessed by a U.S. Coast Guard inspector or an independent laboratory.

(ii) A hydraulic system, if used to start the engine, must be in accordance with 46 CFR part 58, subpart 58.30, with hose and fittings in accordance with 46 CFR part 56, subpart 56.60, except that—

(A) Push-on type fittings such as Aeroquip 1525–X, 25156–X, and FC332–X are not permitted; and

(B) The length of nonmetallic flexible hose is limited to 760 mm (30 in). Longer, nonmetallic flexible hoses may be allowed in emergency steering systems at the discretion of the Commandant.

(iii) If a hand pump is provided, or if the engine has a manual starting system, adequate space must be provided for the hand pump or hand start operation.

(7) *Fuel system.* (i) The fuel system must meet 46 CFR 56.50–75(b) and, except as specified in this paragraph, the fuel tank must meet 46 CFR 58.50–10.

(ii) Tanks constructed with—

(A) *Aluminum* must be at least 5 mm (0.20 in) thick of ASTM B 209 or 5086 alloy;

(B) *Nickel-copper* must be at least 0.9 mm (0.0375 in) thick of ASTM B 127 hot-rolled sheet or plate;

(C) *Steel or iron* must be at least 1.9 mm (0.0747 in) thick. Diesel tanks of

steel or iron must not have interior galvanizing;

(D) *Fiberglass reinforced plastic* must be at least 5 mm (0.187 in) thick; be sealed against porosity by at least one ply of chopped strand mat; be reinforced in the way of tank openings; be fitted with corrosion-resistant fittings; have each joint at the top of the tank; and have each joint bonded and through-bolted; or

(E) *Roto-molded plastic* must be at least 5 mm thick; must meet the requirements of 33 CFR 183.510 (a), (b), and (e) regardless of tank capacity; must be able to pass all static pressure tests as required in 33 CFR 183.510 at a minimum pressure of 5 psi; and be fitted with corrosion-resistant fittings.

(iii) Each fuel tank over 0.75 m (30 in) long must be baffled at intervals not exceeding 0.45 m (18 in).

(iv) A fuel level indicator must be provided for each fuel tank.

(v) Any fuel tank vent piping must be at least 6 mm (0.25 in) outside diameter tubing.

(vi) A shut-off valve must be provided at the fuel tank and must not be provided at the fuel pump. The valve must be clearly labeled. The position of the valve must be clearly indicated by a permanent marking inside the lifeboat. The marking must be an arrow pointing in the direction of the valve, and the words “Fuel Shut-Off Valve” must be in a color that contrasts with their background. The marking must be legible to a person within the vicinity of the engine.

(8) *Starting system batteries.* Any battery fitted in a totally enclosed lifeboat must be stored in a sealed compartment with exterior venting. If the lifeboat has more than one engine, then only one starting battery is required per engine.

(9) *Exhaust.* Engine exhaust must be routed away from bilge and potential oil drips. Any paint used on engines, manifolds, or exhaust must not give off fumes when heated. All exhaust lagging must be non-absorbent.

(10) *Propeller guard.* Each propeller on a lifeboat must be fitted with a propeller guard with a maximum opening of 76 mm (3 in) on all sides on which a person is likely to be exposed.

(11) *Control and steering station.* The operator's control and steering station must have complete lifeboat lowering and launching, hook release, engine throttle, steering controls, and if applicable, an air system and water spray system.

(i) The throttle must be a continuous manual control and must be able to be set and locked at any position.

(ii) The control and steering station must be designed and laid out in accordance with ASTM F 1166 sections 9 and 10, so that controls and displays are unambiguous, accessible, and easy to reach and use from the operator's normal seated position, while wearing an immersion suit or a lifejacket.

(iii) Each control, gauge, or display must be identified by a marking posted on, above, or adjacent to the respective item. Each control must operate in a logical manner and be marked with an arrow to show direction of movement of control which will cause an increased response. Each gauge must be marked with the normal operating range and indicate danger or abnormal conditions. Each marking must be permanent and weatherproof.

(iv) Gauges, and audio and visual alarms must be provided to monitor at least the following parameters—

(A) Coolant temperature, for a liquid cooled engine;

(B) Oil pressure, for an engine with an oil pump;

(C) Tachometer, for an engine not provided with over-speed protection; and

(D) State of charge, or rate of charge, for each rechargeable engine starting power source.

(12) *Hull drain plug.* The position of each drain plug must be clearly indicated by a permanent marking inside the lifeboat. The marking must be an arrow pointing in the direction of the plug, and the words “Drain Plug” must be 76 mm (3 in) high and have letters of a color that contrast with their background. The marking must be clearly visible to a person within the vicinity of the drain plug.

(13) *Remote steering.* The procedure to change over from remote to local steering must be simple, not require the use of tools, and be clearly posted. There must be sufficient clear space to install, operate, remove, and stow the removable tiller arm. The tiller arm and its connection to the rudder stock must be of sufficient strength so that there is no slippage or bending of the tiller arm. Rudder stops or other means must be provided to prevent the rudder from turning too far on either side.

(14) *Lifelines.* Buoyant lifelines must be of ultraviolet resistant material.

(15) *Rails provided as handholds.* Rails provided as handholds to cling when the lifeboat is overturned must extend for half the length of the lifeboat on both sides of the hull, and the clearance between the rail and hull must also be at least 38 mm (1.5 in). The rails must be attached to the hull below the chine or turn of the bilge, must be faired to prevent any fouling, and not

project beyond the widest part of the lifeboat.

(16) *Storage compartments and collection and storage of rainwater.* (i) Each storage compartment must be supported and secured against movement. It must have adequate hand access for removing and storing the required equipment, provisions, or water, and for cleaning the inside of the compartment.

(ii) The rain water collecting device may be incorporated into the design of the canopy or may be a separate unit to be mounted outside the lifeboat. The device must have a projected horizontal area of at least 1 m² (10.7 ft²) collection area and be designed to function unattended.

(iii) Provision must be made to continue to collect water in the storage compartment while drawing water to fill a cup. The compartment must have a means of drainage and adequate access to allow filling the graduated drinking cup required to be carried as part of the lifeboat equipment.

(17) *Release mechanism.* Each release mechanism must be identified at the application for approval of the prototype lifeboat and must be approved under 46 CFR part 160, subpart 160.133. The release lever or control in the lifeboat must be red in color, and the area immediately surrounding the control must be a sharply contrasting light color. An illustrated operating instruction plate or placard showing the correct off-load and emergency on-load release procedure and recovery procedure must be posted so that it is visible and legible from the helmsman's normal operating position. The plate or placard must be corrosion resistant and weatherproof and must be marked with the word "Danger".

(18) *Painter release.* Any painter release must be located such that the lifeboat operator can readily release the painter from the operator's control and steering station.

(19) *Canopy lamp.* Any exterior lifeboat position-indicating light must be approved by the Commandant under approval series 161.101.

(20) *Manually-controlled interior light.* Any interior light must be approved by the Commandant under approval series 161.101.

(21) *Lifeboat equipment.* Each lifeboat must be designed to accommodate and carry the equipment as specified in 46 CFR 199.175.

(22) *Oars.* Oars are not required on a lifeboat with more than one engine, provided one engine can be operated while the other is disabled.

(23) *Bilge pump.* Each lifeboat that is not automatically self-bailing, must be

fitted with a manual bilge pump approved under 46 CFR part 160, subpart 160.044. Each such lifeboat with a capacity of 100 persons or more must carry an additional approved manual bilge pump or an engine-powered bilge pump.

(24) *Exterior color.* The primary color of the exterior of the canopy and interior of partially enclosed lifeboats visible from the air must be a highly visible color equivalent to vivid reddish orange color number 12197 of FED-STD-595C (incorporated by reference, see § 160.135-5 of this subpart), or a durable fluorescent color of a similar hue.

(25) *Self-contained air supply system and fire protection system operating instructions.* Each compressed gas air cylinder must meet the requirements in 46 CFR 147.60. The cylinders must be accessible for removal and charging in place. Water-resistant instructions for starting the water spray and air supply, if fitted, must be provided and mounted in a conspicuous place near the system controls.

(26) *Navigating lights.* Each lifeboat must have navigation lights that are in compliance with the applicable sections of the International and Inland Navigation Rules and meet 46 CFR 111.75-17.

(27) *Retroreflective material.* The exterior of each lifeboat and its canopy must be marked with Type II retroreflective material approved under 46 CFR part 164, subpart 164.018. The arrangement of the retroreflective material must comply with IMO Res. A.658(16) (incorporated by reference, see § 160.135-5 of this subpart).

(28) *Permanently attached foldable canopy.* For a partially enclosed lifeboat, the foldable canopy cloth material must meet the specifications for Type II, Class 1 requirements of A-A-55308 (incorporated by reference, see § 160.135-5 of this subpart), or be accepted by the Commandant as equivalent or superior.

(29) *Labels and notices.* Any labels, caution and danger notices, and operating, maintenance, or general instructions, must be in accordance with ASTM F 1166, Section 15, in terms of format, content, lettering size and spacing, color, and posted location. They must be illustrated with symbols in accordance with IMO Res. A.760(18) (incorporated by reference, see § 160.135-5 of this subpart), as applicable. Information and instruction plates, not specifically mentioned in this section, must not be posted in the vicinity of the control and steering station without prior approval from the Commandant. Identification label

plates, if required, must be posted on or above the component or equipment to be identified.

(c) Determinations of equivalence of design, construction, and materials will be made by the Commandant only.

§ 160.135-9 Preapproval review.

(a) Except as provided in paragraph (c) of this section, the Commandant must conduct the preapproval review, required by this section, in accordance with 46 CFR 159.005-5.

(b) *Manufacturer requirements.* To seek Coast Guard approval of a lifeboat, the manufacturer must submit an application to the Commandant meeting the requirements of 46 CFR 159.005-5 for preapproval review. To meet the requirements of 46 CFR 159.005-5(a)(2), the manufacturer must submit in triplicate—

(1) A list of drawings, specifications, manuals, and any other documentation submitted, with each document identified by number, title, revision issue, and date;

(2) General arrangement and assembly drawings, including principal dimensions;

(3) Seating arrangement plan, including a dimensioned seat form to scale;

(4) A complete material list, with each material referenced to a U.S. national standard or, if a copy is provided in English, an equivalent international standard;

(5) Plans for carriage and, in detail, stowage of equipment;

(6) Hull, canopy, and critical parts lay-up schedule for a Fiber Reinforced Plastic (FRP) lifeboat;

(7) Hull and canopy construction drawings, including particulars of joints, welds, seams, and other fabricating details;

(8) Weights and thickness of each major FRP structural component, including the hull, canopy, and inner liners, before outfitting;

(9) Specification and identification of materials such as steel, aluminum, resin, foam, fiberglass, cloth, and plastic used in the lifeboat's manufacture;

(10) Fabrication details for each major structural component, including details of each welded joint;

(11) Lines plans;

(12) Propulsion system specifications and arrangement and installation drawings;

(13) Steering system drawings and specifications;

(14) Release mechanism installation drawings and the mechanism's Coast Guard approval number;

(15) Air and water spray systems drawings and specifications, if installed;

(16) Plans for critical subassemblies;
 (17) Hydraulic systems drawings and specifications, if installed;

(18) Electrical system schematics and specifications;

(19) Stability data, including righting arm curves in the light and loaded condition for both intact and flooded stability;

(20) Drawings of all signs and placards, showing actual inscription, format, color, size, and location on the lifeboat;

(21) Complete data pertinent to the installation and use of the proposed lifeboat, including the light load (condition A) and full load (condition B) weights;

(22) Specifications for the required launching ramp length and angle, and the height of free-fall lifeboat installation above the water;

(23) An operation, maintenance, and training manual as described in §§ 160.135–19 and 160.135–21 of this subpart;

(24) A description of the quality control procedures and record keeping that will apply to the production of the lifeboat, which must include but is not limited to—

(i) The system for checking material certifications received from suppliers;

(ii) The method for controlling the inventory of materials;

(iii) The method for checking quality of fabrication, seams, and joints, including welding inspection procedures; and

(iv) The inspection checklists used during various stages of fabrication to assure that the approved lifeboat complies with the approved plans and the requirements of this subpart;

(25) Full details of any other unique capability;

(26) Any other drawing(s) necessary to show that the lifeboat complies with the requirements of this subpart;

(27) The location or address of all manufacturing sites, including the name and address of any subcontractors, where the lifeboat will be constructed; and

(28) The name of the independent laboratory that will perform the duties prescribed in §§ 160.135–11 and 160.135–15 of this subpart.

(c) At the request of the manufacturer and discretion of the Commandant, an independent laboratory may conduct preapproval review required by this section so long as the preapproval review is conducted in accordance with the procedures agreed upon between the independent laboratory and Commandant under 46 CFR part 159, subpart 159.010.

(d) *Plan quality.* The plans and specifications submitted to the Commandant under this section must—

(1) Be provided in English, including all notes, inscriptions, and designations for configuration control;

(2) Address each of the applicable items in paragraph (b) of this section in sufficient detail to show that the lifeboat meets the construction requirements of this subpart;

(3) Accurately depict the proposed lifeboat;

(4) Be internally consistent;

(5) Be legible; and

(6) If reviewed by an independent laboratory under paragraph (c) of this section, include the independent laboratory's attestation that the plans meet the quality requirements of this section.

(e) *Alternatives.* Alternatives in materials, parts, or construction, and each item replaced by an alternative, must be clearly indicated as such in the plans and specifications submitted to the Commandant under this section.

(f) *Coast Guard review.* If the plans or specifications do not comply with the requirements of this section, Coast Guard review may be suspended, and the applicant notified accordingly.

§ 160.135–11 Fabrication of prototype lifeboats for approval.

(a) If the manufacturer is notified that the information submitted in accordance with § 160.135–9 of this subpart is satisfactory to the Commandant, the manufacturer may proceed with fabrication of the prototype lifeboat as set forth in this section.

(b) Unless the Commandant directs otherwise, an independent laboratory must perform or witness, as appropriate, inspections, tests, and oversight required by this section. Prototype inspections and tests of a lifeboat must be carried out in accordance with the procedures for independent laboratory inspection in 46 CFR part 159, subpart 159.007 and in this section, unless the Commandant authorizes alternative tests and inspections. The Commandant may prescribe additional prototype tests and inspections necessary to maintain quality control and to monitor compliance with the requirements of this subpart.

(c) Fabrication of a lifeboat must proceed in the following sequence:

(1) The manufacturer must arrange for an independent laboratory (or Coast Guard inspector if required under paragraph (b) of this section) to inspect, test, and oversee the lifeboat during its fabrication and prepare an inspection and test report meeting the requirements of 46 CFR 159.005–11.

(2) The independent laboratory must make such inspections as are necessary to determine that the prototype is constructed by the methods and with the materials specified in the plans reviewed under § 160.135–9 of this subpart. By conducting at least one inspection during its construction, the independent laboratory must determine the prototype lifeboat conforms with those plans by inspecting—

(i) *Fiber Reinforced Plastic (FRP) Construction.*

(A) FRP components of each prototype lifeboat outer hull and any FRP inner hull or liner components that are bonded or bolted to the outer hull must have a layup made of unpigmented clear resins so that details of construction are visible for inspection. Test panels representative of each prototype layup must be tested in accordance with MIL–P–17549D(SH) (incorporated by reference, see § 160.135–5 of this subpart). If an accepted MIL–R–21607E(SH) (incorporated by reference, see § 160.135–5 of this subpart) Grade B resin is used for the prototype lifeboat, additives for fire retardancy must not be used so that the laminate is translucent for inspection purposes. Any prototype test lifeboat with Grade B resins will not be marked in accordance with § 160.135–17 of this subpart for use as a production lifeboat regardless of the outcome of the performance tests. Whichever accepted resin the manufacturer decides to use for the prototype lifeboat, the same resin must be used in the production lifeboats.

(B) The hull, canopy, and major structural laminates of each prototype FRP lifeboat must be tested for resin content, ultimate flexural strength, and tensile strength. The test samples must be cut out from the prototype lifeboat, or be laid up at the same time, using the same procedures and by the same operators as the laminate used in the lifeboat. The number of samples used for each test, and the conditions and test methods used, must be as per the applicable test specified in this paragraph. The resin content must be determined as per ASTM D 2584 or ISO 1172 (incorporated by reference, see § 160.135–5 of this subpart). The flexural ultimate strength must be determined by ASTM D 790 method I (test condition “A”, flatwise, dry) or the corresponding ISO 14125 test method (incorporated by reference, see § 160.135–5 of this subpart). The tensile strength, lengthwise, must be determined as per ASTM D 638 or ISO 527 (incorporated by reference, see § 160.135–5 of this subpart).

(C) Each major FRP component, such as the hull, canopy, and inner liner(s), of each prototype FRP lifeboat must be examined and weighed after it is completed but before it is assembled. If the lifeboat is constructed by the spray lay-up technique, the hull and canopy thicknesses must be measured using ultrasonic or equivalent techniques;

(ii) *Steel construction.* Steel sheet and plate used for the hull, floors, and other structural components of a prototype steel lifeboat must meet the bend tests requirement specified under ASTM A 653 (incorporated by reference, see § 160.135–5 of this subpart) after galvanizing or other anti-corrosion treatment has been applied. This may be demonstrated through a supplier's certification papers or through witnessing actual tests;

(iii) *Coated cloth for partially enclosed lifeboats.* Cloth material used in the construction of each prototype lifeboat must be confirmed to have met the requirements specified under § 160.135–7(b)(28) of this subpart. This may be demonstrated through a supplier's certification papers or through witnessing actual tests;

(iv) *Welding.* Structural components of each prototype lifeboat joined by welding must be welded by the welding procedures and materials as per the plans reviewed under § 160.135–9 of this subpart and by welders appropriately qualified;

(v) *Buoyancy foam.* Each major subassembly of a prototype lifeboat, such as the hull with liner and canopy with liner, must be weighed after the buoyancy foam is installed and before it is further assembled;

(vi) Installation of the propulsion system;

(vii) Installation of the steering system; and

(viii) Installation of the water spray fire-protection and air support system(s), if fitted.

(3) The independent laboratory must submit the inspection report to the Commandant.

§ 160.135–13 Approval inspections and tests for prototype lifeboats.

(a) After the Commandant notifies the manufacturer that the prototype lifeboat is in compliance with the requirements of § 160.135–11 of this subpart, the manufacturer may proceed with the prototype approval inspections and tests required under this section. The prototype lifeboat, the construction of which was witnessed under § 160.135–11 of this subpart, must be used for the tests in this section.

