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9110-04-P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Parts 140, 145, 148, and 149

46 CFR Parts 25, 27, 28, 30, 31, 32, 34, 50, 56, 70, 71, 72, 76, 78, 90, 91, 92, 95, 107, 108, 113, 114, 116, 118, 122, 125, 132, 147, 159, 160, 161, 162, 164, 167, 169, 175, 176, 177, 181, 182, 185, 188, 189, 190, and 193

[Docket No. USCG-2012-0196]

RIN 1625-AB59

Harmonization of Standards for Fire Protection, Detection, and Extinguishing Equipment

AGENCY: Coast Guard, DHS.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Coast Guard proposes to amend its regulations for certain design and approval standards for fire protection, detection, and extinguishing equipment on inspected and uninspected vessels, outer continental shelf facilities, deepwater ports, and mobile offshore drilling units. The proposed amendments would harmonize Coast Guard regulations with appropriate national and international consensus standards; address advances in fire protection technologies and standards; update Coast Guard approval processes for fire detection and alarm systems; and revise Coast Guard regulations for other types of equipment or components, such as spanner wrenches, non-metallic pipes,

and sprinkler systems. These proposed changes are necessary to ensure Coast Guard regulations remain current and address advances in technology.

DATES: Comments and related material must either be submitted to our online docket via <http://www.regulations.gov> on or before [INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] or reach the Docket Management Facility by that date.

ADDRESSES: You may submit comments identified by docket number USCG-2012-0196 using any one of the following methods:

(1) Federal eRulemaking Portal: <http://www.regulations.gov>.

(2) Fax: (202) 493-2251.

(3) Mail: Docket Management Facility (M-30), U.S. Department of Transportation, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590-0001.

(4) Hand delivery: Same as mail address above, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is (202) 366-9329.

To avoid duplication, please use only one of these four methods. See the “Public Participation and Request for Comments” portion of the SUPPLEMENTARY INFORMATION section below for instructions on submitting comments.

Viewing incorporation by reference material: You may inspect the material proposed for incorporation by reference at room 5S 18-07, U.S. Coast Guard Headquarters, Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509 between 9:00 a.m. and 3:00 p.m., Monday through Friday, except Federal holidays.

The telephone number is (202) 372-1392. 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 proposed rule, call or email LCDR John Miller, Office of Design and Engineering Standards, Lifesaving and Fire Safety Division (CG-ENG-4), Coast Guard; (202) 372-1372, TypeApproval@uscg.mil. If you have questions on viewing or submitting material to the docket, call Barbara Hairston, Program Manager, Docket Operations, telephone (202) 366-9826.

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I. Public Participation and Request for Comments

We encourage you to participate in this rulemaking by submitting comments and related materials. All comments received will be posted, without change, to <http://www.regulations.gov> and will include any personal information you have provided.

A. Submitting Comments

If you submit a comment, please include the docket number for this rulemaking (USCG-2012-0196), indicate the specific section of this document to which each comment applies, and provide a reason for each suggestion or recommendation. You may submit your comments and material online or by fax, mail, or hand delivery, but please use only one of these means. We recommend that you include your name and a mailing address, an e-mail address, or a phone number in the body of your document so that we can contact you if we have questions regarding your submission.

To submit your comment online, go to <http://www.regulations.gov> and follow the instructions on that website. If you submit your comments by mail or hand delivery, submit them in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. If you submit comments by mail and would like to know that they reached the Facility, please enclose a stamped, self-addressed postcard or envelope.

We will consider all comments and material received during the comment period

and may change this proposed rule based on your comments.

B. Viewing Comments and Documents

To view comments, as well as documents mentioned in this preamble as being available in the docket, go to <http://www.regulations.gov> and follow the instructions on that website. If you do not have access to the internet, you may view the docket online by visiting the Docket Management Facility in Room W12-140 on the ground floor of the Department of Transportation West Building, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. We have an agreement with the Department of Transportation to use the Docket Management Facility.

C. Privacy Act

Anyone can search the electronic form of comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review a Privacy Act notice regarding our public dockets in the January 17, 2008, issue of the Federal Register (73 FR 3316).

D. Public Meeting

The Coast Guard does not currently plan to hold a public meeting. You may submit a request for one to the docket using one of the methods specified under ADDRESSES. In your request, explain why you believe a public meeting would be beneficial. If we determine that one would aid this rulemaking, we will hold one at a time and place announced by a later notice in the Federal Register.