(b) Except as provided in paragraph (f) of this section, the Coast Guard must

conduct the approval inspections and witness the approval tests required under this section.

(c) *Manufacturer requirements.* To proceed with approval inspections and tests required by this section, the manufacturer must—

(1) Notify the Commandant and cognizant Officer in Charge, Marine Inspection (OCMI) of where the approval inspections and tests required under this section will take place, and such notification must be in sufficient time to allow making travel arrangements;

(2) Arrange a testing schedule that allows for a Coast Guard inspector to travel to the site where the testing is to be performed;

(3) Admit the Coast Guard inspector to any place where work or testing is performed on lifeboats or their component parts and materials for the purpose of—

(i) Conducting inspections as necessary to determine that the prototype is constructed by the methods and with the materials specified in the plans reviewed under § 160.135–9 of this subpart and the inspection report under § 160.135–11 of this subpart;

(ii) Assuring that the quality assurance program of the manufacturer is satisfactory;

(iii) Witnessing tests; and

(iv) Taking samples of parts or materials for additional inspections or test; and

(4) Make available to the Coast Guard inspector the affidavits or invoices from the suppliers of all essential materials used in the production of lifeboats, together with records identifying the lot or serial numbers of the lifeboats in which such materials were used.

(d) *Tests.* (1) *Prototype lifeboat readiness.* All tests must be conducted on a completely outfitted lifeboat, including fixed equipment such as compass, searchlight, and navigating lights. Loose equipment may be substituted by weights.

(2) *Fiber Reinforced Plastic (FRP) prototype lifeboat lay-up.* For the prototype of each design of an FRP lifeboat, the lay-up must be made of unpigmented resins and clear gel coat.

(3) *Fuel tank.* Each non-portable fuel tank must be tested by a static head above the tank top of 3 m (10 ft) of water without showing any leaks or signs of permanent distortion.

(4) *IMO Revised recommendation on testing.* Each prototype lifeboat of each design must pass each of the tests for davit-launched or free-fall lifeboats, as applicable, described in the IMO Revised recommendation on testing, part 1, paragraphs 6.1 through 6.17

(incorporated by reference, see § 160.135–5 of this subpart). Tests must be conducted in accordance with these paragraphs of IMO Revised recommendation on testing, Part 1, with the following modifications:

(i) *Fire retardancy/release mechanism and engine tests* (Paragraphs 1/6.2, 6.9, 6.10, 6.14). The tests in the following IMO Revised recommendation on testing paragraphs may be accomplished independent of the lifeboat, and may be considered completed and need not be repeated if the tests have been previously shown to meet the necessary requirements—

(A) Paragraph 6.2;

(B) Paragraphs 6.9.3 through 6.9.6;

(C) Paragraph 6.10.2 through 6.10.6; and

(D) Paragraphs 6.14.6 through 6.14.8.

(ii) *Lifeboat overload test* (Paragraph 1/6.3). For a davit launched lifeboat, the overload test must be conducted with the lifeboat suspended from the lifting hooks. During this test, the canopy of a free-fall lifeboat must not deform so as to harm any potential occupants.

(iii) *Impact test* (Paragraph 1/6.4). The rigid vertical surface must not be displaced or deformed as a result of the test.

(iv) *Lifeboat seating space test* (Paragraph 1/6.7). The average mass of persons used to test the lifeboat seating space must be determined by weighing as a group or individually. Each person must wear an inherently buoyant SOLAS lifejacket with at least 150 N of buoyancy or a Coast Guard-approved lifejacket approved under approval series 160.155. For other than a totally enclosed lifeboat, the operator(s) must demonstrate that the lifeboat can be operated while wearing a Coast Guard approved, insulated-buoyant immersion suit approved under approval series 160.171. The Commandant will give consideration to requests to test at, and designate lifeboats for, a heavier occupant weight than that stated in the IMO LSA Code, Chapter IV (incorporated by reference, § 160.135–5 of this subpart).

(v) *Flooded stability test* (Paragraph 1/6.8). Any materials used to raise the test weights representing the lifeboat occupants above the seat pan must be at least as dense as fresh water.

(vi) *Lifeboat operational test, Operation of engine* (Paragraph 1/6.10.1). For the 4-hour lifeboat maneuvering period, the lifeboat must not (except for a short period to measure towing force and to demonstrate towing fixture durability) be secured, and must be run through its full range of speeds and full range of all controls throughout the period.

(vii) *Survival recovery test* (Paragraph 1/6.10.8). The recovery demonstration must show that no more than two crewmembers are required to recover a helpless person of ninety-fifth percentile by weight described in ASTM F 1166 (incorporated by reference, see § 160.135–5 of this subpart) while the crewmembers and helpless person are each wearing a lifejacket.

(viii) *Flooded capsizing test* (Paragraph 1/6.14.3-.5). For any lifeboat also approved as a rescue lifeboat, the lifeboat must return to an upright position and, without undue delay, the crew must be able to use the lifeboat again as a lifeboat.

(ix) *Fire test* (Paragraph 1/6.16.4). The locations where temperatures are measured along with the rationale for the proposed locations must be provided to the Commandant for approval prior to the testing.

(x) *Water spray tests* (Paragraph 1/6.16.9). The delivery rate of water, or the sprayed water film thickness over the lifeboat, must be at least equivalent to that used to achieve passing results for the fire test. Full coverage must be obtained without the need to rock the lifeboat or induce wetting by wiping or applying any agent.

(xi) *Measuring and evaluating acceleration forces* (Paragraph 1/6.17.5). For free-fall lifeboats, the selection, placement, and mounting of the accelerometers along with the rationale for the proposed selection, placement, and mounting must be provided to the Commandant for approval prior to the testing.

(xii) *Evaluation acceleration forces with the dynamic response model* (Paragraph 1/6.17.9). For free-fall lifeboats only, sections 6.17.9 thru 6.17.12 must be used along with the displacement limits for lifeboats in Table 2 under “Evaluation with the dynamic response model”.

(5) *Visual inspection*. Each lifeboat must be visually inspected to confirm—

- (i) Compliance with this subpart;
- (ii) Conformance with plans reviewed under § 160.135–9 of this subpart; and
- (iii) Ease of operation and maintenance.

(e) *Test waiver*. The Commandant may waive certain tests for a lifeboat identical in construction to smaller and larger lifeboats that have successfully completed the tests. Tests associated with lifeboat components that have already been approved by the Commandant are not required to be repeated.

(f) At the request of the manufacturer and discretion of the Commandant, an independent laboratory may perform approval inspections and witness

approval tests required by this section so long as the inspections and tests are performed and witnessed in accordance with the procedures agreed upon between the independent laboratory and Commandant under 46 CFR part 159, subpart 159.010.

(g) After completion of approval inspections and tests required by this section, the manufacturer must comply with the requirements of 46 CFR 159.005–9(a)(5) by preparing and submitting to the Commandant for review—

(1) The prototype approval test report containing the same information recommended by IMO MSC Circ. 980 (incorporated by reference, see § 160.135–5 of this subpart). The report must include a signed statement by the Coast Guard inspector (or independent laboratory as permitted by paragraph (f) of this section) who witnessed the testing, indicating that the report accurately describes the testing and its results; and

(2) The final plans of the lifeboat as built. The plans must include, in triplicate—

(i) The instructions for training and maintenance described in §§ 160.135–19 and 160.135–21 of this subpart; and

(ii) The final version of the plans required under § 160.135–9 of this subpart.

(h) The Commandant will review the report and plans submitted under paragraph (g) of this section, and if satisfactory to the Commandant, will approve the plans under 46 CFR 159.005–13.

§ 160.135–15 Production inspections, tests, quality control, and conformance of lifeboats.

(a) Unless the Commandant directs otherwise, an independent laboratory must perform or witness, as appropriate, inspections, tests, and oversight required by this section. Production inspections and tests of lifeboats must be carried out in accordance with the procedures for independent laboratory inspection in 46 CFR part 159, subpart 159.007 and in this section, unless the Commandant authorizes alternative tests and inspections. The Commandant may prescribe additional production tests and inspections necessary to maintain quality control and to monitor compliance with the requirements of this subpart.

(b) *Manufacturer’s responsibility*. The manufacturer must—

(1) Institute a quality control procedure to ensure that all production lifeboats are produced to the same standard, and in the same manner, as the prototype lifeboat approved by the

Commandant. The manufacturer’s quality control personnel must not work directly under the department or person responsible for either production or sales;

(2) Schedule and coordinate with the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section) to ensure that all tests are performed as described in this section;

(3) Submit to the Commandant, a yearly report that contains the following—

(i) Serial number and date of final assembly of each lifeboat constructed;

(ii) Name of the representative of the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section); and

(iii) Name of the vessel and company receiving the lifeboat, if known; and

(4) Ensure that the arrangement and materials entering into the construction of the lifeboat are in accordance with plans approved under § 160.135–13(h) of this subpart;

(5) Allow an independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section) access to any place where materials are stored for the lifeboat, work or testing is performed on lifeboats or their component parts and materials, or records are retained to meet the requirements of paragraph (c) of this section, for the purpose of—

(i) Assuring that the quality control program of the manufacturer is satisfactory;

(ii) Witnessing tests; or

(iii) Taking samples of parts or materials for additional inspections or tests; and

(6) Ensure that the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section) conducts the inspections and witnesses the tests required by paragraph (e)(2) of this section, and further conducts a visual inspection to verify that the lifeboats are being made in accordance with the plans approved under § 160.135–13(h) of this subpart and the requirements of this subpart.

(c) *Recordkeeping*. The manufacturer must maintain records in accordance with 46 CFR 159.007–13. The manufacturer must keep records of all items listed in this section for at least 5 years from the date of termination of approval of each lifeboat. The records must include—

(1) A copy of this subpart, other CFR sections referenced in this subpart, and each applicable document listed in § 160.135–5 of this subpart;

(2) A copy of approved plans, documentation, and certifications;

(3) A current certificate of approval for each approved lifeboat;

(4) Affidavits, certificates, or invoices from the suppliers identifying all essential materials used in the production of approved lifeboats, together with records identifying the serial numbers of the lifeboats in which such materials were used;

(5) Start and finish date and time of the lay-up of each major Fiber Reinforced Plastic (FRP) component such as the hull, canopy, and inner liner and the names of the operator(s);

(6) Start and finish date and time of pouring of foam-in-place rigid buoyancy foam, and name of operator(s);

(7) Records of all structural welding and name of operator(s);

(8) Records of welder certificates, training and qualifications;

(9) Date and results of calibration of test equipment and the name and address of the company or agency that performed the calibration;

(10) The serial number of each production lifeboat, along with records of its inspections and tests carried out under this section; and

(11) The original purchaser of each lifeboat and the vessel on which it was installed, if known.

(d) *Independent laboratory responsibility.* The independent laboratory must perform or witness, as appropriate, the inspections and tests under paragraph (e)(2) of this section for each Coast Guard-approved lifeboat to be installed on a U.S.-flagged vessel. If the manufacturer also produces lifeboats for approval by other maritime safety administrations, the inspections may be coordinated with inspection visits for those administrations.

(e) *Production inspections and tests.* Each approved lifeboat must be inspected and tested in accordance with each of the following procedures:

(1) *In-process inspections and tests.* Each production lifeboat must be examined during lay-up of the hull to verify that the lay-up conforms to the approved drawings. Each FRP major component, such as the hull, canopy, and inner liner, must be examined and weighed after it is completed but before assembled. If the lifeboat is constructed by the spray lay-up technique, the hull and canopy thicknesses must be measured using ultrasonic or equivalent techniques. Laboratory tests of laminates must be conducted at this time. Test samples must be cut out from the lifeboat itself or be laid up at the same time, using the same procedures and by the same operators as the laminate used in the lifeboat. The number of samples used for each test, and the conditions and test methods

used, must be as described in the applicable test specified in this paragraph.

(i) *Weight.* The weight of each FRP section, such as hull, canopy, and inner liner, must be within 10 percent of similar sections of the prototype lifeboat. These weights must be the bare laminate weights. Backing plates that are molded into the laminate may be included.

(ii) *Thickness.* The average thickness of each section of sprayed-up laminate must be within 20 percent of the corresponding sections of the prototype.

(iii) *Resin content.* Laminate samples from the hull, canopy, and inner liners must be tested in accordance with ASTM D 2584 or ISO 1172 (incorporated by reference, see § 160.135–5 of this subpart). The resin content must be within 8 percentage points of the prototype results. If the resin content does not comply, flexural ultimate strength and tensile tests in paragraph (e)(1)(iv) of this section must be conducted.

(iv) *Flexural ultimate strength and tensile tests.* Each laminate sample from each major component, such as hull and liner, that does not comply with the resin content requirement in paragraph (e)(1)(iii) of this section, and from each component of every fifth production lifeboat, must be subjected to the flexural ultimate strength and tensile strength tests as described in § 160.135–13(c)(2)(i)(B) of this subpart. The values must be at least 90 percent of the prototype results.

(v) *Buoyancy material.* If block foam buoyancy material is used, each piece must be weighed after it is cut and shaped to make sure that the correct amount of foam is installed. If foamed-in-place buoyancy material is used, a separate sample of the foam must be poured, and used to make a density determination after it has set. The density must be $32 \pm 8 \text{ kg/m}^3$ ($2 \pm 0.5 \text{ lb/ft}^3$).

(vi) *Steel sheet and plate.* Steel sheet and plate for the hull, floors, and other structural components must meet ASTM A 36 and ASTM A 653 as applicable (incorporated by reference, see § 160.135–5 of this subpart). Non-corrosive resistant steel must meet the coating mass and bend tests requirement specified under ASTM A 653. Compliance for this paragraph can be ascertained through supplier's certification papers or through conducting actual tests.

(vii) *Cloth.* The cloth material used for the construction of each partially enclosed lifeboat must meet the material specification of A–A–55308 (incorporated by reference, see

§ 160.135–5 of this subpart). This compliance can be ascertained through supplier's certification papers or through witnessing actual tests.

(viii) *Fuel tank.* Each fuel tank must be tested by a static head above the tank top of 3 m (10 ft) of water without showing any leaks or signs of permanent distortion.

(ix) *Welding.* It must be determined that structural components joined by welding was performed by welders who are appropriately qualified and that the welding procedure and materials are as per the plans approved under § 160.135–13(h) of this subpart.

(2) *Post assembly tests and inspections.* The finished lifeboat must be visually inspected inside and out. The manufacturer must develop and maintain a visual inspection checklist designed to ensure that all applicable requirements have been met and the lifeboat is equipped in accordance with approved plans. At a minimum, each lifeboat must be operated for 2 hours during which all lifeboat systems must be exercised.

§ 160.135–17 Marking and labeling.

(a) Each lifeboat must be marked with a plate or label permanently affixed to the hull in a conspicuous place readily accessible for inspection and sufficiently durable to withstand continuous exposure to environmental conditions at sea for the life of the lifeboat.

(b) The plate or label must be in English, but may also be in other languages.

(c) The plate or label must contain the—

(1) Name and address of the manufacturer;

(2) Manufacturer's model identification;

(3) Name of the independent laboratory that witnessed the prototype or production test and inspections;

(4) Serial number of the lifeboat;

(5) U.S. Coast Guard approval number;

(6) Month and year of manufacture;

(7) Material of hull construction;

(8) Number of persons for which the lifeboat is approved;

(9) Light load and full load (condition A and condition B weight); and

(10) Word "SOLAS."

§ 160.135–19 Operating instructions and information for the ship's training manual.

(a) Each lifeboat must have instructions and information for the ship's training manual that use the symbols from IMO Res. A.760(18) (incorporated by reference, see § 160.135–5 of this subpart) to describe

the location and operation of the lifeboat.

(b) The instructions and information required by paragraph (a) of this section may be combined with similar material for survival craft and rescue boats, and their launching systems.

(c) The lifeboat manufacturer must make the instructions and information required by paragraph (a) of this section available—

(1) In English to purchasers of a lifeboat approved by the Coast Guard; and

(2) In the form of an instruction placard providing simple procedures and illustrations for operation of the lifeboat. The placard must be not greater than 36 cm (14 in) by 51 cm (20 in), and must be made of durable material and suitable for display near installations of lifeboats on vessels.

§ 160.135–21 Operation and maintenance instructions.

(a) Each lifeboat must have operation and maintenance instructions that—

(1) Follow the general format and content specified in MSC.1 Circ. 1205 (incorporated by reference, see § 160.135–5 of this subpart); and

(2) Include a checklist for use in monthly, external visual inspections of the lifeboat.

(b) The lifeboat manufacturer must make the manual required by paragraph (a) of this section available in English to purchasers of a lifeboat approved by the Coast Guard.

(c) The operation and maintenance instructions required by paragraph (a) of this section may be combined with similar material for survival craft and rescue boats, and their launching systems.

§ 160.135–23 Procedure for approval of design, material, or construction change.

(a) Each change in design, material, or construction from the plans approved under 46 CFR 159.005–13 and § 160.135–13(h) of this subpart must be approved by the Commandant before being used in any production lifeboat. The manufacturer must submit any such change following the procedures in § 160.135–9 of this subpart, but documentation on items that are unchanged from the plans approved under 46 CFR 159.005–13 and § 160.135–13(h) of this subpart need not be resubmitted.

(b) Unless determined by the Commandant to be unnecessary, a prototype lifeboat with each change described in paragraph (a) of this section must be made and tested according to the procedures for new approvals in §§ 160.135–9 through 160.135–13 of this subpart.

(c) Determinations of equivalence of design, construction, and materials will be made by the Commandant only.

Subpart 160.151—Inflatable Liferrafts (SOLAS)

■ 29. Revise § 160.151–1 to read as follows:

§ 160.151–1 Scope.

This subpart prescribes standards, tests, and procedures for approval by the Coast Guard of inflatable liferafts. This subpart does not apply to any inflatable liferaft approved by the Commandant before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION OF INTERIM RULE], so long as the liferaft satisfies the annual servicing requirements set forth in 46 CFR 160.151–57.

■ 30. Amend § 160.151–3 as follows:

■ a. In the definition for “Commandant”, remove the text “(CG–521)” and add, in its place, the text “(CG–5214)”;

■ b. Add, in alphabetical order, the definition for “Officer in Charge, Marine Inspection (OCMI)”, to read as follows:

§ 160.151–3 Definitions.

* * * * *

Officer in Charge, Marine Inspection (OCMI) means an officer of the Coast Guard designated as such by the Commandant and who fulfills the duties described in 46 CFR 1.01–15(b). The “cognizant OCMI” is the OCMI who has immediate jurisdiction over a vessel or geographic area for the purpose of performing the duties previously described.

■ 31. Revise § 160.151–5 to read as follows:

§ 160.151–5 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 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 Commandant (CG–5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593–7126. You may also inspect this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030 or go to http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html. You may obtain copies of the material from the sources specified in the following paragraphs.

(b) American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428–2959.

(1) ASTM F 1014–02 (Reapproved 2007), Standard Specification for Flashlights on Vessels, (approved May 1, 2007), IBR approved for § 160.151–21 (“ASTM F 1014”).

(2) [Reserved].

(c) General Services Administration, Federal Acquisition Service, Office of the FAS Commissioner, 2200 Crystal Drive, 11th Floor, Arlington, VA 22202, 703–605–5400.

(1) Federal Standard 595C, Colors Used in Government Procurement, (January 16, 2008), IBR approved for §§ 160.151–15 and 160.151–17 (“FED–STD–595C”).

(2) [Reserved].

(d) International Maritime Organization (IMO), Publications Section, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) IMO Resolution A.657(16), Instructions for Action in Survival Craft, (adopted October 1989), IBR approved for § 160.151–21 (“IMO Res. A.657(16)”).

(2) IMO Resolution A.658(16), Use and Fitting of Retro-Reflective Materials on Life-Saving Appliances, (adopted October 19, 1989), IBR approved for § 160.151–15 (“IMO Res. A.658(16)”).

(3) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), pages 7–71 (“IMO LSA Code”), IBR approved for §§ 160.151–7, 160.151–15, 160.151–17, 160.151–21, 160.151–29, and 160.151–33.

(4) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), Revised recommendation on testing of life-saving appliances, pages 79–254 (“IMO Revised recommendation on testing”), IBR approved for §§ 160.151–21, 160.151–27, 160.151–29, 160.151–31, and 160.151–57.

(e) International Standards Organization (ISO): ISO Central Secretariat [ISO Copyright Office], Case Postale 56, CH 1211 Geneva 20, Switzerland.

(1) ISO 15738:2002(E), Ships and marine technology—Gas inflation systems for inflatable life-saving appliances, First Edition (February 1, 2002), IBR approved for § 160.151–15 (“ISO 15738”).

(2) ISO 17339:2002(E), Ships and marine technology—Sea anchors for survival craft and rescue boats, First Edition (November 15, 2002), IBR approved for § 160.151–21 (“ISO 17339”).

(3) ISO 18813:2006(E), Ships and marine technology—Survival equipment

for survival craft and rescue boats, First Edition (April 1, 2006), IBR approved for § 160.151–21 (“ISO 18813”).

(f) Military Specifications and Standards, Standardization Documents Order Desk, Building 4D, 700 Robins Avenue, Philadelphia PA 19111–5094, <https://assist.daps.dla.mil/quicksearch/>.

(1) MIL–C–17415F, Military Specification, Cloth, Coated, and Webbing, Inflatable Boat and Miscellaneous Use, (May 31, 1989), IBR approved for § 160.151–15 (“MIL–C–17415F”).

(2) [Reserved].

■ 32. Amend § 160.151–7 as follows:

■ a. In the introductory text, after the words “Chapter III of SOLAS”, add the words “and the IMO LSA Code (incorporated by reference, see § 160.151–5 of this subpart)”; and after the words “provisions of”, remove the word “SOLAS” and add, in its place, the words “the IMO LSA Code.”;

■ b. Revise paragraphs (a) and (b) to read as set forth below; and

■ c. Remove paragraphs (c), (d), and (e).

§ 160.151–7 Construction of inflatable liferafts.

* * * * *

(a) IMO LSA Code Chapter I/1.2, General requirements for life-saving appliances; and

(b) IMO LSA Code Chapter IV/4.2, Inflatable liferafts.

§ 160.151–11 [Amended]

■ 33. In § 160.151–11(b) introductory text, after the words “must submit an application”, add the words “to the Commandant”.

■ 34. Amend § 160.151–15 as follows:

■ a. In the introductory text, remove the words “indicated in § 160.151–7” and add, in their place, the words “and the IMO LSA Code (incorporated by reference, see § 160.151–5 of this subpart)”; and

■ b. In paragraph (a) introductory text, remove the words “Regulation III/30.2.1” and add, in their place, the words “IMO LSA Code, Chapter I/1.2.1”; after the words “meeting MIL–C–17415F”, add the words “(incorporated by reference, see § 160.151–5 of this subpart)”; after the words “equivalent or superior” remove the symbol “-” and add, in its place, the words “and be capable of withstanding the prototype tests specified in 160.151–27 of this subchapter.”;

■ c. Remove paragraphs (a)(1), (a)(2), (a)(3), and (a)(4);

■ d. In paragraph (b), remove the words “Regulation III/30.2.1” and add, in their place, the words “IMO LSA Code, Chapter I/1.2.2.1”;

■ e. In paragraph (c), remove the words “Regulation III/30.2.1” and add, in their

place, the words “IMO LSA Code Chapter I/1.2.2.1”;

■ f. In paragraph (d), remove the words “Regulation III/30.2.4” and add, in their place, the words “IMO LSA Code, Chapter I/1.2.2.4”;

■ g. In paragraph (e), remove the words “Regulation III/30.2.6” and add, in their place, the words “IMO LSA Code, Chapter I/1.2.2.6”; and remove the words “(color number 34 of NBS Special Publication 440)” and add, in their place, the words “(color number 12197 of FED–STD–595C (incorporated by reference, see § 160.151–5 of this subpart))”;

■ h. In paragraph (f), remove the words “Regulation III/30.2.7” and add, in their place, the words “IMO LSA Code, Chapter I/1.2.2.7”; and remove the words “IMO Resolution A.658(16)” and add, in their place, the words “IMO Res. A.658(16) (incorporated by reference, see § 160.151–5 of this subpart)”; and

■ i. In paragraph (g), remove the words “Regulation III/38.1.4” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.1.4”;

■ j. In paragraph (h), remove the words “Regulation III/38.2.2” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.2.2”;

■ k. In paragraph (i), remove the words “Regulation III/38.3.1” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.3.1”;

■ l. Remove and reserve paragraph (j);

■ m. In paragraph (k), remove the words “Regulation III/38.6.1” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.6.1”;

■ n. In paragraph (l) introductory text, remove the words “Regulation III/39.2.3” and add, in their place, the words “IMO LSA Code, Chapter IV/4.2.2.3”;

■ o. Redesignate paragraphs (m), (n), and (o) as paragraphs (n), (o), and (p), respectively.

■ p. Add paragraph (m) to read as set forth below;

■ q. In newly redesignated paragraph (n), remove the words “Regulation III/39.4.2” and add, in their place, the words “IMO LSA Code, Chapter IV/4.2.4.2”;

■ r. In newly redesignated paragraph (o), remove the words “Regulation III/39.6.2” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.3.3”; after the word “exterior”, add the words “and interior”; and remove the word “lamp” and add, in its place, the word “lamps”;

■ s. In newly redesignated paragraph (p) introductory text, remove the words “Regulation III/39.7.1” and add, in their

place, the words “IMO LSA Code, Chapter IV/4.2.6.1”.

§ 160.151–15 Design and performance of inflatable liferafts.

* * * * *

(m) *Inflation systems (IMO LSA Code, Chapter IV/4.2.2.3)*. Gas inflation systems, including gas-cylinder valves; gas-cylinder operating heads; high-pressure hose assemblies; and pressure relief, inflation/deflation, and non-return/transfer valves; must be certified as complying with the requirements of ISO 15738 (incorporated by reference, see § 160.151–5 of this subpart).

* * * * *

§ 160.151–17 [Amended]

■ 35. Amend 160.151–17 as follows:

■ a. In the introductory text, after the words “regulations of SOLAS”, add the words “and IMO LSA Code (incorporated by reference, see § 160.151–5 of this subpart)”; and

■ b. In the heading of paragraph (a), remove the words “Regulation III/39.5.1” and add, in their place, the words “the IMO LSA Code, Chapter IV/4.2.5”;

■ c. In paragraph (a)(2)(vii), remove the words “(color number 34 of NBS Special Publication 440)” and add, in their place, the words “(color number 12197 of FED–STD–595C (incorporated by reference, see § 160.151–5 of this subpart))”;

■ d. In paragraph (b), remove the words “Regulation III/39.4.1” and add, in their place, the words “IMO LSA Code, Chapter IV/4.2.4.1”; and

■ e. Remove paragraph (c).

■ 36. Amend § 160.151–21 as follows:

■ a. In the introductory text, after the words “regulations of SOLAS”, add the words “and the IMO LSA Code (incorporated by reference, see § 160.151–5 of this subpart)”; and

■ b. In paragraph (a), remove the first instance of the words “Regulation III/38.5.1.1” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.1”; and after the words “buoyant heaving line”, remove the words “described by Regulation III/38.5.1.1”;

■ c. In paragraph (b), remove the first instance of the words “Regulation III/38.5.1.2” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.2”; and after the words “folding knife”, remove the words “carried as permitted by Regulation III/38.5.1.2”;

■ d. In paragraph (c), remove the first instance of the words “Regulation III/38.5.1.3” and add, in their place, the words “(IMO LSA Code, Chapter IV/4.1.5.1.3 and ISO 18813 (incorporated by reference, see § 160.151–5 of this subpart))”; and after the words “Each

bailer”, remove the words “described by Regulation III/38.5.1.3”;

■ e. In paragraph (d), remove the first instance of the words “Regulation III/38.5.1.4” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.4”; and after the words “Each sponge”, remove the words “described by Regulation III/38.5.1.4”;

■ f. In paragraph (e), remove the first instance of the words “Regulation III/38.5.1.5” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.5 and ISO 17339 (incorporated by reference, see § 160.151–5 of this subpart)”; remove the two instances of the words “described by Regulation III/38.5.1.5”; and add a sentence to the end of the paragraph to read as set forth below;

■ g. In paragraph (f), remove the words “Regulation III/38.5.1.6” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.6 and ISO 18813”; and remove the words “IMO Resolution A.689(17)” and add, in their place, the words “IMO Revised recommendation on testing (incorporated by reference, see § 160.151–5 of this subpart).”;

■ h. In paragraph (g), remove the first instance of the words “Regulation III/38.5.1.7” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.7 and ISO 18813”; and after the words “a tin-opener”, remove the words “described by Regulation III/38.5.1.7”;

■ i. In paragraph (h), remove the first instance of the words “Regulation III/38.5.1.8” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.8”; and after the words “Each first-aid kit”, remove the words “described by Regulation III/38.5.1.8”;

■ j. In paragraph (i), remove the first instance of the words “Regulation III/38.5.1.9” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.9 and ISO 18813”; and after the words “The whistle”, remove the words “described by Regulation III/38.5.1.9”;

■ k. In paragraph (j), remove the first instance of the words “Regulation III/38.5.1.10” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.10”; and after the words “Each rocket parachute flare”, remove the words “described by Regulation III/38.5.1.10”;

■ l. In paragraph (k), remove the first instance of the words “Regulation III/38.5.1.11” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.11”; and after the words “Each hand flare”, remove the words “described by Regulation III/38.5.1.11”;

■ m. In paragraph (l), remove the first instance of the words “Regulation III/38.5.1.12” and add, in their place, the words “IMO LSA Code, Chapter IV/

4.1.5.1.12”; and after the words “Each buoyant smoke signal”, remove the words “described by Regulation III/38.5.1.12”;

■ n. In paragraph (m), remove the first instance of the words “Regulation III/38.5.1.13” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.13”; after the words “The waterproof electric torch”, remove the words “described by Regulation III/38.5.1.13”; and after the words “see § 160.151–5”, add the text “of this subpart”;

■ o. In paragraph (n), remove the words “Regulation III/38.5.1.14” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.14”;

■ p. In paragraph (o), remove the first instance of the words “Regulation III/38.5.1.15” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.15”; and after the words “Each signalling mirror” remove the words “described by Regulation III/38.5.1.15”;

■ q. In paragraph (p), remove the first instance of the words “Regulation III/38.5.1.16” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.16”; and after the words “transparent waterproof container”, remove the words “as described by Regulation III/38.5.1.16”;

■ r. In paragraph (q), remove the words “Regulation III/38.5.1.17” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.17”;

■ s. In paragraph (r), remove the words “Regulation III/38.5.1.18.” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.18”;

■ t. In paragraph (s), remove the first instance of the words “Regulation III/38.5.1.19” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.19”; remove the words “The fresh water required by Regulation III/38.5.1.19 must be “emergency drinking water”” and add, in their place, the words “Emergency drinking water must be”; after the words “The desalting apparatus”, remove the words “described in Regulation III/38.5.1.19”; and remove the last sentence of the paragraph;

■ u. In paragraph (t), remove the first instance of the words “Regulation III/38.5.1.20” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.20 and ISO 18813”; and after the words “The drinking cup”, remove the words “described in Regulation III/38.5.1.20”;

■ v. In paragraph (u), remove the first instance of the words “Regulation III/38.5.1.21” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.21 and ISO 18813”; and after the words “The anti-seasickness medicine”,

remove the words “required by Regulation III/38.5.1.21”;

■ w. In paragraph (v) introductory text, remove the first instance of the words “Regulation III/38.5.1.22” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.22 and ISO 18813”; and after the words “The instructions”, remove the words “required by Regulation III/38.5.1.22”;

■ x. In paragraph (v)(3), remove the words “IMO Resolution A.657(16)” and add, in their place, the words “IMO Res. A.657(16) (incorporated by reference, see § 160.151–5 of this subpart)”;

■ y. In paragraph (w) introductory text, remove the words “Regulation III/38.5.1.23” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.23”;

■ z. In paragraph (w)(3), remove the words “IMO Resolution A.657(16)” and add, in their place, the words “IMO Res. A.657(16)”;

■ aa. In paragraph (x), remove the first instance of the words “Regulation III/38.5.1.24” and add, in their place, the words “IMO LSA Code, Chapter IV/4.1.5.1.24”; and after the words “Each thermal protective aid”, remove the words “described by Regulation III/38.5.1.24”;

■ bb. In paragraph (y) introductory text, remove the first instance of the words “Regulation III/39.10.1.1” and add, in their place, the words “IMO LSA Code, Chapter IV/4.2.9.1.1 and ISO 18813”; and after the words “The repair outfit”, remove the words “required by Regulation III/39.10.1.1”;

■ cc. Revise paragraph (y)(2) to read as set out below;

■ dd. In paragraph (y)(3), remove the text “; and” and add, in its place, the text “.”;

■ ee. Remove paragraph (y)(4); and

■ ff. In paragraph (z), remove the first instance of the words “Regulation III/39.10.1.2” and add, in their place, the words “IMO LSA Code, Chapter IV/4.2.9.1.2”; and after the words “The pump or bellows”, remove the words “required by Regulation III/39.10.1.2”.

§ 160.151–21 Equipment required for SOLAS A and SOLAS B inflatable liferafts.

* * * * *

■ (e) * * * Sea anchors must be attached to the raft at a position so as to orient the primary entrance away from the seas as far as practicable while still allowing the sea anchor to be retrieved by a person inside the raft.

* * * * *

■ (y) * * *

■ (2) Five or more tube patches at least 50 mm (2 in) in diameter (the Commandant will consider self-

adhesive patches per ISO 18813 as an alternative); and

* * * * *

§ 160.151–27 [Amended]

- 37. Amend § 160.151–27 as follows:
 - a. Remove each instance of the words “IMO Resolution A.689(17)” and add, in their place, the words “IMO Revised recommendation on testing”;
 - b. In paragraph (a), remove the word “inclusive”; and
 - c. In paragraph (c)(5), remove the word “liters” and add, in its place, the text “L”.

§ 160.151–29 [Amended]

- 38. In § 160.151–29, in the introductory text, remove the words “Regulation III/39.5.1” and add, in their place, the words “IMO LSA Code, Chapter IV/4.3.5 (incorporated by reference, see § 160.151–5 of this subpart)”; and remove the words “IMO Resolution A.689(17)” and add, in their place, the words “IMO Revised recommendation on testing (incorporated by reference, see § 160.151–5 of this subpart)”.
- 39. Amend § 160.151–31 as follows:
 - a. Remove each instance of the words “IMO Resolution A.689(17)” and add, in their place, the words “IMO Revised recommendation on testing”;
 - b. In paragraph (a) introductory text, remove the word “part” and add, in its place, the text “46 CFR part”; and remove the words “of this chapter”;
 - c. In paragraph (c), remove the symbol “§” and add, in its place, the text “46 CFR”; and remove the words “of this chapter”;
 - d. In paragraph (d), after the words “through 5.1.6 inclusive,” add the words “(incorporated by reference, see § 160.151–5 of this subpart)”; and
 - e. Add paragraph (h) to read as follows:

§ 160.151–31 Production inspections and tests of inflatable liferafts.

* * * * *

- (h) The manufacturer must notify the cognizant Officer in Charge, Marine Inspection (OCMI) whenever final production inspections and tests are to be performed so that the OCMI may assign a marine inspector to the factory to witness the applicable tests and to ensure that the quality assurance program of the manufacturer is satisfactory.

§ 160.151–33 [Amended]

- 40. Amend 160.151–33 as follows:
 - a. In paragraph (b) introductory text, remove the words “Regulation III/39.7.3 of SOLAS” and add, in their place, the words “IMO LSA Code, Chapter IV/

- 4.2.6.3 (incorporated by reference, see § 160.151–5 of this subpart)”; and
- b. In paragraph (c) introductory text, remove the words “Regulation III/39.8 of SOLAS” and add, in their place, the words “IMO LSA Code, Chapter IV/4.2.7.1”.

§ 160.151–57 [Amended]

- 41. Amend 160.151–57 as follows:
 - a. In paragraph (b)(1), remove the words “IMO Resolution A.689(17) paragraph 2/5.1.5” and add, in their place, the words “IMO Revised recommendation on testing, paragraph 2/5.1.5 (incorporated by reference, see § 160.151–5 of this subpart)”;
 - b. In paragraph (b)(5)(i), remove the words “if its expiration date has passed” and add, in their place, the words “at the time of servicing if there is less than 6 months remaining before the expiration date”;
 - c. In paragraph (b)(11), remove the words “IMO Resolution A.658(16)” and add, in their place, the words “IMO Revised recommendation on testing”; add the words “46 CFR” in front of the words “part 164”; and remove the words “of this subchapter”;
 - d. In paragraph (e), remove the words “49 CFR 173.34” and add, in their place, the text “49 CFR 180.205”;
 - e. In paragraph (f), remove the words “IMO Resolution A.689(17)” and add, in their place, the words “IMO Revised recommendation on testing”; and
 - f. In paragraph (g), after the text “(b) through”, add the text “(f)”.