II. Abbreviations

ABS	American Bureau of Shipping Rules for Building and Classing Steel Vessels
AHJ	Authority Having Jurisdiction
ANSI	American National Standards Institution
ASTM	ASTM International
BLS	Bureau of Labor Statistics
CFR	Code of Federal Regulations
COI	Collection of Information
CO ₂	Carbon Dioxide
COA	Certificate of Approval
DHS	Department of Homeland Security
EC	European Community
EEA	European Economic Area
EFTA	European Free Trade Association
ENV3	Category ENV3 Tests of Lloyds Register Type Approval System
E.O.	Executive Order
FR	<u>Federal Register</u>
FSS Code	Fire Safety Systems Code
FTP Code	Fire Test Procedures Code
GT	Gross Ton
IMO	International Maritime Organization
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
MISLE	Marine Information for Safety and Law Enforcement
MODU	Mobile Offshore Drilling Unit
MRA	Mutual Recognition Agreement
NFPA	National Fire Protection Association
NPRM	Notice of Proposed Rulemaking
NRTL	Nationally Recognized Testing Laboratory
NVIC	Navigation and Vessel Inspection Circular
OCS	Outer Continental Shelf
OCMI	Officer in Charge Marine Inspections
OSHA	Occupational Safety and Health Administration
OSV	Offshore Supply Vessel
PFM	Policy File Memorandum
RA	Regulatory Analysis
§	Section Symbol
SOLAS	International Convention for the Safety of Life at Sea
UL	Underwriters Laboratory
U.S.C.	United States Code

III. Executive Summary

A. Purpose of the Regulatory Action

This proposed regulatory action is necessary to update Coast Guard regulations pertaining to certain design and approval standards for fire detection and alarm systems, fire extinguishers, and other fire prevention equipment used on inspected and uninspected vessels, Outer Continental Shelf (OCS) facilities, deepwater ports, and mobile offshore drilling units (MODUs). The proposed updates would harmonize our regulations with national and international industry consensus standards, and incorporate other advances in fire protection technologies and standards.

The basis of this notice of proposed regulatory action is the Secretary of Homeland Security's regulatory authority under the following statutes. Section 1333 of Title 43, United States Code (U.S.C) mandates the issuance of safety equipment regulations on OCS facilities; 46 U.S.C. 3306 mandates the issuance of firefighting material and equipment regulations for Coast Guard inspected vessels and the issuance of structural fire protection and equipment regulations for small passenger vessels; 46 U.S.C. 3703 mandates firefighting equipment and material regulations for vessels carrying liquid bulk dangerous cargoes; 46 U.S.C. 4102 authorizes marine safety equipment regulations for fire extinguishers, life preservers, engine flame arrestors, engine ventilation, and emergency locating equipment on uninspected vessels, and authorizes regulations, after consultation with the Towing Safety Advisory Committee, for fire protection and suppression measures on towing vessels; 46 U.S.C. 4302 authorizes safety equipment such as firefighting equipment regulations for recreational vessels; and 46 U.S.C. 4502 mandates fire extinguisher regulations for some uninspected commercial fishing vessels and authorizes safety equipment regulations for certain other uninspected commercial fishing vessels. Section 1509 of Title 33, U.S.C., authorizes the

Coast Guard to promulgate regulations for safety equipment relating to the promotion of safety of life and property in deepwater ports. The Secretary of Homeland Security has delegated these statutory authorities to the Coast Guard through Delegation No. 0170.1.

Under the statutory authorities listed above, the Coast Guard is authorized to develop and maintain standards for fire protection, detection, and extinguishing equipment on inspected and uninspected vessels, OCS facilities, deepwater ports, and MODUs. The Coast Guard implements these authorities through regulations specified in Table 1. Table 1 lists the subchapters in Titles 33 and 46 of the Code of Federal Regulations (CFR) affected by this proposed regulatory action (collectively referred to as “affected subchapters”), and provides a breakdown of each subchapter by subject matter.