§ 160.151–59 [Amended]

- 42. In 160.151–59(a), remove the words “regulations III/18.2, 19.3, 51, and 52 of SOLAS” and add, in their place, the words “SOLAS Chapter III, Regulation 35 (III/35)”.

§ 160.151–61 [Amended]

- 43. In 160.151–61(a), remove the words “regulations III/19.3 and III/52 of SOLAS” and add, in their place, the words “SOLAS Chapter III, Regulation 36 (III/36)”.
- 44. Add subpart 160.156 to read as follows:

Subpart 160.156—Rescue Boats and Fast Rescue Boats (SOLAS)

Sec.

- 160.156–1 Scope.
- 160.156–3 Definitions.
- 160.156–5 Incorporation by reference.
- 160.156–7 Design, construction, and performance of rescue boats and fast rescue boats.
- 160.156–9 Preapproval review.
- 160.156–11 Fabrication of prototype rescue boats and fast rescue boats for approval.

- 160.156–13 Approval inspections and tests for prototype rescue boats and fast rescue boats.
- 160.156–15 Production inspections, tests, quality control, and conformance of rescue boats and fast rescue boats.
- 160.156–17 Marking and labeling.
- 160.156–19 Operating instructions and information for the ship’s training manual.
- 160.156–21 Operation and maintenance instructions.
- 160.156–23 Procedure for approval of design, material, or construction change.

Subpart 160.156—Rescue Boats and Fast Rescue Boats (SOLAS)

§ 160.156–1 Scope.

This subpart prescribes standards, tests, and procedures for seeking Coast Guard approval of a rescue boat, including a fast rescue boat, complying with SOLAS and the IMO LSA Code, for use on waters other than protected waters as defined in 46 CFR 175.400.

§ 160.156–3 Definitions.

In addition to the definitions in the IMO LSA Code (incorporated by reference, see § 160.156–5 of this subpart), in this subpart, the term:

Commandant means the Commandant (CG–5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593–7126.

Full load means the weight of the complete rescue boat, including all required equipment, provisions, fuel, and the number of persons for which it is approved. This is also known as the condition “B” weight.

Independent laboratory has the same meaning as 46 CFR 159.001–3. A list of accepted independent laboratories is available from the Commandant and online at <http://cgmix.uscg.mil>.

Light load means the weight of the complete rescue boat empty and does not include fuel, required equipment, or the equivalent weight of persons. This is also known as the condition “A” weight.

Officer in Charge, Marine Inspection (OCMI) means an officer of the Coast Guard designated as such by the Commandant and who fulfills the duties described in 46 CFR 1.01–15(b). The “cognizant OCMI” is the OCMI who has immediate jurisdiction over a vessel or geographic area for the purpose of performing the duties previously described.

SOLAS means the International Convention for the Safety of Life at Sea, 1974, as amended.

§ 160.156–5 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 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 Commandant (CG-5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593-7126. You may also inspect this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html. You may obtain copies of the material from the sources specified in the following paragraphs.

(b) American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

(1) ASTM A 36/A 36M-08, Standard Specification for Carbon Structural Steel, (approved May 15, 2008), IBR approved for §§ 160.156-7 and 160.156-15 ("ASTM A 36").

(2) ASTM A 276-08a, Standard Specification for Stainless Steel Bars and Shapes, (approved October 1, 2008), IBR approved for § 160.156-7 ("ASTM A 276").

(3) ASTM A 313/A 313M-08, (approved October 1, 2008), Standard Specification for Stainless Steel Spring Wire, IBR approved for § 160.156-7 ("ASTM A 313").

(4) ASTM A 314-08, Standard Specification for Stainless Steel Billets and Bars for Forging, (approved October 1, 2008), IBR approved for § 160.156-7 ("ASTM A 314").

(5) ASTM A 653/A 653M-08, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process, (approved July 15, 2008), IBR approved for §§ 160.156-7, 160.156-11 and 160.156-15 ("ASTM A 653").

(6) ASTM B 209-07, Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate, (approved August 1, 2007), IBR approved for § 160.156-7 ("ASTM B 209").

(7) ASTM D 638-08, Standard Test Method for Tensile Properties of Plastics, (approved April 1, 2008), IBR approved for § 160.156-11 ("ASTM D 638").

(8) ASTM D 790-07e1, Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials, (approved September 1, 2007), IBR

approved for § 160.156-11 ("ASTM D 790").

(9) ASTM D 2584-08, Standard Test Method of Ignition Loss for Cured Reinforced Resins, (approved May 1, 2008), IBR approved for §§ 160.156-11 and 160.156-15 ("ASTM D 2584").

(10) ASTM D 4029-09, Standard Specification for Finished Woven Glass Fabrics, (approved January 15, 2009), IBR approved for § 160.156-7 ("ASTM D 4029").

(11) ASTM F 1166-07, Standard Practice for Human Engineering Design for Marine Systems, Equipment, and Facilities, (approved January 1, 2007), IBR approved for §§ 160.156-7 and 160.156-13 ("ASTM F 1166").

(c) General Services Administration, Federal Acquisition Service, Office of the FAS Commissioner, 2200 Crystal Drive, 11th Floor, Arlington, VA 22202, 703-605-5400.

(1) Federal Standard 595C, Colors Used in Government Procurement, (January 16, 2008), IBR approved for § 160.156-7 ("FED-STD-595C").

(2) [Reserved].

(d) International Maritime Organization (IMO), Publications Section, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) IMO Resolution A.658(16), Use and Fitting of Retro-Reflective Materials on Life-Saving Appliances, (adopted October 19, 1989), IBR approved for § 160.156-7 ("IMO Res. A.658(16)").

(2) IMO Resolution A.760(18), Symbols Related to Life-Saving Appliances and Arrangements, (adopted November 4, 1993), IBR approved for §§ 160.156-7 and 160.156-19 ("IMO Res. A.760(18)").

(3) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), pages 7-71 ("IMO LSA Code"), IBR approved for §§ 160.156-3, 160.156-7 and 160.156-13.

(4) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), Revised recommendation on testing of life-saving appliances, pages 79-254 ("IMO Revised recommendation on testing"), IBR approved for §§ 160.156-7 and 160.156-13.

(5) MSC/Circular 980, Standardized Life-saving Appliance Evaluation and Test Report Forms, (February 13, 2001), IBR approved for §§ 160.156-7 and 160.156-13 ("IMO MSC Circ. 980").

(6) MSC.1/Circular 1205, Guidelines for Developing Operation and Maintenance Manuals for Lifeboat Systems, (May 26, 2006), IBR approved for § 160.156-21 ("IMO MSC.1 Circ. 1205").

(e) International Organization for Standardization (ISO): ISO Central

Secretariat [ISO Copyright Office], Case Postale 56, CH-1211 Geneve 20, Switzerland.

(1) ISO 527-1:1993(E), Plastics—Determination of tensile properties, Part 1: General Principles, First Edition (June 15, 1993), IBR approved for § 160.156-11 ("ISO 527").

(2) ISO 1172:1996(E), Textile-glass-reinforced plastics—Prepregs, moulding compounds and laminates—Determination of the textile-glass and mineral-filler content—Calcination methods, Second Edition (December 15, 1996), IBR approved for §§ 160.156-11 and 160.156-15 ("ISO 1172").

(3) ISO 14125:1998(E), Fibre-reinforced plastic composites—Determination of flexural properties, First Edition (March 1, 1998), IBR approved for § 160.156-11 ("ISO 14125").

(4) ISO 15372:2000(E), Ships and marine technology—Inflatable rescue boats—Coated fabrics for inflatable chambers, First Edition (December 1, 2002), IBR approved for §§ 160.156-7 and 160.156-15 ("ISO 15372").

(f) Military Specifications and Standards, Standardization Documents Order Desk, Building 4D, 700 Robins Avenue, Philadelphia PA 19111-5094, <https://assist.daps.dla.mil/quicksearch/>.

(1) MIL-C-19663D, Military Specification, Cloth, Woven Roving, For Plastic Laminate, (August 4, 1988), IBR approved for § 160.156-7 ("MIL-C-19663D").

(2) MIL-P-17549D(SH), Military Specification, Plastic Laminates, Fibrous Glass Reinforced, Marine Structural, (August 31, 1981), IBR approved for §§ 160.156-7 and 160.156-11 ("MIL-P-17549D(SH)").

(3) MIL-R-21607E(SH), Military Specification, Resins, Polyester, Low Pressure Laminating, Fire-Retardant, (May 25, 1990), IBR approved for § 160.156-11 ("MIL-R-21607E(SH)").

(g) Society of Automotive Engineers (SAE), 400 Commonwealth Drive, Warrendale, PA 15096.

(1) SAE J1527 (Revised JAN93), Marine Fuel Hoses, (February 5, 1993), IBR approved for § 160.156-7 ("SAE J1527").

(2) [Reserved].

(h) Underwriters Laboratories (UL), 2600 NW., Lake Rd, Camas, WA 98607-8542.

(1) UL 1102, UL Standard for Safety for Nonintegral Marine Fuel Tanks, Fifth Edition (February 4, 1999), IBR approved for § 160.156-7 ("UL 1102").

(2) UL 1185, Standard for Safety for Portable Marine Fuel Tanks, Fourth Edition (September 26, 1996), IBR approved for § 160.156-7 ("UL 1185").

§ 160.156–7 Design, construction and performance of rescue boats and fast rescue boats.

(a) To seek Coast Guard approval of a rescue boat, including a fast rescue boat, a manufacturer must comply with, and each rescue boat must meet, the requirements of the following:

(1) IMO LSA Code chapter V (incorporated by reference, see § 160.156–5 of this subpart);

(2) IMO Revised recommendation on testing, part 1/7 (incorporated by reference, see § 160.156–5 of this subpart) applicable to the type of rescue boat;

(3) 46 CFR part 159; and

(4) This subpart.

(b) Each rescue boat must meet the following requirements:

(1) *Design.* (i) Each rescue boat must be designed to be operable by persons wearing immersion suits.

(ii) Each rescue boat should be designed following standard human engineering practices described in ASTM F 1166 (incorporated by reference, see § 160.156–5 of this subpart). Design limits should be based on a range from the fifth percentile female to the ninety-fifth percentile male values for critical body dimensions and functional capabilities as described in ASTM F 1166. The dimensions for a person wearing an immersion suit correspond to the arctic-clothed dimensions of ASTM F 1166.

(2) *Visibility from operator's station.*

(i) The operator's station must be designed such that the operator, when seated at the control station, has visibility 360 degrees around the rescue boat, with any areas obstructed by the rescue boat structure or its fittings visible by moving the operator's head and torso.

(ii) The operator, while still being able to steer and control the speed of the rescue boat, must be able to see the water—

(A) Over a 90 degree arc within 3 m (10 ft) of each side of the rescue boat;

(B) Over a 30 degree arc within 1 m (3 ft, 3 in) of each side of the rescue boat; and

(C) Within 0.5 m (1 ft, 8 in) of the entrances designated for recovering persons from the water.

(iii) In order to see a person in the water during recovery or docking operations, a hatch must be provided in fully enclosed rescue boats so that the operator can stand with his or her head outside the rescue boat for increased visibility, provided the operator can still steer and control the speed of the rescue boat.

(3) *Construction.* Each major rigid structural component of each rescue

boat must be constructed of steel, aluminum, or Fiber Reinforced Plastic (FRP), or materials accepted by the Commandant as equivalent or superior.

(i) *General.* Metals in contact with each other must be either galvanically compatible or insulated with suitable non-porous materials. Provisions must also be made to prevent loosening or tightening resulting from differences of thermal expansion, freezing, buckling of parts, galvanic corrosion, or other incompatibilities.

(ii) *Steel.* Sheet steel and plate must be low carbon, commercial quality, either corrosion resistant or galvanized as per ASTM A 653, coating designation G90 (incorporated by reference, see § 160.156–5 of this subpart). Structural steel plates and shapes must be carbon steel as per ASTM A 36 (incorporated by reference, see § 160.156–5 of this subpart), or an equivalent or superior steel accepted by the Commandant. All steel products, except corrosion resistant steel, must be galvanized to provide high quality zinc coatings suitable for the intended service life in a marine environment. Corrosion resistant steel must be a type 302 stainless steel per ASTM A 276, ASTM A 313, or ASTM A 314 (incorporated by reference, see § 160.156–5 of this subpart) or another corrosion resistant stainless steel of equal or superior corrosion resistant characteristics.

(iii) *Aluminum.* Aluminum and aluminum alloys must conform to ASTM B 209 (incorporated by reference, see § 160.156–5 of this subpart) and be high purity for good marine corrosion resistance, free of iron, and containing not more than 0.6 percent copper.

(iv) *Fiber Reinforced Plastic (FRP).*

(A) *Resin.* Any resin used for the hull, canopy, hatches, rigid covers, and enclosures for the engine, transmission, and engine accessories, must be fire retardant and accepted by the Commandant in accordance with 46 CFR part 164, subpart 164.120.

(B) *Glass reinforcement.* Any glass reinforcement used must have good laminated wet strength retention and must meet the appropriate specification in this paragraph. Glass cloth must be a finished fabric woven from “E” electrical glass fiber yarns meeting ASTM D 4029–09 commercial style designation 1564 (incorporated by reference, see § 160.156–5 of this subpart). Woven roving must conform to MIL–C–19663D (incorporated by reference, see § 160.156–5 of this subpart). Other glass materials equivalent or superior in strength, design, wet out, and efficiency will be given consideration on specific request to the Commandant.

(C) *Laminate.* All exposed surfaces of any finished laminate must present a smooth finish, and there must be no protruding surface fibers, open voids, pits, cracks, bubbles, or blisters. The laminate must be essentially free from resin-starved or overimpregnated areas, and no foreign matter must remain in the finished laminate. The entire laminate must be fully cured and free of tackiness, and must show no tendency to delaminate, peel, or craze in any overlay. The laminate must not be released from the mold until a Barcol hardness reading of not less than 40–55 is obtained from at least 10 places on the non-gel coated surface, including all interior inner and outer hull surfaces and built-in lockers. The mechanical properties of the laminate must meet the requirements for a Grade 3 laminate as specified in Table I of MIL–P–17549D(SH) (incorporated by reference, see § 160.156–5 of this subpart). Other grades will be given consideration on specific request to the Commandant.

(4) *Welding.* Welding must be performed by welders certified by the Commandant, a classification society recognized by the Commandant in accordance with 46 CFR 8.220, the U.S. Navy, or the national body where the rescue boat is constructed or the national body's designated recognized organization. Only electrodes intended for use with the material being welded may be used. All welds must be checked using appropriate non-destructive tests.

(5) *Rescue boat buoyancy.* (i) The buoyancy material must be accepted by the Commandant as meeting the performance requirements of IMO Revised recommendation on testing, Part 1, 6.2.2 to 6.2.7, with a density of $32 \pm 8 \text{ kg/m}^3$ ($2 \pm 0.5 \text{ lb/ft}^3$). The buoyancy foam or rescue boat manufacturer must certify the results of the testing to IMO Revised recommendation on testing, part 1, 6.2.2 to 6.2.7 and submit those results to the Commandant. A list of accepted buoyancy foams may be obtained from the Commandant upon request.

(ii) All voids in the hull and canopy required to provide buoyancy for positive stability and self righting must be completely filled with Coast Guard-accepted buoyancy material.

(iii) Air in the inflated collar of a rigid-hull inflatable rescue boat will not be considered inherently buoyant material for the purposes of meeting the additional 280 N/person requirement of the LSA Code, chapter IV/4.4.4.

(6) *Coated fabric.* Any coated fabric used in the construction of inflatable chambers on a rescue boat must be shown to have been subjected to the criteria listed in IMO MSC Circ. 980 for

Inflation Chamber Characteristics Test (incorporated by reference, see § 160.156–5 of this subpart) by meeting the requirements of ISO 15372 (incorporated by reference, see § 160.156–5 of this subpart). The color of the finished fabric must be vivid reddish orange color number 12197 of FED–STD–595C (incorporated by reference, see § 160.156–5 of this subpart), or a durable fluorescent color of a similar hue. Each seam must be at least as strong as the weakest of the materials joined by the seam. Each seam must be covered with tape where necessary to prevent lifting of and damage to fabric edges.

(7) *Engines.* (i) In order to be accepted by the Commandant, any spark ignition engine fitted to an approved rescue boat must meet the U.S. Environmental Protection Agency emission requirements in 40 CFR part 91 or part 1045, as applicable, or for a compression ignition engine the requirements in 40 CFR part 89, part 94, or part 1042, as applicable, and have reports containing the same information as recommended by MSC Circ. 980 (incorporated by reference, see § 160.156–5 of this subpart) certified and witnessed by a U.S. Coast Guard inspector or an independent laboratory.

(ii) A hydraulic system, if used to start the engine, must be in accordance with 46 CFR part 58, subpart 58.30, with hose and fittings in accordance with 46 CFR part 56, subpart 56.60 except that—

(A) Push-on type fittings such as Aeroquip 1525–X, 25156–X, and FC332–X are not permitted; and

(B) The length of nonmetallic flexible hose is limited to 760 mm (30 in). Longer nonmetallic flexible hoses may be allowed in emergency steering systems at the discretion of the Commandant.

(iii) If a hand pump is provided, or if the engine has a manual starting system, adequate space must be provided for the hand pump or hand start operation.

(8) *Fuel system.* (i) The fuel system must meet 46 CFR 56.50–75(b) and, except as specified in this paragraph, the fuel tank must meet 46 CFR 58.50–10.

(ii) The fuel tank and fuel system must be in accordance with paragraph (b)(8)(ii)(A), (B), or (C) of this section, as follows:

(A) Permanently installed fuel systems must meet the requirements in 46 CFR 160.135–7.

(B) Portable fuel systems for outboard engines must meet UL 1185 (incorporated by reference, see § 160.156–5 of this subpart) or equivalent, except that hoses must be Coast Guard Type A per SAE J1527

(incorporated by reference, see § 160.156–5 of this subpart), and hose clamps, primers, filters, and strainers must be successfully tested in accordance with 33 CFR 183.590. Anti-siphon devices must be provided in the fuel system to prevent fuel spillage when the hose is disconnected. Arrangements must be provided to secure the fuel tank in its normal operating position on the rescue boat.

(C) Fuel systems for outboard engines using non-integral, permanently installed fuel tanks must meet the requirements of 33 CFR part 183, subpart J—Fuel Systems. UL 1102 (incorporated by reference, see § 160.156–5 of this subpart) meets these requirements for fuel tanks.

(9) *Starting system batteries.* Each battery fitted in a totally enclosed rescue boat must be stored in a sealed compartment with exterior venting. If the rescue boat has more than one engine, then only one starting battery is required per engine.

(10) *Exhaust.* Engine exhaust must be routed away from bilge and potential oil drips. Any paint used on engines, manifolds, or exhaust must not give off fumes when heated. All exhaust lagging must be non-absorbent.

(11) *Propeller guard.* Each propeller on a rescue boat must be fitted with a propeller guard with a maximum opening of 76 mm (3 in) on all sides on which a person is likely to be exposed.

(12) *Control and steering station.* Rescue boat starting, maneuvering, and steering controls must be provided at the control and steering station.

(i) The throttle must be a continuous manual control and must be able to be set and locked at any position.

(ii) The control and steering station must be designed and laid out in accordance with ASTM F 1166 sections 9 and 10, so that controls and displays are unambiguous, accessible, and easy to reach and use from the operator's normal seated position, while wearing an immersion suit or a lifejacket.

(iii) Each control, gauge, or display must be identified by a marking posted on, above, or adjacent to the respective item. Each control must operate in a logical manner and be marked with an arrow to show direction of movement of control which will cause an increased response. Each gauge must be marked with the normal operating range and indicate danger or abnormal conditions. Each marking must be permanent and weatherproof.

(iv) Gauges, and audio and visual alarms, must be provided to monitor at least the following parameters on inboard engines—

(A) Coolant temperature, for a liquid cooled engine;

(B) Oil pressure, for an engine with an oil pump;

(C) Tachometer, for an engine not provided with over-speed protection; and

(D) State of charge, or rate of charge, for each rechargeable engine starting power source.

(13) *Drain plug.* The position of each drain plug must be clearly indicated by a permanent marking inside the lifeboat. The marking must be an arrow pointing in the direction of the plug, and the words “Drain Plug” must be 76 mm (3 in) high and have letters of a color that contrast with their background. The marking must be clearly visible to a person within the vicinity of the drain plug.

(14) *Remote steering.* The procedure to change over from remote to local steering must be simple, not require the use of tools, and be clearly posted. There must be sufficient clear space to install, operate, remove, and stow the removable tiller arm. The tiller arm and its connection to the rudder stock must be of sufficient strength so that there is no slippage or bending of the tiller arm. Rudder stops or other means must be provided to prevent the rudder from turning too far on either side.

(15) *Lifelines.* Buoyant lifelines must be of ultraviolet resistant material.

(16) *Rails provided as handholds.* Rails provided as handholds on rigid and rigid-inflated rescue boats must extend for half the length of the rescue boat on both sides of the hull, and the clearance between the rail and hull must be at least 38 mm (1.5 in). The rails must be attached to the hull below the chine or turn of the bilge, must be faired to prevent any fouling, and not project beyond the widest part of the rescue boat.

(17) *Equipment list.* A weatherproof equipment list must be permanently mounted in a conspicuous and prominent location on a stowage locker or compartment, or on inside of canopy. The list must include a stowage plan oriented such that the stowage location of each item of loose equipment is readily apparent.

(18) *Release mechanism.* Each release mechanism fitted to a rescue boat, including a fast rescue boat, must be identified at the application for approval of the prototype rescue boat and must be approved under subparts 160.133 or 160.170 of this part. The release lever or control must be red in color, and the area immediately surrounding the control must be a sharply contrasting light color. An illustrated operating instruction plate or

placard, showing the correct off-load and emergency on-load release procedure and recovery procedure, must be posted so that it is visible and legible from the helmsman's normal operating position. The plate or placard must be corrosion resistant and weatherproof and must be marked with the word "Danger".

(19) *Painter/painter release*. Each rescue boat must be fitted with a device to secure the painter near the bow of the rescue boat. The device must be arranged such that the rescue boat does not exhibit unsafe or unstable characteristics when being towed by the ship with the ship underway at 5 knots. A quick-release device must be provided, which allows the painter to be released from inside the rescue boat while under tension. The quick-release handle must be clearly identified by a label.

(20) *Canopy lamp*. Any exterior rescue boat position-indicating light must be approved by the Commandant under approval series 161.101.

(21) *Manually controlled interior light*. Any interior light must be approved by the Commandant under approval series 161.101.

(22) *Manual bilge pump*. Each rescue boat that is not automatically self-bailing must be fitted with a manual bilge pump approved under 46 CFR part 160, subpart 160.044, or an engine-powered bilge pump.

(23) *Labels and notices*. Any labels, caution and danger notices, and any operating, maintenance, or general instructions, must be in accordance with ASTM F 1166, Section 15, in terms of format, content, lettering size and spacing, color, and posted location. They must be illustrated with symbols in accordance with IMO Res. A.760(18) (incorporated by reference, see § 160.156–5 of this subpart), as applicable. Information and instruction plates, not specifically mentioned in this section, must not be posted in the vicinity of the control and steering station without prior approval from the Commandant. Identification label plates, if required, must be posted on or above the component or equipment to be identified.

(24) *Stowage*. Each stowage compartment must be supported and secured against movement. It must have adequate hand access for removing and storing the required equipment, and for cleaning the inside of the compartment. There must be sufficient stowage volume to store the equipment required by 46 CFR 199.175.

(25) *Rescue boat equipment*. The rescue boat must be designed to

accommodate and carry the equipment required by 46 CFR 199.175.

(26) *Exterior color*. The primary color of the exterior of the hull, exterior of any canopy or bow cover, and the interior of a rescue boat not covered by a canopy or bow cover must be a highly visible color equivalent to vivid reddish orange color number 12197 of FED–STD–595C, or a durable fluorescent color of a similar hue.

(27) *Navigation light*. Each rescue boat must have navigation lights that are in compliance with the applicable sections of the International and Inland Navigation Rules and meet 46 CFR 111.75–17.

(28) *Retroreflective material*. The exterior of each rescue boat and canopy must be marked with Type II retroreflective material approved under 46 CFR part 164, subpart 164.018. The arrangement of the retroreflective material must comply with IMO Res. A.658(16) (incorporated by reference, see § 160.156–5 of this subpart).

(c) Determinations of equivalence of design, construction, and materials will be made by the Commandant only.

§ 160.156–9 Preapproval review.

(a) Except as provided in paragraph (c) of this section, the Commandant must conduct the preapproval review, required by this section, in accordance with 46 CFR 159.005–5.

(b) *Manufacturer requirements*. To seek Coast Guard approval of a rescue boat, the manufacturer must submit an application to the Commandant meeting the requirements of 46 CFR 159.005–5 for preapproval review. To meet the requirements of 46 CFR 159.005–5(a)(2), the manufacturer must submit in triplicate—

(1) A list of drawings, specifications, manuals, and any other documentation submitted, with each document identified by number, title, revision issue, and date;

(2) General arrangement and assembly drawings, including principal dimensions;

(3) Seating-arrangement plan, including a dimensioned seat form to scale;

(4) A complete material list, with each material referenced to a U.S. national standard or, if a copy is provided in English, an equivalent international standard;

(5) Plans for carriage and, in detail, stowage of equipment;

(6) Hull, canopy, and critical parts lay-up schedule for Fiber Reinforced Plastic (FRP) rescue boats, including fast rescue boats;

(7) Hull and canopy construction drawings, including particulars of

joints, welds, seams, and other fabricating details;

(8) Weights and thickness of each major FRP structural component, including the hull, canopy, and inner liners, before outfitting;

(9) Specification and identification of materials such as steel, aluminum, resin, foam, fiberglass, coated fabric, and plastic used in the rescue boat's manufacture;

(10) Fabrication details for each major structural component, including details of each welded joint;

(11) Lines plans;

(12) Propulsion system specifications and arrangement and installation drawings;

(13) Steering system drawings and specifications;

(14) Release mechanism installation drawings and the mechanism's Coast Guard approval number;

(15) Plans for critical subassemblies;

(16) Hydraulic systems drawings and specifications, if installed;

(17) Electrical system schematics and specifications;

(18) Stability data, including righting arm curves in the light load and load condition for both intact and flooded;

(19) Drawings of all signs and placards, showing actual inscription, format, color, size, and location on the rescue boat;

(20) Complete data pertinent to the installation and use of the proposed rescue boat, including—

(i) The light load (condition A) and full load (condition B) weights; and

(ii) Complete details of the lifting arrangement to include enough detail for operators of the rescue boat to select a suitable release mechanism approved under subpart 160.133 or 160.170 of this part;

(21) An operation, maintenance, and training manual as described in §§ 160.156–19 and 160.156–21 of this subpart;

(22) A description of the quality control procedures and record keeping that will apply to the production of the rescue boat, which must include but is not limited to—

(i) The system for checking material certifications received from suppliers;

(ii) The method for controlling the inventory of materials;

(iii) The method for checking quality of fabrication, seams, and joints, including welding inspection procedures; and

(iv) The inspection checklists used during various stages of fabrication to assure that the approved lifeboat complies with the approved plans and the requirements of this subpart;

(23) Full details of any other unique capability;

(24) Any other drawing(s) necessary to show that the rescue boat complies with the requirements of this subpart;

(25) The location or address of all manufacturing sites, including the name and address of any subcontractors, where the rescue boat will be constructed; and

(26) The name of the independent laboratory that will perform the duties prescribed in §§ 160.156–11 and 160.156–15 of this subpart.

(c) At the request of the manufacturer and discretion of the Commandant, an independent laboratory may conduct preapproval review required by this section so long as the preapproval review is conducted in accordance with the procedures agreed upon between the independent laboratory and Commandant under 46 CFR part 159, subpart 159.010.

(d) *Plan quality.* The plans and specifications submitted to the Commandant under this section must—

(1) Be provided in English, including all notes, inscriptions, and designations for configuration control;

(2) Address each of the applicable items in paragraph (b) of this section in sufficient detail to show that the lifeboat meets the construction requirements of this subpart;

(3) Accurately depict the proposed rescue boat;

(4) Be internally consistent;

(5) Be legible; and

(6) If reviewed by an independent laboratory under paragraph (c) of this section, include the independent laboratory's attestation that the plans meet the quality requirements of this section.

(e) *Alternatives.* Alternatives in materials, parts, or construction, and each item replaced by an alternative, must be clearly indicated as such in the plans and specifications submitted to the Commandant under this section.

(f) *Coast Guard review.* If the plans or specifications do not comply with the requirements of this section, Coast Guard review may be suspended, and the applicant notified accordingly.

§ 160.156–11 Fabrication of prototype rescue boats and fast rescue boats for approval.

(a) If the manufacturer is notified that the information submitted in accordance with § 160.156–9 of this subpart is satisfactory to the Commandant, the manufacturer may proceed with fabrication of the prototype rescue boat as set forth in this section.

(b) Unless the Commandant directs otherwise, an independent laboratory must perform or witness, as appropriate,

inspections, tests, and oversight required by this section. Prototype inspections and tests of a rescue boat must be carried out in accordance with the procedures for independent laboratory inspection in 46 CFR part 159, subpart 159.007 and in this section, unless the Commandant authorizes alternative tests and inspections. The Commandant may prescribe additional prototype tests and inspections necessary to maintain quality control and to monitor compliance with the requirements of this subpart.

(c) Fabrication of a rescue boat must proceed in the following sequence:

(1) The manufacturer must arrange for an independent laboratory (or Coast Guard inspector if required under paragraph (b) of this section) to inspect, test, and oversee the rescue boat during its fabrication and prepare an inspection and test report meeting the requirements of 46 CFR 159.005–11.

(2) The independent laboratory must make such inspections as are necessary to determine that the prototype is constructed by the methods and with the materials specified in the plans reviewed under § 160.156–9 of this subpart. By conducting at least one inspection during its construction, the independent laboratory must determine the prototype rescue boat conforms with those plans by inspecting—

(i) *Fiber Reinforced Plastic (FRP) Construction.*

(A) FRP components of each prototype rescue boat outer hull and any FRP inner hull or liner components that are bonded or bolted to the outer hull must have a layup made of unpigmented clear resins so that details of construction are visible for inspection. Test panels representative of each prototype layup must be tested in accordance with MIL–P–17549D(SH) (incorporated by reference, see § 160.156–5 of this subpart). If an accepted MIL–R–21607E(SH) Grade B resin is used for the prototype rescue boat, additives for fire retardancy must not be used so that the laminate is translucent for inspection purposes. A prototype test rescue boat with Grade B resins will not be marked in accordance with § 160.156–17 of this subpart for use as a production rescue boat regardless of the outcome of the performance tests. Whichever accepted resin the manufacturer decides to use for the prototype rescue boat, the same resin must be used in the production rescue boats.

(B) The hull, canopy, and major structural laminates of each prototype FRP rescue boat must be tested for resin content, ultimate flexural strength, and tensile strength. The test samples must

be cut out from the prototype rescue boat, or be laid up at the same time, using the same procedures and by the same operators as the laminate used in the rescue boat. The number of samples used for each test, and the conditions and test methods used, must be as per the applicable test specified in this paragraph. The resin content must be determined as per ASTM D 2584 or ISO 1172 (incorporated by reference, see § 160.156–5 of this subpart). The flexural ultimate strength must be determined by ASTM D 790 method I (test condition “A”, flatwise, dry) or the corresponding ISO 14125 test method (incorporated by reference, see § 160.156–5 of this subpart). The tensile strength, lengthwise, must be determined as per ASTM D 638 or ISO 527 (incorporated by reference, see § 160.156–5 of this subpart).

(C) Each major FRP component, such as the hull, canopy, and inner liner(s) of each prototype FRP rescue boat, must be examined and weighed after it is completed but before it is assembled. If the rescue boat is constructed by the spray lay-up technique, the hull and canopy thicknesses must be measured using ultrasonic or equivalent techniques;

(ii) *Steel construction.* Steel sheet and plate used for the hull, floors, and other structural components of a prototype steel rescue boat must meet the bend tests requirement specified under ASTM A 653 (incorporated by reference, see § 160.156–5 of this subpart) after galvanizing or other anti-corrosion treatment has been applied. This may be demonstrated through supplier's certification papers or through witnessing actual tests;

(iii) *Welding.* Structural components of each prototype rescue boat joined by welding must be joined by the welding procedures and materials per the plans reviewed under § 160.156–9 of this subpart and by welders appropriately qualified;

(iv) *Buoyancy material.* If block foam buoyancy material is used, each piece must be weighed after it is cut and shaped to make sure that the correct amount of foam is installed. If foamed-in-place buoyancy material is used, a separate sample of the foam must be poured, and used to make a density determination after it has set. The density must be $32 \pm 8 \text{ kg/m}^3$ ($2 \pm 0.5 \text{ lb/ft}^3$). Each major subassembly such as the hull-with-liner and canopy-with-liner must be weighed after the buoyancy foam is installed and before it is further assembled;

(v) *Coated fabric.* Coated fabric for inflatable collars used in the construction of each rescue boat must

meet the requirements specified under § 160.156–7(b)(3) of this subpart. This may be demonstrated through a supplier's certification papers or through witnessing actual tests;

(vi) Installation of the propulsion system; and

(vii) Installation of the steering system.

(3) The independent laboratory must submit the inspection report to the Commandant.

§ 160.156–13 Approval inspections and tests for prototype rescue boats and fast rescue boats.

(a) After the Commandant notifies the manufacturer that the prototype rescue boat is in compliance with the requirements of § 160.156–11 of this subpart, the manufacturer may proceed with the prototype approval inspections and tests required under this section. The prototype rescue boat, the construction of which was witnessed under § 160.135–11 of this part, must be used for the tests in this section.

(b) Except as provided in paragraph (f) of this section, the Coast Guard must conduct the approval inspections and witness the approval tests required under this section.

(c) *Manufacturer requirements.* To proceed with approval inspections and tests required by this section, the manufacturer must—

(1) Notify the Commandant and cognizant Officer in Charge, Marine Inspection (OCMI) of where the approval inspections and tests required under this section will take place, and such notification must be in sufficient time to allow making travel arrangements;

(2) Arrange a testing schedule that allows for a Coast Guard inspector to travel to the site where the testing is to be performed;

(3) Admit the Coast Guard inspector to any place where work or testing is performed on rescue boats or their component parts and materials for the purpose of—

(i) Conducting inspections as necessary to determine that the prototype is constructed by the methods and with the materials specified in the plans reviewed under § 160.156–9, and the inspection report under § 160.156–11, of this subpart;

(ii) Assuring that the quality assurance program of the manufacturer is satisfactory;

(iii) Witnessing tests; and

(iv) Taking samples of parts or materials for additional inspections or tests; and

(4) Make available to the Coast Guard inspector the affidavits or invoices from

the suppliers of all essential materials used in the production of rescue boats, together with records identifying the lot or serial numbers of the rescue boats in which such materials were used.

(d) *Tests.* (1) *Prototype rescue boat readiness.* All tests must be conducted on a completely outfitted rescue boat, including fixed equipment such as a compass, searchlight, and navigating lights. Loose equipment may be substituted by weights.

(2) *FRP prototype rescue boat lay-up.* For the prototype of each design of an FRP rescue boat, the lay-up must be made of unpigmented resins and clear gel coat.

(3) *Fuel tank.* Each non-portable fuel tank must be tested by a static head above the tank top of 3 m (10 ft) of water without showing any leaks or signs of permanent distortion.

(4) *IMO Revised recommendation on testing.* Each prototype rescue boat of each design must pass each of the tests for the applicable hull type described in the IMO Revised recommendation on testing, part 1, section 7 (incorporated by reference, see § 160.156–5 of this subpart). Tests must be conducted in accordance with these paragraphs of IMO Revised recommendation on testing, Part 1, with the following modifications:

(i) *Fire retardancy/release mechanism and engine tests* (Paragraphs 1/6.2, 6.9, 6.10, 6.14). The tests in the following IMO Revised recommendation on testing paragraphs may be accomplished independent of the rescue boat, and may be considered completed and need not be repeated if the tests have been previously shown to meet the following necessary requirements—

(A) Paragraphs 6.9.3 through 6.9.6;

(B) Paragraphs 6.10.2 through 6.10.6; and

(C) Paragraphs 6.14.6 through 6.14.8.

(ii) *Impact test* (Paragraph 1/6.4). The rigid vertical surface must not be displaced or deformed as a result of the test.

(iii) *Flooded stability test for rigid rescue boats only* (Paragraph 1/6.8). Any materials used to raise the test weights representing the rescue boat occupants above the seat pan must be at least as dense as fresh water.