Table 1—Affected subchapters

CFR Title	Subchapter	Parts	Topic
33	N	140-147	Outer Continental Shelf Activities
33	NN	148-150	Deepwater Ports
46	C	24-28	Uninspected Vessels
46	D	30-39	Tank Vessels
46	F	50-64	Marine Engineering
46	H	70-89	Passenger Vessels
46	I	90-105	Cargo and Miscellaneous Vessels
46	I-A	107-109	Mobile Offshore Drilling Units
46	J	110-113	Electrical Engineering
46	K	114-124	Small Passenger Vessels Carrying more than 150 Passengers or with Overnight Accommodations for more than 49 Passengers
46	L	125-139	Offshore Supply Vessels
46	N	140-149	Dangerous Cargoes
46	Q	159-165	Equipment, Construction and Material Specifications and Approval
46	R	166-169	Nautical Schools
46	T	175-187	Small Passenger Vessels (Under 100 Gross Tons (GT))
46	U	188-196	Oceanographic Research Vessels

B. Summary of the Major Provisions of the Proposed Regulatory Action

The major proposed provisions of this regulatory action harmonize Coast Guard regulations with national and international industry consensus standards and update Coast Guard regulations to incorporate advances in fire protection technology for specific types of fire protection, detection, and extinguishing equipment. Provisions are discussed below and are grouped by equipment type or topic.

Fire detection and alarm systems:

- Provide vessels with the option to meet either the applicable International Convention for the Safety of Life at Sea, 1974 (SOLAS) and the International Maritime Organization (IMO) Fire Safety Systems (FSS) Code requirements, or updated Coast Guard regulations for the design and installation of fire detection and alarm systems. These proposed changes would provide vessel owners and/or operators and designers greater flexibility in fire detection and alarm system design for U.S. domestic vessels.
- Consolidate and update the fire detection and alarm system requirements in 46 CFR subchapter H (passenger vessels). These changes would also affect 46 CFR subchapters C, I, K, and T vessels where the regulations refer to subchapter H for fire detection and alarm system requirements. The consolidation of these requirements would make it easier for industry to locate and meet these requirements. The proposed updates reflect advancements in the fire detection and alarm systems industry, which include development of digital technology and modern seamless electronic technology for the much larger land-based market. The Coast Guard would not require retrofitting of currently installed systems, but

would require any modifications to installed systems or new installations to comply with the updated requirements after a 2 1/2 year compliance period.

- Revise Coast Guard approval processes for fire detection and alarm systems by allowing manufacturers of fire detection and alarm systems equipment the option of seeking approval for an entire system or an individual device; making approval processes easier for manufacturers by allowing some approval tests to be completed by an approved third party nationally recognized testing laboratory (NRTL); and requiring the use of the most current and widely used national consensus standards for approval of fire detection and alarm systems, as specified by this rulemaking. These revisions would allow for an easier replacement of individual devices and open the market to small manufacturers or to those dedicated to making components but not producing all components necessary for a complete detection system. They would also provide manufacturers more flexibility and options for choosing a laboratory; and align our regulations with the most up-to-date national consensus standards that are already widely used by the fire detection industry.

Fire extinguishers:

- Replace the Coast Guard's weight-based rating system for fire extinguishers with the Underwriters Laboratory (UL) performance-based rating system. Adopting the national industry standard rating system would streamline the selection, inspection, and approval processes for marine fire extinguishers.
- Revise maintenance requirements for fire extinguishers by adopting National Fire Protection Association (NFPA) 10 "Standard for Portable Fire Extinguishers"

(2010 Edition), which requires certified personnel to conduct annual fire extinguishing equipment maintenance. NFPA 10 distinguishes between monthly inspections (a visual check) and annual maintenance (a thorough inspection of materials and components, and associated repairs). Vessel crewmembers could continue to perform monthly inspections, however, a certified person would be required to conduct annual maintenance. This proposed change would align Coast Guard regulations with the current industry practice of having annual maintenance performed by commercial servicing companies.

- Codify use of UL standards for testing and labeling of fire extinguishers. These standards provide detailed, technical requirements for construction, performance, testing, packaging, and marking of the specific type of extinguisher. This proposed change would align Coast Guard regulations with current industry practice.
- Reduce the number of spare portable fire extinguishers required on vessels traveling domestic routes. This change is proposed because of the proposed enhanced maintenance requirements that would result in more reliable spares, as well as making new spares more easily obtainable.

Other fire protection equipment:

- Require small passenger vessels to carry spanner wrenches for fire hydrants that use 1.5-inch diameter hoses. This proposed requirement for small passenger vessels is consistent with spanner wrench carriage requirements for other vessel types, and is necessary to ensure that fire hoses can be replaced and deployed as needed.