(iv) *Rescue boat operational test, operation of engine* (Paragraph 1/7.1.5). For the 4-hour rescue boat maneuvering period, the rescue boat must not (except for a short period to measure towing force and to demonstrate towing fixture durability) be secured, and must be run through its full range of speeds and full range of all controls throughout the period.

(v) *Survival recovery test* (Paragraph 1/6.10.8). The recovery demonstration must show that no more than two crewmembers are required to recover a helpless person of ninety-fifth percentile by weight described in ASTM F 1166 (incorporated by reference, see § 160.156–5 of this subpart) while the crewmembers and helpless person are each wearing a lifejacket.

(vi) *Rescue boat seating space test* (Paragraph 1/7.1.3). The average mass of persons used to test the rescue boat seating space must be determined by weighing as a group or individually. Each person must wear an inherently buoyant SOLAS lifejacket with at least 150 N of buoyancy or a Coast Guard-approved lifejacket approved under approval series 160.155. The operator(s) must demonstrate that the rescue boat can be operated while wearing a Coast Guard approved, insulated-buoyant immersion suit approved under approval series 160.171. The Commandant will give consideration to requests to test at, and designate rescue boats for, a heavier occupant weight than that stated in the IMO LSA Code, chapter V (incorporated by reference, § 160.156–5 of this subpart).

(5) *Visual inspection.* Each rescue boat must be visually inspected to confirm—

(i) Compliance with this subpart;

(ii) Conformance with the plans reviewed under § 160.156–9 of this subpart; and

(iii) Ease of operation and maintenance.

(e) *Test waiver.* The Commandant may waive certain tests for a rescue boat identical in construction to smaller and larger rescue boats that have successfully completed the tests. Tests associated with rescue boat components that have already been approved by the Commandant are not required to be repeated.

(f) At the request of the manufacturer and discretion of the Commandant, an independent laboratory may perform approval inspections and witness approval tests required by this section so long as the inspections and tests are performed and witnessed in accordance with the procedures agreed upon between the independent laboratory and Commandant under 46 CFR part 159, subpart 159.010.

(g) After completion of approval inspections and tests required by this section, the manufacturer must comply with the requirements of 46 CFR 159.005–9(a)(5) by preparing and submitting to the Commandant for review—

(1) The prototype approval test report containing the same information

recommended by IMO MSC Circ. 980 (incorporated by reference, see § 160.156–5 of this subpart). The report must include a signed statement by the Coast Guard inspector (or independent laboratory as permitted by paragraph (f) of this section) who witnessed the testing, indicating that the report accurately describes the testing and its results; and

(2) The final plans of the rescue boat as built. The plans must include, in triplicate—

(i) The instructions for training and maintenance described in §§ 160.156–19 and 160.156–21 of this subpart; and

(ii) The final version of the plans required under § 160.156–9 of this subpart.

(h) The Commandant will review the report and plans submitted under paragraph (g) of this section, and, if satisfactory to the Commandant, will approve the plans under 46 CFR 159.005–13.

§ 160.156–15 Production inspections, tests, quality control, and conformance of rescue boats and fast rescue boats.

(a) Unless the Commandant directs otherwise, an independent laboratory must perform or witness, as appropriate, inspections, tests, and oversight required by this section. Production inspections and tests of rescue boats must be carried out in accordance with the procedures for independent laboratory inspection in 46 CFR part 159, subpart 159.007 and in this section, unless the Commandant authorizes alternative tests and inspections. The Commandant may prescribe additional production tests and inspections necessary to maintain quality control and to monitor compliance with the requirements of this subpart.

(b) *Manufacturer's responsibility.* The manufacturer must—

(1) Institute a quality control procedure to ensure that all production rescue boats are produced to the same standard, and in the same manner, as the prototype rescue boat approved by the Commandant. The manufacturer's quality control personnel must not work directly under the department or person responsible for either production or sales;

(2) Schedule and coordinate with the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section) to ensure that all tests are performed as described in this section;

(3) Submit to the Commandant, a yearly report that contains the following—

(i) Serial number and date of final assembly of each rescue boat constructed;

(ii) Name of the representative of the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section); and

(iii) Name of the vessel and company receiving the rescue boat, if known;

(4) Ensure that the arrangement and materials entering into the construction of the rescue boat are in accordance with plans approved under § 160.156–13(h) of this subpart;

(5) Allow an independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section) access to any place where materials are stored for the rescue boat, work or testing is performed on rescue boats or their component parts and materials, or records are retained to meet the requirements of paragraph (c) of this section, for the purpose of—

(i) Assuring that the quality control program of the manufacturer is satisfactory;

(ii) Witnessing tests; or

(iii) Taking samples of parts or materials for additional inspections or tests; and

(6) Ensure that the independent laboratory conducts the inspections and witnesses the tests required by paragraph (e) of this section, and further conducts a visual inspection to verify that the rescue boats are being made in accordance with the plans approved under § 160.156–13(h) of this subpart and the requirements of this subpart.

(c) *Recordkeeping.* The manufacturer must maintain records in accordance with 46 CFR 159.007–13. The manufacturer must keep records of all items listed in this section for at least 5 years from the date of termination of approval of each rescue boat. The records must include—

(1) A copy of this subpart, other CFR sections referenced in this subpart, and each applicable document listed in § 160.156–5 of this subpart;

(2) A copy of approved plans, documentation, and certifications;

(3) A current certificate of approval for each approved rescue boat;

(4) Affidavits, certificates, or invoices from the suppliers identifying all essential materials used in the production of approved rescue boats, together with records identifying the serial numbers of the rescue boats in which such materials were used;

(5) Start and finish date and time of the lay-up of each major Fiber Reinforced Plastic (FRP) component such as the hull, canopy, and inner liner and the names of the operator(s);

(6) Start and finish date and time of pouring of foam-in-place rigid buoyancy foam, and name of operator(s);

(7) Records of all structural welding and name of operator(s);

(8) Records of welder certificates, training and qualifications;

(9) Date and results of calibration of test equipment and the name and address of the company or agency that performed the calibration;

(10) The serial number of each production rescue boat, along with records of its inspections and test carried out under this section; and

(11) The original purchaser of each rescue boat and the vessel on which it was installed, if known.

(d) *Independent laboratory responsibility.* The independent laboratory must perform or witness, as appropriate, the inspections and tests under paragraph (e) in this section for each Coast Guard-approved rescue boat to be installed on a U.S.-flagged vessel. If the manufacturer also produces rescue boats for approval by other maritime safety administrations, the inspections may be coordinated with inspection visits for those administrations.

(e) *Production inspections and tests.* Each approved rescue boat must be inspected and tested in accordance with each of the following procedures:

(1) *In-process inspections and tests.* In accordance with the interval prescribed in paragraph (d)(1) of this section, each production rescue boat must be examined during lay-up of the hull to verify that the lay-up conforms to the approved drawings. Each FRP major component, such as the hull, canopy, and inner liner, must be examined and weighed after it is completed but before assembled. If the rescue boat is constructed by the spray lay-up technique, the hull and canopy thicknesses must be measured using ultrasonic or equivalent techniques. Laboratory tests of laminates must be conducted at this time. Test samples must be cut out from the rescue boat itself or be laid up at the same time, using the same procedures, and by the same operators as the laminate used in the rescue boat. The number of samples used for each test, and the conditions and test methods used, must be as described in the applicable test specified in this paragraph.

(i) *Weight.* The weight of each FRP section, such as hull, canopy, and inner liner, must be within 10 percent of similar sections of the prototype rescue boat. These weights must be the bare laminate weights. Backing plates that are molded into the laminate may be included.

(ii) *Thickness*. The average thickness of each section of sprayed-up laminate must be within 20 percent of the corresponding sections of the prototype.

(iii) *Resin content*. Laminate samples from the hull, canopy, and inner liners must be tested in accordance with ASTM D 2584 or ISO 1172 (incorporated by reference, see § 160.156–5 of this subpart). The resin content must be within 8 percentage points of the prototype results. If the resin content does not comply, flexural ultimate strength and tensile tests in paragraph (e)(1)(iv) of this section must be conducted.

(iv) *Flexural ultimate strength and tensile tests*. Each laminate sample from each major component, such as hull and liner, that does not comply with the resin content requirement in paragraph (e)(1)(iii) of this section, and from each component of every fifth production rescue boat, must be subjected to the flexural ultimate strength and tensile strength tests as described in § 160.156–11(c)(2)(i)(B) of this subpart. The values must be at least 90 percent of the prototype results.

(v) *Buoyancy material*. If block foam buoyancy material is used, each piece must be weighed after it is cut and shaped to make sure that the correct amount of foam is installed. If foamed-in-place buoyancy material is used, a separate sample of the foam must be poured, and used to make a density determination after it has set. The density must be $32 \pm 8 \text{ kg/m}^3$ ($2 \pm 0.5 \text{ lb/ft}^3$).

(vi) *Steel sheet and plate*. Steel sheet and plate for the hull, floors, and other structural components must meet ASTM A 36 and ASTM A 653 as applicable (incorporated by reference, see § 160.156–5 of this subpart). Non-corrosive resistant steel must meet the coating mass and bend tests requirement specified under ASTM A 653. Compliance for this paragraph can be ascertained through supplier's certification papers or through conducting actual tests.

(vii) *Fabric*. The coated fabric for inflatable collars, when used, for the construction of each rescue boat must meet ISO 15372 (incorporated by reference, see § 160.156–5 of this subpart). This compliance can be ascertained through a supplier's certification papers or through witnessing actual tests.

(viii) *Fuel tank*. Each fuel tank must be tested by a static head above the tank top of 3 m (10 ft) of water without showing any leaks or signs of permanent distortion.

(ix) *Welding*. It must be determined that structural components joined by

welding was performed by welders who are appropriately qualified and that the welding procedure and materials are as per the plans approved under § 160.156–13(h) of this subpart.

(2) *Post assembly tests and inspections*. The finished rescue boat must be visually inspected inside and out. The manufacturer must develop and maintain a visual inspection checklist designed to ensure that all applicable requirements have been met and the rescue boat is equipped in accordance with approved plans. At a minimum, each rescue boat must be operated for 2 hours, during which all rescue boat systems must be exercised.

§ 160.156–17 Marking and labeling.

(a) Each rescue boat must be marked with a plate or label permanently affixed to the hull in a conspicuous place readily accessible for inspection and sufficiently durable to withstand continuous exposure to environmental conditions at sea for the life of the rescue boat.

(b) The plate or label must be in English, but may also be in other languages.

(c) The plate or label must contain the—

- (1) Name and address of the manufacturer;
- (2) Manufacturer's model identification;
- (3) Name of the independent laboratory that witnessed the prototype or production tests;
- (4) Serial number of the rescue boat;
- (5) U.S. Coast Guard approval number;
- (6) Month and year of manufacture;
- (7) Material of hull construction;
- (8) Number of persons for which the rescue boat is approved;
- (9) Light load and full load (condition A and condition B weight); and
- (10) Word "SOLAS."

§ 160.156–19 Operating instructions and information for the ship's training manual.

(a) Each rescue boat must have instructions and information for the ship's training manual, that use the symbols from IMO Res. A.760(18) (incorporated by reference, see § 160.156–5 of this subpart) to describe the location and operation of the rescue boat.

(b) The instructions and information required by paragraph (a) of this section may be combined with similar material for survival craft and rescue boats, and their launching systems.

(c) The rescue boat manufacturer must make the instructions and information required by paragraph (a) of this section available—

(1) In English to purchasers of a rescue boat approved by the Coast Guard; and

(2) In the form of an instruction placard providing simple procedures and illustrations for operation of the rescue boat. The placard must be not greater than 36 cm (14 in) by 51 cm (20 in), and must be made of durable material and suitable for display near installations of rescue boats on vessels.

§ 160.156–21 Operation and maintenance instructions.

(a) In order to comply with SOLAS, each rescue boat must have operation and maintenance instructions that—

(1) Follows the general format and content specified in MSC.1 Circ. 1205 (incorporated by reference, see § 160.156–5 of this subpart); and

(2) Includes a checklist for use in monthly, external inspections of the rescue boat.

(b) The rescue boat manufacturer must make the manual required by paragraph (a) of this section available in English to purchasers of a rescue boat approved by the Coast Guard.

(c) The operation and maintenance instructions required by paragraph (a) of this section may be combined with similar material for survival craft and rescue boats, and their launching systems.

§ 160.156–23 Procedure for approval of design, material, or construction change.

(a) Each change in design, material, or construction from the plans approved under 46 CFR 159.005–13 and § 160.156–13(h) of this subpart must be approved by the Commandant before being used in any production rescue boat. The manufacturer must submit any such change following the procedures set forth in § 160.156–9 of this subpart, but documentation on items that are unchanged from the plans approved under 46 CFR 159.005–13 and § 160.156–13(h) of this subpart need not be resubmitted.

(b) Unless determined by the Commandant to be unnecessary, a prototype rescue boat with each change described in paragraph (a) of this section must be made and tested according to the procedures for new approvals in §§ 160.156–9 through 160.156–13 of this subpart.

(c) Determinations of equivalence of design, construction, and materials will be made by the Commandant only.

■ 45. Add subpart 160.170 to read as follows:

Subpart 160.170—Davit-Launched Liferaft Automatic Release Hooks (SOLAS)

Sec.

- 160.170-1 Scope.
 - 160.170-3 Definitions.
 - 160.170-5 Incorporation by reference.
 - 160.170-7 Design, construction, and performance of automatic release mechanisms.
 - 160.170-9 Preapproval review.
 - 160.170-11 [Reserved]
 - 160.170-13 Approval inspections and tests for prototype automatic release mechanisms.
 - 160.170-15 Production inspections, tests, quality control, and conformance of release mechanisms.
 - 160.170-17 Marking and labeling.
 - 160.170-19 Operating instructions and information for the ship's training manual.
 - 160.170-21 Operation and maintenance instructions.
 - 160.170-23 Procedure for approval of design, material, or change.
- Subpart 160.170—Davit-Launched Liferaft Automatic Release Hooks (SOLAS)

§ 160.170-1 Scope.

This subpart prescribes standards, tests, and procedures for seeking Coast Guard approval of an automatic release mechanism complying with SOLAS and the IMO LSA Code, for use with davit-launched liferafts approved under subparts 160.051 or 160.151 of this part, and single-fall rescue boats approved under subpart 160.156 of this part.

§ 160.170-3 Definitions.

In addition to the definitions in the IMO LSA Code (incorporated by reference, see § 160.170-5 of this subpart), in this subpart, the term:

Commandant means the Commandant (CG-5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593-7126.

Full load means the weight of the complete rescue boat including all required equipment, provisions, fuel (if applicable), and the number of persons for which it is approved. This is also known as the “condition B” weight.

Independent laboratory has the same meaning as 46 CFR 159.001-3. A list of accepted independent laboratories is available from the Commandant and online at <http://cgmix.uscg.mil>.

Light load means the weight of the complete rescue boat empty and does not include fuel, required equipment, or the equivalent weight of persons. This is also known as the “condition A” weight.

Officer in Charge, Marine Inspection (OCMI) means an officer of the Coast Guard designated as such by the Commandant and who fulfills the duties described in 46 CFR 1.01-15(b). The

“cognizant OCMI” is the OCMI who has immediate jurisdiction over a vessel or geographic area for the purpose of performing the duties previously described.

SOLAS means the International Convention for the Safety of Life at Sea, 1974, as amended.

§ 160.170-5 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 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 Commandant (CG-5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593-7126. You may also inspect this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html. You may obtain copies of the material from the sources specified in the following paragraphs.

(b) American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

(1) ASTM A 36/A 36M-08, Standard Specification for Carbon Structural Steel, (approved May 15, 2008), IBR approved for § 160.170-7 (“ASTM A 36”).

(2) ASTM A 276-08a, Standard Specification for Stainless Steel Bars and Shapes, (approved October 1, 2008), IBR approved for § 160.170-7 (“ASTM A 276”).

(3) ASTM A 313/A 313M-08, Standard Specification for Stainless Steel Spring Wire, (approved October 1, 2008), IBR approved for § 160.170-7 (“ASTM A 313”).

(4) ASTM A 314-08, Standard Specification for Stainless Steel Billets and Bars for Forging, (approved October 1, 2008), IBR approved for § 160.170-7 (“ASTM A 314”).

(5) ASTM A 653/A 653M-08, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process, (approved July 15, 2008), IBR approved for §§ 160.170-7, 160.170-13, and 160.170-15 (“ASTM A 653”).

(6) ASTM F 1166-07, Standard Practice for Human Engineering Design for Marine Systems, Equipment, and Facilities, (approved January 1, 2007),

IBR approved for § 160.170-7 (“ASTM F 1166”).

(c) International Maritime Organization (IMO), Publications Section, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) IMO Resolution A.760(18), Symbols Related to Life-Saving Appliances and Arrangements, (adopted November 4, 1993), IBR approved for § 160.170-19 (“IMO Res. A.760(18)”).

(2) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), pages 7-71 (“IMO LSA Code”), IBR approved for §§ 160.170-3 and 160.170-7.

(3) Life-Saving Appliances, including LSA Code, 2010 Edition, (2010), Revised recommendation on testing of live-saving appliances, pages 79-254 (“IMO Revised recommendation on testing”), IBR approved for §§ 160.170-7, 160.170-13, 160.170-15, and 160.170-17.

(4) MSC/Circular 980, Standardized Life-saving Appliance Evaluation and Test Report Forms, (February 13, 2001), IBR approved for § 160.170-13 (“IMO MSC Circ. 980”).

(5) MSC.1/Circular 1205, Guidelines for Developing Operation and Maintenance Manuals for Lifeboat Systems, (May 26, 2006), IBR approved for § 160.170-21 (“IMO MSC.1 Circ. 1205”).

§ 160.170-7 Design, construction, and performance of automatic release mechanisms.

(a) To seek Coast Guard approval of a release mechanism, a manufacturer must comply with, and each release mechanism must meet, the requirements of the following—

(1) IMO LSA Code, Chapter VI/6.1.5 (incorporated by reference, see § 160.170-5 of this subpart);

(2) IMO Revised recommendation on testing Part 1/8.2 (incorporated by reference, see § 160.170-5 of this subpart).

(3) 46 CFR part 159; and

(4) This subpart.

(b) Each release mechanism must meet the following requirements—

(1) *Design*. All functions of the release mechanism, including removal of interlocks, operation of the release handle, resetting the hooks, and reattaching the falls to the hooks, must be designed to be operable by persons wearing immersion suits;

(2) Each release mechanism should be designed following standard human engineering practices described in ASTM F 1166 (incorporated by reference, see § 160.170-5 of this subpart). Design limits should be based on a range from the fifth percentile

female to the ninety-fifth percentile male values for critical body dimensions and functional capabilities as described in ASTM F 1166. The dimensions for a person wearing an immersion suit correspond to the arctic-clothed dimensions of ASTM F 1166;

(3) *Steel*. Each major structural component of each release mechanism must be constructed of steel. Other materials may be used if accepted by the Commandant as equivalent or superior. Sheet steel and plate must be low-carbon, commercial quality, either corrosion resistant or galvanized as per ASTM A 653 (incorporated by reference, see § 160.170–5 of this subpart), coating designation G115. Structural steel plates and shapes must be carbon steel as per ASTM A 36 (incorporated by reference, see § 160.170–5 of this subpart). All steel products, except corrosion resistant steel, must be galvanized to provide high-quality zinc coatings suitable for the intended service life in a marine environment. Each fabricated part must be galvanized after fabrication. Corrosion resistant steel must be a type 302 stainless steel per ASTM A 276, ASTM A 313 or ASTM A 314 (incorporated by reference, see § 160.170–5 of this subpart) or another corrosion resistant stainless steel of equal or superior corrosion resistant characteristics;

(4) *Welding*. Welding must be performed by welders certified by the Commandant, a classification society recognized by the Commandant in accordance with 46 CFR 8.220, the U.S. Navy, or the national body where the release mechanism is constructed or the national body's designated recognized organization. Only electrodes intended for use with the material being welded may be used. All welds must be checked using appropriate non-destructive tests;

(5) Metals in contact with each other must be either galvanically compatible or insulated with suitable non-porous materials. Provisions must also be made to prevent loosening or tightening resulting from differences of thermal expansion, freezing, buckling of parts, galvanic corrosion, or other incompatibilities;

(6) Screws, nuts, bolts, pins, keys, and other similar hardware, securing moving parts must be fitted with suitable lock washers, cotter pins, or locks to prevent them from coming adrift;

(7) The on-load operation of the release mechanism must require two separate, deliberate actions by the operator;

(8) To prevent an accidental release during recovery of the boat, the release hooks must not be able to carry any

weight until the release mechanism is properly reset;

(9) The release and recovery procedures must be included as an illustrated operation instruction plate or placard. The plate or placard must be corrosion resistant and weatherproof and must be marked with the word "Danger". The illustrations must correspond exactly to those used in the instruction and maintenance manual provided by the manufacturer;

(10) The release lever or control must be red in color, and the area immediately surrounding the control must be a sharply contrasting light color;

(11) Each load carrying part of the release mechanism, including its connection to the boat, must be designed with a safety factor of six based on the ultimate strength of the materials used;

(12) The release lever and its connection to the release mechanism must be of sufficient strength so that there is no deformation of the release lever or the release control assembly during on-load release;

(13) Positive means of lubrication must be provided for each bearing which is not permanently lubricated. Points of lubrication must be so located that they are clearly visible and accessible in the installed position in the boat; and

(14) A hydraulic system, if used to activate the release mechanism, must be in accordance with 46 CFR part 58, subpart 58.30, with hose and fittings in accordance with 46 CFR part 56, subpart 56.60, except that—

(i) Push-on type fittings such as Aeroquip 1525–X, 25156–X, and FC332–X are not permitted;

(ii) The length of nonmetallic flexible hose is limited to 760 mm (30 in); and

(iii) If a hand pump is provided, adequate space must be provided for the hand pump or hand operation.

(c) Determinations of equivalence of design, construction, and materials will be made by the Commandant only.

§ 160.170–9 Preapproval review.

(a) Except as provided in paragraph (c) of this section, the Commandant must conduct the preapproval review, required by this section, in accordance with 46 CFR 159.005–5.

(b) *Manufacturer requirements*. To seek Coast Guard approval of a release mechanism, the manufacturer must submit an application to the Commandant meeting the requirements of 46 CFR 159.005–5 for preapproval review. To meet the requirements of 46 CFR 159.005–5(a)(2), the manufacturer must submit in triplicate—

(1) A list of drawings, specifications, manuals, and any other documentation submitted, with each document identified by number, title, revision issue, and date;

(2) General arrangement and assembly drawings, including principal dimensions;

(3) Stress calculations for all load carrying parts, including the release hooks, release mechanisms, and connections;

(4) Hydraulic systems drawings and specifications, if installed;

(5) Drawings of all signs and placards showing actual inscription, format, color, and size;

(6) An operation, maintenance, and training manual as described in §§ 160.170–19 and 160.170–21 of this subpart;

(7) A description of the quality control procedures and recordkeeping that will apply to the production of the release mechanism, which must include but is not limited to—

(i) The system for checking material certifications received from suppliers;

(ii) The method for controlling the inventory of materials;

(iii) The method for checking quality of fabrication and joints, including welding inspection procedures; and

(iv) The inspection checklists used during various stages of fabrication to assure that the approved release mechanism complies with the approved plans and the requirements of this subpart;

(8) Full details of any other unique capability;

(9) Any other drawing(s) necessary to show that the release mechanism complies with the requirements of this subpart;

(10) The location or address of all manufacturing sites, including the name and address of any subcontractors, where the release mechanism will be constructed; and

(11) The name of the independent laboratory that will perform the duties prescribed in § 160.170–15 of this subpart.

(c) At the request of the manufacturer and discretion of the Commandant, an independent laboratory may conduct preapproval review required by this section, so long as the preapproval review is conducted in accordance with the procedures agreed upon between the independent laboratory and Commandant under 46 CFR part 159, subpart 159.010.

(d) *Plan quality*. The plans and specifications submitted to the Commandant under this section must—

(1) Be provided in English, including all notes, inscriptions, and designations for configuration control;

(2) Address each of the applicable items in paragraph (b) of this section in sufficient detail to show that the release mechanism meets the construction requirements of this subpart;

(3) Accurately depict the proposed automatic release hook;

(4) Be internally consistent;

(5) Be legible; and

(6) If reviewed by an independent laboratory under paragraph (c) of this section, include the independent laboratory's attestation that the plans meet the quality requirements of this section.

(e) *Alternatives.* Alternatives in materials, parts, or construction, and each item replaced by an alternative, must be clearly indicated as such in the plans and specifications submitted to the Commandant under this section.

(f) *Coast Guard review.* If the plans or specifications do not comply with the requirements of this section, Coast Guard review may be suspended, and the applicant notified accordingly.

§ 160.170–11 [Reserved]

§ 160.170–13 Approval inspections and tests for prototype automatic release mechanisms.

(a) If the manufacturer is notified that the information submitted in accordance with § 160.170–9 of this subpart is satisfactory to the Commandant, the manufacturer may proceed with fabrication of the prototype release mechanism, and the approval inspections and tests required under this section.

(b) Except as provided in paragraph (f) of this section, the Coast Guard must conduct the approval inspections and witness the approval tests required under this section.

(c) *Manufacturer's requirements.* To proceed with approval inspections and tests required by this section, the manufacturer must—

(1) Notify the Commandant and cognizant Officer in Charge, Marine Inspection (OCMI) of where the approval inspections and tests required under this section will take place, and such notification must be in sufficient time to allow making travel arrangements;

(2) Arrange a testing schedule that allows for a Coast Guard inspector to travel to the site where the testing is to be performed;

(3) Admit the Coast Guard inspector to any place where work or testing is performed on release mechanisms or their component parts and materials for the purpose of—

(i) Conducting inspections as necessary to determine that the prototype—

(A) Conforms with the plans reviewed under § 160.170–9 of this subpart;

(B) Is constructed by the methods and with the materials specified in the plans reviewed under § 160.170–9 of this subpart; and

(C) When welding is part of the construction process, is constructed by the welding procedure and materials as per the plans reviewed under § 160.170–9 of this subpart, and the welders are appropriately qualified;

(ii) Assuring that the quality-assurance program of the manufacturer is satisfactory;

(iii) Witnessing tests; and

(iv) Taking samples of parts or materials for additional inspections or tests; and

(4) Make available to the Coast Guard inspector the affidavits or invoices from the suppliers of all essential materials used in the production of release mechanisms, together with records identifying the lot or serial numbers of the release mechanisms in which such materials were used.

(d) *Tests.* (1) *Prototype release mechanism readiness.* All tests must be conducted on a complete release mechanism.

(2) *IMO Revised recommendation on testing.* Each prototype release mechanism of each design must pass each of the tests described in IMO Revised recommendation on testing, Part 1, paragraph 8.2 (incorporated by reference, see § 160.170–5 of this subpart). Tests must be conducted in accordance with these paragraphs of IMO Revised recommendation on testing, Part 1, with the following modifications:

(i) *Visual inspection.* Each release mechanism must be visually inspected to confirm—

(A) Compliance with this subpart;

(B) Conformance with the examined plans; and

(C) Ease of operation and maintenance.

(ii) *Materials.* Steel meeting ASTM A 653 (incorporated by reference, see § 160.170–5 of this subpart) must meet the coating mass and bend tests requirement specified under ASTM A 653 after galvanizing or other anti-corrosion treatment has been applied. This compliance can be ascertained through a supplier's certification or by conducting actual tests.

(iii) *Tensile tests.* The release mechanism hook assembly and supporting structure must be tensile tested in a jig built to load the hook assembly in the same way or ways it would be loaded when used with a liferaft or rescue boat. The hook assembly will be approved for a

maximum of one-sixth of the highest load applied.

(iv) *Universal joints.* This test is required if the release mechanism employs universal joints to transmit the release power from the control to the hook release. One of each type and size of universal joint must be set up in a jig with the angles of leads set at 0 (zero), 30, and 60 degrees, respectively. A torque of 540 Nm (400 ft lb) must be applied. This torque must be applied with the connecting rod secured beyond the universal and with the lever arm in the horizontal position. There must be no permanent set, or undue stress, as a result of this test.

(v) *Hydraulic controls.* If the release mechanism includes a fluid power and control system, a test of the hydraulic controls must be conducted in accordance with 46 CFR 58.30–35.

(e) *Test waiver.* The Commandant may waive certain tests for a release mechanism identical in construction to smaller and larger release mechanisms that have successfully completed the tests. However, stress calculations in accordance with § 160.170–9(b) of this subpart must still be submitted. Tests associated with release mechanism components that have already been accepted by the Commandant are not required to be repeated.

(f) At the request of the manufacturer and discretion of the Commandant, an independent laboratory may perform approval inspections and witness approval tests required by this section so long as the inspections and tests are performed and witnessed in accordance with the procedures agreed upon between the independent laboratory and Commandant under 46 CFR part 159, subpart 159.010.

(g) After completion of approval inspections and tests required by this section, the manufacturer must comply with the requirements of 46 CFR 159.005–9(a)(5) by preparing and submitting to the Commandant for review—

(1) The prototype approval test report containing the same information recommended by IMO MSC Circ. 980 (incorporated by reference, see § 160.170–5 of this subpart). The report must include a signed statement by the Coast Guard inspector (or independent laboratory as permitted by paragraph (f) of this section) who witnessed the testing, indicating that the report accurately describes the testing and its results; and

(2) The final plans of the release mechanism as built. The plans must include, in triplicate, the instructions for training and maintenance described

in §§ 160.170–19 and 160.170–21 of this subpart, respectively.

(h) The Commandant will review the report and plans submitted under paragraph (g) of this section, and if satisfactory to the Commandant, will approve the plans under 46 CFR 159.005–13.

§ 160.170–15 Production inspections, tests, quality control, and conformance of release mechanisms.

(a) Unless the Commandant directs otherwise, an independent laboratory must perform or witness, as appropriate, inspections, tests, and oversight required by this section. Production inspections and tests of release mechanisms must be carried out in accordance with the procedures for independent laboratory inspection in 46 CFR part 159, subpart 159.007 and in this section unless the Commandant authorizes alternative tests and inspections. The Commandant may prescribe additional production tests and inspections necessary to maintain quality control and to monitor compliance with the requirements of this subpart.

(b) *Manufacturer's responsibility.* The manufacturer must—

(1) Institute a quality control procedure to ensure that all production release mechanisms are produced to the same standard, and in the same manner, as the prototype release mechanism approved by the Commandant. The manufacturer's quality control personnel must not work directly under the department or person responsible for either production or sales;

(2) Schedule and coordinate with the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section) to ensure that all tests are performed as described in this section;

(3) Submit to the Commandant, a yearly report that contains the following—

(i) Serial number and date of final assembly of each release mechanism constructed;

(ii) The name of the representative of the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section); and

(iii) Serial number and model name of the liferaft or rescue boat with which the release hook is to be used, if known;

(4) Ensure that the arrangement and materials entering into the construction of the release mechanism are in accordance with plans approved under § 160.170–13(h) of this subpart;

(5) Allow an independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section)

access to any place where materials are stored for the release mechanism, work or testing is performed on release mechanisms or their component parts and materials, or records are retained to meet the requirements of paragraph (c) of this section, for the purpose of—

(i) Assuring that the quality control program of the manufacturer is satisfactory;

(ii) Witnessing tests; or

(iii) Taking samples of parts or materials for additional inspections or tests; and

(6) Ensure that the independent laboratory (or Coast Guard inspector if required under paragraph (a) of this section) conducts the inspections and witnesses the tests required by paragraph (e) of this section, and further conducts a visual inspection to verify that the release mechanisms are being made in accordance with the plans approved under § 160.170–13(h) of this subpart and the requirements of this subpart.

(c) *Recordkeeping.* The manufacturer must maintain records in accordance with 46 CFR 159.007–13. The manufacturer must keep records of all items listed in this section for at least 5 years from the date of termination of approval of each release mechanism. The records must include—

(1) A copy of this subpart, other CFR sections referenced in this subpart, and each document listed in § 160.170–5 of this subpart;

(2) A copy of the approved plans and documentation;

(3) A current certificate of approval for each approved release mechanism;

(4) Affidavits, certificates, or invoices from the suppliers identifying all essential materials used in the production of approved release mechanisms, together with records identifying the serial numbers of the release mechanisms in which such materials were used;

(5) Records of all structural welding and name of operator(s);

(6) Records of welder certificates, training, and qualifications;

(7) Date and results of calibration of test equipment and the name and address of the company or agency that performed the calibration;

(8) The serial number of each production release gear, along with records of its inspections and tests carried out under this section; and

(9) The original purchaser of each release gear and the vessel on which it was installed, if known.

(d) *Independent laboratory responsibility.* The independent laboratory must perform or witness, as appropriate, the inspections and tests

under paragraph (e) of this section for each Coast Guard-approved release mechanism to be installed on a U.S.-flagged vessel. If the manufacturer also produces release mechanisms for approval by other maritime safety administrations, the inspections may be coordinated with inspection visits for those administrations.

(e) *Production inspections and tests.* Each finished release mechanism must be visually inspected. The manufacturer must develop and maintain a visual inspection checklist designed to ensure that all applicable requirements have been met. Each approved release mechanism constructed with non-corrosion resistant steel must be confirmed to have met the coating mass and bend tests requirement specified under ASTM A 653 (incorporated by reference, see § 160.170–5 of this subpart) after galvanizing or other anti-corrosion treatment has been applied. This compliance can be ascertained through a supplier's certification papers or through conducting actual tests.

(f) Each approved release mechanism must pass each of the tests described in IMO Revised recommendation on testing, part 2, paragraph 6.2 (incorporated by reference, see § 160.170–5 of this subpart). However, each approved release mechanism for installation of a single-fall rescue boat must pass each of the tests described in IMO Revised recommendation on testing, part 2, paragraph 5.3.1 and 5.3.4.

§ 160.170–17 Marking and labeling.

(a) Each hook body of a release mechanism must be marked with a plate or label permanently affixed in a conspicuous place readily accessible for inspection and sufficiently durable to withstand continuous exposure to environmental conditions at sea for the life of the release mechanism.

(b) The plate or label must be in English, but may also be in other languages.

(c) The plate or label must contain the—

(1) Manufacturer's name and model identification;

(2) Name of the independent laboratory that witnessed the prototype or production tests;

(3) Serial number of the release mechanism;

(4) U.S. Coast Guard approval number;

(5) Month and year of manufacture;

(6) Safe working load of the release mechanism;

(7) Number of the test certificate in accordance with IMO Revised recommendation on testing, part 2/6.2.2

(incorporated by reference, see § 160.170-5 of this subpart); and
(8) Word “SOLAS.”

§ 160.170-19 Operating instructions and information for the ship's training manual.

(a) In order to comply with SOLAS, each release mechanism must have instructions and information for the ship's training manual that use the symbols from IMO Res. A.760(18) (incorporated by reference, see § 160.170-5 of this subpart) to describe the location and operation of the winch.

(b) The instructions and information required by paragraph (a) of this section may be combined with similar material for survival craft and rescue boats, and their launching systems.

(c) The release mechanism manufacturer must make the instructions and information required by paragraph (a) of this section available—

(1) In English to purchasers of release mechanisms approved by the Coast Guard; and

(2) In the form of an instruction placard providing simple procedures and illustrations for operation of the release mechanism. The placard must be not greater than 36 cm (14 in) by 51 cm (20 in), and must be made of durable material and suitable for display inside a lifeboat and rescue boat, and near launching apparatuses on vessels.

§ 160.170-21 Operation and maintenance instructions.

(a) Each release mechanism must have operation and maintenance instructions that—

(1) Follows the general format and content specified in IMO MSC.1 Circ. 1205 (incorporated by reference, see § 160.170-5 of this subpart); and

(2) Includes a checklist for use in monthly, external inspections of the release mechanism.

(b) The release mechanism manufacturer must make the manual required by paragraph (a) of this section available in English to purchasers of a release mechanism approved by the Coast Guard.

(c) The operation and maintenance instructions required by paragraph (a) of this section may be combined with similar material for survival craft and rescue boats, and their launching systems.

§ 160.170-23 Procedure for approval of design, material, or construction change.

(a) Each change in design, material, or construction from the plans approved under 46 CFR 159.005-13 and § 160.170-13(h) of this subpart must be approved by the Commandant before being used in any production release

mechanism. The manufacturer must submit any such change following the procedures in § 160.170-9 of this subpart, but documentation on items that are unchanged from the plans approved under 46 CFR 159.005-13 and § 160.170-13(h) of this subpart need not be resubmitted.

(b) Unless determined by the Commandant to be unnecessary, a prototype release mechanism with each change described in paragraph (a) of this section must be made and tested according to the procedures for new approvals in §§ 160.170-9 through 160.170-13 of this subpart.