Fire protection equipment approvals:

- Add new specification subparts in 46 CFR subchapter Q to address existing and new approval series for fire protection equipment and components required for use on SOLAS ships. The new approval series would codify the standards and procedures currently used by industry to obtain Coast Guard approval for fire protection equipment and components required on SOLAS ships. The new approval series would set forth design, construction, testing, and performance requirements for the affected equipment and components satisfying SOLAS requirements.
- Codify an alternative path to Coast Guard approval through an existing Mutual Recognition Agreement (MRA) to which the U.S. is a party, allowing for Coast Guard approvals of certain fire protection equipment issued by another nation that is party to the MRA. This proposed change would reduce manufacturer costs and burdens associated with duplicative testing and evaluation for multiple national approvals.

IV. Background and Purpose

This rulemaking is part of a continued response to the Presidential Regulatory Reform Initiative of March 4, 1995 entitled “Regulatory Reinvention Initiative,” which called for a review of agency regulations with the goals of: (1) Cutting obsolete regulations; (2) Focusing on results instead of process and punishment; (3) Convening meetings with the regulated community; and (4) Expanding efforts to promote consensual rulemaking. So far, we have issued four rulemakings in response to the Presidential Regulatory Reform Initiative.

The first rulemaking, “Inspected and Uninspected Commercial Vessels; Removal of Obsolete and Unnecessary Regulations” (60 FR 48044, September 18, 1995), removed or revised requirements for nuclear vessels, ocean incinerator ships, and ocean thermal energy conversion plant ships that the Coast Guard found to be obsolete or unnecessary.

The second rulemaking, “Adoption of Industry Standards” (61 FR 25984, May 23, 1996), made more substantial changes, removing or amending unnecessary provisions and adopting appropriate industry standards and practices in place of Coast Guard-specific requirements for vessels.

The third rulemaking, “Harmonization with International Safety Standards” (62 FR 51188, September 30, 1997), continued the Coast Guard's effort to reform its regulations by removing superfluous and outdated requirements and aligning the regulations more closely with international standards for vessels.

In the fourth rulemaking, “Review and Update of Standards for Marine Equipment” (73 FR 65156, October 31, 2008), the Coast Guard amended its rules relating to standards for marine equipment and updated the incorporation of references to national and international industry consensus standards for inspected commercial vessels in those rules.

With this proposed rulemaking, the Coast Guard is completing this set of responses to the 1995 Presidential Regulatory Reform Initiative by reviewing the existing fire protection, detection, and extinguishing equipment requirements and proposing revisions to ensure Coast Guard regulations are clear, contain additional flexibility through alternative compliance options, and reflect current industry practice, industry consensus standards, and modern technology.

Subsequent to the 1995 Presidential Regulatory Reform Initiative, Executive Order (EO) 12866 (“Regulatory Planning and Review”) was amended by EO 13563 (“Improving Regulation and Regulatory Review”) to direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). EO 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility.

We are also proposing to incorporate voluntary consensus standards instead of Coast Guard specific standards as directed by the Office of Management and Budget, Circular A-119, “Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities.” See Section VII. L. Technical Standards for the list of voluntary consensus standards used in this rulemaking.

A. Equipment-Specific Revisions

The Coast Guard fire protection, detection, and extinguishing equipment regulations addressed in this NPRM have not been updated substantially since 1952 and do not reflect the latest industry practices or technologies. In this rulemaking, the Coast Guard proposes specific changes that address advances in fire protection, detection, and extinguishing equipment technologies. The proposed amendments mainly cover two types of equipment: fire detection and alarm systems, and fire extinguishers. Additionally, the Coast Guard proposes revisions to its fire protection equipment approval processes that would allow manufacturers to obtain Coast Guard approval for equipment that would satisfy the applicable requirements in each of the affected

subchapters (See Table 1 for list of affected subchapters). The Coast Guard also proposes some less significant revisions affecting other categories of fire protection equipment, including spanner wrenches, non-metallic piping, and sprinkler systems.

B. Harmonize Coast Guard Regulations with National and International Industry Consensus Standards

The Coast Guard proposes to replace specific fire protection, detection, and extinguishing equipment requirements by incorporation of national and international industry consensus standards, which would align Coast Guard regulations with current industry practices.