(c) Determinations of equivalence of design, construction, and materials will be made by the Commandant only.

■ 46. Add subpart 160.900 to read as follows:

Subpart 160.900—Preemption

Sec.

160.900-1 Preemption of State or local law.

160.900-3 [Reserved]

Subpart 160.900—Preemption

§ 160.900-1 Preemption of State or local law.

The regulations in this part have preemptive effect over State or local regulation within the same field.

§ 160.900-3 [Reserved]

PART 164—MATERIALS

■ 47. The authority citation for part 164 continues to read as follows:

Authority: 46 U.S.C. 3306, 3703, 4302; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; 49 CFR 1.46.

■ 48. Add subpart 164.120 to read as follows:

Subpart 164.120—Fire Retardant Resins for Lifeboats and Rescue Boats

Sec.

164.120-1 Scope.

164.120-3 Definitions.

164.120-5 Incorporation by reference.

164.120-7 Acceptance criteria.

164.120-9 Procedure for acceptance.

164.120-11 Production quality control requirements.

164.120-13 Marking, labeling, and instructions for use.

164.120-15 Procedure for acceptance of material change.

Subpart 164.120—Fire Retardant Resins for Lifeboats and Rescue Boats

§ 164.120-1 Scope.

This subpart contains performance requirements, acceptance tests, and production testing and inspection requirements for fire retardant resins used in the construction of lifeboats

approved under 46 CFR part 160, subpart 160.135 and rescue boats approved under 46 CFR part 160, subpart 160.156.

§ 164.120-3 Definitions.

In this subpart, the term:

Acceptance means certification by the Coast Guard that a component is suitable for use in the manufacture of Coast Guard-approved lifeboats and rescue boats.

Commandant means the Commandant (CG-5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593-7126.

§ 164.120-5 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 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 Commandant (CG-5214), U.S. Coast Guard, 2100 Second Street, SW., Stop 7126, Washington, DC 20593-7126. You may also inspect this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html. You may obtain copies of the material from the sources specified in the following paragraphs.

(b) American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA, 19428-2959.

(1) ASTM D 543-06, Standard Practices for Evaluating the Resistance of Plastics to Chemical Reagents, (approved April 1, 2006), IBR approved for § 164.120-7 (“ASTM D 543”).

(2) ASTM D 570-98 (Reapproved 2005), Standard Test Method for Water Absorption of Plastics, (approved November 1, 2005), IBR approved for § 164.120-7 (“ASTM D 570”).

(3) ASTM D 638-08, Standard Test Method for Tensile Properties of Plastics, (approved April 1, 2008), IBR approved for § 164.120-7 (“ASTM D 638”).

(4) ASTM D 695-08, Standard Test Method for Compressive Properties of Rigid Plastics, (approved August 1, 2008), IBR approved for § 164.120-7 (“ASTM D 695”).

(5) ASTM D 790-07e1, Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials,

(approved September 1, 2007), IBR approved for § 164.120-7 (“ASTM D 790”).

(6) ASTM D 792-08, Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement, (approved June 15, 2008), IBR approved for § 164.120-7 (“ASTM D 792”).

(7) ASTM D 1045-08, Standard Test Methods of Sampling and Testing Plasticizers used in Plastics, (approved August 1, 2008), IBR approved for § 164.120-7 (“ASTM D 1045”).

(8) ASTM D 1824-95 (Reapproved 2002), Standard Test Method for Apparent Viscosity of Plastisols and Organosols at Low Shear Rates, (approved March 15, 1995), IBR approved for § 164.120-7 (“ASTM D 1824”).

(9) ASTM D 2471-99, Standard Test Method for Gel Time and Peak Exothermic Temperature of Reacting Thermosetting Resins, (approved November 10, 1999), IBR approved for § 164.120-7 (“ASTM D 2471”).

(10) ASTM D 2583-07, Standard Test Method for Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor, (approved March 1, 2007), IBR approved for § 164.120-7 (“ASTM D 2583”).

(11) ASTM D 2584-08, Standard Test Method of Ignition Loss for Cured Reinforced Resins, (approved May 1, 2008), IBR approved for § 164.120-7 (“ASTM D 2584”).

(12) ASTM G 154-06, Standard Practice for Operating Fluorescent Light Apparatus for UV Exposure of Nonmetallic Materials, (approved June 5, 2006), IBR approved for § 164.120-7 (“ASTM G 154-06”).

(c) International Maritime Organization (IMO), Publications Section, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://www.imo.org/>.

(1) MSC Circular 1006, Guidelines On Fire Test Procedures For Acceptance Of Fire-Retardant Materials For The Construction Of Lifeboats, (approved June 18, 2001), IBR approved for § 164.120-7 (“IMO MSC Circ. 1006”).

(2) [Reserved].

(d) International Organization for Standardization (ISO): ISO Central Secretariat [ISO Copyright Office], Case Postale 56, CH-1211 Geneve 20, Switzerland.

(1) ISO 62:2008(E), Plastics—Determination of water absorption, Third Edition (February 15, 2008), IBR approved for § 164.120-7 (“ISO 62”).

(2) ISO 175:1999(E), Plastics—Methods of test for the determination of the effects of immersion in liquid chemicals, Second Edition (May 1, 1999), IBR approved for § 164.120-7 (“ISO 175”).

(3) ISO 14125:1998(E), Fibre-reinforced plastic composites—Determination of flexural properties, First Edition (March 1, 1998), IBR approved for § 164.120-7 (“ISO 14125”).

(4) ISO 527-1:1993(E), Plastics—Determination of tensile properties, Part 1: General Principles, First Edition (June 15, 1993), IBR approved for § 164.120-7 (“ISO 527”).

(5) ISO 604:2002(E), Plastics—Determination of compressive properties, Third Edition (March 1, 2002), IBR approved for § 164.120-7 (“ISO 604”).

(6) ISO 1172:1996(E), Textile-glass-reinforced plastics—Prepregs, moulding compounds and laminates—Determination of the textile-glass and mineral-filler content—Calcination methods, Second Edition (December 15, 1996), IBR approved for § 164.120-7 (“ISO 1172”).

(7) ISO 1183-1:2004(E), Plastics—Methods for determining the density of non-cellular plastics—Part 1: Immersion method, liquid pycnometer method and titration method, First Edition (February 1, 2004), IBR approved for § 164.120-7 (“ISO 1183”).

(8) ISO 1675-1985(E), Plastics—Liquid resins—Determination of density by the pycnometer method, Second Edition (August 15, 1985), IBR approved for § 164.120-7 (“ISO 1675”).

(9) ISO 2039-2:1987(E), Plastics—Determination of hardness—Part 2: Rockwell hardness, Second Edition (July 15, 1987), IBR approved for § 164.120-7 (“ISO 2039-2”).

(10) ISO 2114:2000(E), Plastics (polyester resins) and paints and varnishes (binders)—Determination of partial acid value and total acid value, Third Edition (August 1, 2000), IBR approved for § 164.120-7 (“ISO 2114”).

(11) ISO 2535:2001(E), Plastics—Unsaturated-polyester resins—Measurement of gel time at ambient temperature, Third Edition (July 15, 2001), IBR approved for § 164.120-7 (“ISO 2535”).

(12) ISO 2555:1989(E), Plastics—Resins in the liquid state or as emulsions or dispersions—Determination of apparent viscosity by the Brookfield test method, Second Edition (February 1, 1989, Corrected

and reprinted February 1, 1990), IBR approved for § 164.120-7 (“ISO 2555”).

(e) Military Specifications and Standards, Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, <https://assist.daps.dla.mil/quicksearch/>.

(1) MIL-R-7575C, Military Specification, Resin, Polyester, Low-Pressure Laminating, (June 29, 1966), IBR approved for § 164.120-7 (“MIL-R-7575C”).

(2) MIL-R-21607E(SH), Military Specification, Resins, Polyester, Low Pressure Laminating, Fire-Retardant, (May 25, 1990), IBR approved for § 164.120-7 (“MIL-R-21607E(SH)”).

(3) MIL-R-24719(SH), Military Specification, Resins, Vinyl Ester, Low Pressure Laminating, (May 4, 1989), IBR approved for § 164.120-7 (“MIL-R-24719(SH)”).

§ 164.120-7 Acceptance criteria.

(a) The laminating resin must pass the inspections and tests specified in this section. The inspections and tests required by this section, including weathering of samples, are the responsibility of the manufacturer and must be performed by an independent laboratory.

(1) *Polyester resins.* (i) The resin must meet the specifications of Grade A, Class O resin of MIL-R-7575C (incorporated by reference, see § 164.120-5 of this subpart) and meet the specifications conforming to Grade A (standard flame resistance) of MIL-R-21607E(SH) (incorporated by reference, see § 164.120-5 of this subpart).

(ii) MIL-R-21607E(SH) Grade B resins will be given consideration upon request.

(2) *Vinyl ester resins.* The resin must meet the specifications of Grade B (fire retardant) resin of MIL-R-24719(SH) (incorporated by reference, see § 164.120-5 of this subpart) and must be tested and meet the requirements of weathering and post-weathering mechanical testing as shown in Table 164.120-7 of this section. Samples for the weathering must be prepared in accordance with MIL-R-7575C paragraph 4.3.1.1.

(3) *All other resins.* Each resin formulation submitted for Coast Guard approval, other than those addressed in paragraphs (a)(1) and (2) of this section, must be tested and meet the requirements of Table 164.120-7 of this section.

(b) [Reserved].

TABLE 164.120-7—ALTERNATIVE TEST METHOD STANDARDS FOR LAMINATING RESINS FOR USE IN LIFEBOATS, RESCUE BOATS, AND OTHER LIFESAVING EQUIPMENT ¹

Property	Test methods
(c) Material Identification Tests ²	
(1) Uncatalyzed Liquid Resin:	
(i) Specific gravity	ISO 1675 or ASTM D 1045.
(ii) Viscosity	ISO 2555 or ASTM D 1824.
(iii) Acid number	ISO 2114 or ASTM D 1045.
(2) Catalyzed Resin:	
(i) Max gel time	ISO 2535 or ASTM D 2471.
(ii) Peak exotherm	ASTM D 2471.
(3) Cured Unfilled Resin:	
(i) Barcol hardness	ISO 2039-2 or ASTM D 2583.
(ii) Specific gravity/density	ISO 1183 or ASTM D 792.

Property	Test method	Requirements ³
(d) Lengthwise Mechanical & Physical Properties of Glass Cloth Base Plastic Laminate		

(Lengthwise direction of test specimens is parallel to the warp direction of glass fabric.)

(1) Tested Under Standard Conditions:		
(i) Ultimate strength, flatwise	ISO 14125 or ASTM D 790	345 MPa (50,000 lb/in ²).
(ii) Initial modulus of elasticity, flatwise	ISO 14125 or ASTM D 790	18,616 MPa (2.7 × 10E6 lb/in ²).
(iii) Ultimate tensile strength	ISO 527 or ASTM D 638	278 MPa (40,000 lb/in ²).
(iv) Ultimate compressive strength, edgewise	ISO 604 or ASTM D 695	241 MPa (35,000 lb/in ²).
(v) Fire retardant	MSC Circ. 1006	Pass.
(vi) Water absorption, 24-hour immersion	ISO 62 or ASTM D 570	0.5% max change in weight.
(vii) Barcol hardness	ISO 2039-2 or ASTM D 2583	55.
(viii) Specific gravity/density	ISO 1183 or ASTM D 792	(²).
(ix) Resin content, percentage	ISO 1172 or ASTM D 2584	(²).
(2) Tested Under Wet Conditions (Specimens must be immersed for 2 hours in boiling distilled water as per ASTM D 570 paragraph 7.5. The specimens must then be cooled in water at 23° C and tested wet at standard conditions immediately after removal from the water.):		
(i) Ultimate strength, flatwise	ISO 14125 or ASTM D 790	310 MPa (45,000 lb/in ²).
(ii) Initial modulus of elasticity, flatwise	ISO 14125 or ASTM D 790	17,237 MPa (2.5 × 10E6 lb/in ²).
(iii) Ultimate tensile strength	ISO 527 or ASTM D 638	278 MPa (40,000 lb/in ²).
(iv) Ultimate compressive strength, edgewise	ISO 604 or ASTM D 695	241 MPa (35,000 lb/in ²).
(3) Tested Under Elevated Temperature Conditions (Specimens must be exposed to 70° C for 1 hour and tested at that temperature.):		
(i) Ultimate strength, flatwise	ISO 14125 or ASTM D 790	276 MPa (40,000 lb/in ²).
(ii) Initial modulus of elasticity, flatwise	ISO 14125 or ASTM D 790	15,858 MPa (2.3 × 10E6 lb/in ²).
(4) Tested After Exposure to Liquid Chemicals (Standard test chemical reagents.)		
(i) Change in mass & dimensions	ISO 175 or ASTM D 543	0.1% max.
(ii) Ultimate strength	ISO 14125 or ASTM D 790	(²).
(5) Tested After Weathering (Specimens must be weathered by either: 1 year per MIL-R-7575C or 500-hour exposure per ASTM G154 Table X2.1 Cycle 1 or 3.):		
(i) Ultimate strength, flatwise	ISO 14125 or ASTM D 790	310 MPa (45,000 lb/in ²).
(ii) Initial modulus of elasticity, flatwise	ISO 14125 or ASTM D 790	17,237 MPa (2.5 × 10E6 lb/in ²).
(iii) Fire retardant	MSC Circ. 1006	Pass.

¹ Each standard in this table is incorporated by reference, see § 164.120-5 of this subpart.

² There are no requirements for these properties, but the values must be determined and reported. Calculations for ultimate flexural strength after immersion in chemical fluids must be based on the dimensions of the specimens before immersion.

³ The specimens must show no cracking, crazing, softening, delamination, or any other visible deterioration after conditioning exposure or immersions.

§ 164.120-9 Procedure for acceptance.

(a) Fire retardant resin is not subject to formal approval, but will be accepted by the Coast Guard on the basis of this subpart for use in the manufacture of lifesaving equipment. Coast Guard acceptance of fire retardant resin for use in the manufacture of lifesaving

equipment does not guarantee Coast Guard acceptance of the manufactured lifesaving equipment.

(b) *Resin manufacturer requirements.* The resin manufacturer must submit the test report, material data sheet, including instructions for use, and

quality control procedures in accordance with 46 CFR 159.005-9.

(c) *Independent laboratory requirements.* The independent laboratory must perform each inspection and test required by § 164.120-7 of this subpart, and prepare a report in accordance with 46 CFR 159.005-11

and submit the report to the Commandant for acceptance.

§ 164.120–11 Production quality control requirements.

The resin manufacturer must institute a quality control procedure to ensure that all Coast Guard-accepted resin is produced to the same standard, and in the same manner as the tested resin accepted by the Commandant. The manufacturer's quality control personnel must not work directly under the department or person responsible for either production or sales.

§ 164.120–13 Marking, labeling, and instructions for use.

(a) *Marking and labeling.* Each container for the resin must be permanently marked with at least the following information—

- (1) Manufacturer's name or trademark, batch number, date of manufacture, and date of expiration;
- (2) Chemical type of the resin;
- (3) Maximum usable storage life of the resin (uncatalyzed and catalyzed) and recommended storage conditions;
- (4) Maximum allowable shelf life at various temperatures of impregnated fabric before curing; and
- (5) Precautionary markings.

(b) Instructions for use must be included with each shipment of approved material and must include—

- (1) Recommended mixing and impregnating procedures, including recommended types, percentages, and manner of utilization of catalysts, retardants, and fillers, as applicable;
- (2) Range of time, temperature, and pressure cycles recommended to effect the cure for laminates; and
- (3) Precautionary information on usage, storage, and handling.

§ 164.120–15 Procedure for acceptance of material change.

(a) Each change in material from the resin accepted under § 164.120–9 of this subpart must be accepted by the Commandant before being used in any production lifeboat or rescue boat. The

manufacturer must submit any such change following the procedures set forth in § 164.120–9 of this subpart, but documentation on items that are unchanged from the resin accepted under § 164.120–9 of this subpart need not be resubmitted.

(b) Determinations of equivalence of materials will be made by the Commandant only.

■ 49. Add subpart 164.900 to read as follows:

Subpart 164.900—Preemption

Sec.

164.900–1 Preemption of State or local law.
164.900–3 [Reserved]

Subpart 164.900—Preemption

§ 164.900–1 Preemption of State or local law.

The regulations in this part have preemptive effect over State or local regulation within the same field.

§ 164.900–3 [Reserved]

PART 180—LIFESAVING EQUIPMENTS AND ARRANGEMENTS

■ 50. The authority citation for part 180 continues to read as follows:

Authority: 46 U.S.C. 2104, 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

■ 51. In § 180.150, revise paragraph (a) introductory text and add paragraph (c) to read as follows:

§ 180.150 Survival craft embarkation arrangements.

(a) A launching appliance described in paragraph (c) of this section, or a marine evacuation system approved under approval series 160.175, must be provided for each inflatable liferaft and inflatable buoyant apparatus when either—

* * * * *

(c) Each launching appliance for a davit-launched liferaft must include an automatic disengaging apparatus

approved under 46 CFR part 160, subpart 160.170 and be either—

(1) A davit approved under 46 CFR part 160, subpart 160.132 for use with a liferaft, with a winch approved under 46 CFR part 160, subpart 160.115 for use with a liferaft; or

(2) A launching appliance approved on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION OF INTERIM RULE] under approval series 160.163.

PART 199—LIFESAVING SYSTEMS FOR CERTAIN INSPECTED VESSELS

■ 52. The authority citation for part 199 continues to read as follows:

Authority: 46 U.S.C. 3306, 3703; Pub. L. 103–206, 107 Stat. 2439; Department of Homeland Security Delegation No. 0170.1.

■ 53. Revise § 199.150(a) to read as follows:

§ 199.150 Survival craft launching and recovery arrangements; general.

(a)(1) Each launching appliance must be approved under 46 CFR part 160, subpart 160.132 for use with the intended craft, with a winch approved under 46 CFR part 160, subpart 160.115 for use with the intended craft.

(2) Each launching appliance for a davit-launched liferaft must include an automatic disengaging apparatus approved under 46 CFR part 160, subpart 160.170 and be either—

(i) A launching appliance described in paragraph (a)(1) of this section; or

(ii) A launching appliance approved on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION OF INTERIM RULE] under approval series 160.163.

* * * * *

Dated: September 22, 2011.

J.G. Lantz,

Director of Commercial Regulations and Standards, U.S. Coast Guard.

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