1. International Industry Consensus Standards

The Coast Guard proposes to incorporate into the affected subparts international industry consensus standards established by the IMO. International industry consensus standards are established by the Parties, including the United States, to SOLAS, working through the IMO. The United States, using input from multiple public meetings, actively participated in the negotiations that led to the development of these international industry consensus standards for fire protection, detection, and extinguishing equipment (IMO standards). The IMO standards addressed by this rulemaking implement the requirements of Chapter II-2 (fire protection, fire detection, and fire extinguishment) of SOLAS by providing detailed design, testing, installation, and maintenance requirements for fire protection, detection, and extinguishing equipment. The Coast Guard has proposed to incorporate the IMO standards into our regulations to fulfill our obligations under SOLAS, and because they provide best practices and modern design standards developed by the international community. Additionally, these provisions would provide

further efficiencies by allowing domestic vendors and vessels to use one market for delivery and acquisition of products.

The Coast Guard also proposes to incorporate into the affected subparts an international industry consensus standard established by the International Electrotechnical Commission (IEC). The IEC is an international organization that develops and publishes consensus-based international standards for electrical, electronic, and related technologies. The Coast Guard proposes to incorporate the IEC standard for electrical components of a detection system, as this IEC standard represents the best industry standard as well as current marine industry practice for the use of these components.

2. National Industry Consensus Standards

The Coast Guard proposes to incorporate into the affected subparts national industry consensus standards by the NFPA, ASTM International (ASTM), and UL that have been approved by the American National Standards Institute (ANSI). ANSI is a private, nonprofit membership organization with members from private and public sector organizations that facilitates the development of national consensus standards. ANSI's work focuses on accrediting the standards development procedures of individual standards organizations to ensure that the standards developed represent a true consensus of private and public interests. These ANSI-accredited national industry consensus standards are developed by technical committees composed of representatives from a cross section of stakeholders affected by these standards. The Coast Guard participates in the development of these national industry consensus standards through representation in the technical committees.

V. Discussion of Proposed Rule

This proposed rule would make amendments within each of the affected subchapters within Titles 33 and 46 of the CFR for vessels, OCS facilities, deepwater ports, and MODUs. The proposed amendments address fire alarm and detection systems, fire extinguishers, and other fire protection equipment requirements, and would revise approval processes and make other administrative changes to correct errors, provide better organization, and make general clarifying changes. Parts A through E of this section discuss these proposed provisions. The discussion is divided into five major categories: A) Fire Alarm and Detection Systems, B) Fire Extinguishers, C) Other Fire Protection Equipment Requirements, D) Updates to Approval Process and Guidance for Equipment and Materials, and E) Administrative Changes. Within these categories, we divide the discussion into sub-categories. Table 2 provides a list of these categories, sub-categories and affected CFR sections. For explanation of the proposed amendments presented in Table 2, see parts A through E of this section.

Table 2 – Index of Proposed Changes and CFR Sections Affected

Categories	Sub-Categories	Affected CFR Sections
A. Fire Alarm and Detection Systems	1. Harmonization with national and international industry consensus standards	46 CFR 76.01-2; § 95.01-2; §161.002-1
	2. Optional use of detection and alarm system requirements of SOLAS and the FSS Code	46 CFR 76.27-1; §76.27-70
	3. Consolidation and revision of operation and installation requirements	46 CFR 76.05-1; §76.05-20; §76.27-5; §76.27-10; §76.27-15; §76.27-20; §76.27-25; §76.27-30; §76.27-35; §76.27-70; §76.27-80
	4. Grandfathering and 2 and ½ year Compliance Period	46 CFR 76.27-80; §76.30-1; §76.33-1; §76.35-1
	5. Sample extraction, smoke detection systems	46 CFR 76.33-20; §95.05-1; §95.05-3
	6. Changes to approval processes for detection and alarm systems	46 CFR 161.002-1; § 161.002-2; §161.002-3; §161.002-4; §161.002-6; §161.002-8; §161.002-9; §161.002-10; §161.002-12; §161.002-14; §161.002-15; §161.002-18; §161.002-19
	7. Revised requirements using guidance found in Navigation and Vessel Inspection Circular (NVIC) 7-80 for excess detection systems	33 CFR 149.403; §149.404; 46 CFR 27.203; §28.155; §34.01-5; §76.01-5; §95.01-5, §118.120; §132.340; §167.45-30; §181.120; §193.01-5
B. Fire Extinguishers	1. Ratings: UL 711 and NFPA 10: 2010	33 CFR 145.05, §145.10; §145.15; §149.405; §149.409; §149.410; 46 CFR 25.30-1; §25.30-20; §25.30-80; §27.303; §27.305; §28.160; §34.50-1; §34.50-5; §34.50-10; §34.50-80; §76.50-1; §76.50-5; §76.50-10; §76.50-20; §76.50-80; §95.01-1; §95.50-1; §95.50-5; §95.50-10; §95.50-20; §95.50-80; §108.491; §108.495; §108.496; §118.115; §118.500; §132.210; §132.220; §132.240; §132.250; §162.028-2; §162.028-3; §162.039-2; §162.039-3; §169.567; §181.500; §193.50-5; §193.50-10; §193.50-20; §193.50-80
	2. Maintenance: NFPA 10: 2010	33 CFR 145.01; §149.408; 46 CFR 25.30-10; §31.01-2; §31.10-18; §71.25-20; §91.25-7; §91.25-20; §107.235; §169.247; §176.810; §188.01-5; §189.25-20
	3. Testing: UL 8, UL 154, UL 299, UL 626, 2129	46 CFR 162.028-1; §162.028-3; §162.028-4; §162.039-1; §162.039-3; §162.039-4
	4. Approval process	46 CFR 162.028-5; §162.028-7; §162.039-5; §162.039-7
	5. Reducing and relocating of spare extinguisher requirements	46 CFR 34.50-10; §34.50-15; §76.50-10; §76.50-15; §95.50-10; §95.50-15; §108.495; §132.230; §169.567; §181.500; §193.50-15
C. Other fire protection equipment	1. Spanner wrench carriage requirements for small	46 CFR 118.310; §181.310

requirements	passenger vessels	
	2. Alternative use of two small fire hoses in place of a single hose	46 CFR 76.10-5; §76.10-10; §, §95.10-5; §95.10-10 §193.10-5; §193.10-10
	3. Limited use of non-marine fire extinguishers	46 CFR 34.50-10
	4. Amended definitions of small passenger (subchapter T) vessels	46 CFR 175.400; §177.410
	5. Clarification on the use of international standard (SOLAS) in lieu of domestic standards	46 CFR 32.56-1; §72.05-1; §92.07-1; §116.400; §177.420; §190.07-1
	6. Use of nonmetallic pipe	46 CFR 56.60-25
	7. Use of nonmetallic pipe on small passenger (subchapter T) vessels	46 CFR 182.720
	8. Sprinkler systems	46 CFR 25.30-15; §34.01-15; §34.30-1; §76.01-2; 76.25-1; §76.25-5; §76.25-10; §76.25-15; §76.25-20; §76.25-25; §76.25-30; §76.25-35; §95.01-2; §95.30-1; §108.101; §108.430; §193.01-3; §193.30-1
	9. Alternatives for Halon bottle inspection	46 CFR 147.7, §147.65
D. Updates to equipment approval process and guidance for equipment and materials	1. Acknowledgement of MRA	46 CFR 159.001-3; §159.003-1; §159.003-3; §159.003-5; §159.003-7; §159.003-9
	2. Approval Series	46 CFR 162.027-1; §162.027-2; §162.027-3; §162.027-4; §162.163-1; §162.163-2; §162.163-3; §162.163-4; §164.006-6; §164.007-10; §164.008-8; §164.009-26; §164.012-16 §164.105-1; §164.105-2; §164.105-3; §164.105-4; §164.106-1; §164.106-2; §164.106-3; §164.106-4; §164.107-1; §164.107-2; §164.107-3; §164.107-4; §164.108-1; §164.108-2; §164.108-3; §164.108-4; §164.109-1; §164.109-2; §164.109-3; §164.109-4; §164.110-1; §164.110-2; §164.110-3; §164.110-4; §164.111-1; §164.111-2; §164.111-3; §164.111-4; §164.112-1; §164.112-2; §164.112-3; §164.112-4; §164.117-1; §164.117-2; §164.117-3; §164.117-4; §164.136-1; §164.136-2; §164.136-3; §164.136-4; §164.137-1; §164.137-2; §164.137-3; §164.137-4; §164.138-1; §164.138-2; §164.138-3; §164.138-4; §164.139-1; §164.139-2; §164.139-3; §164.139-4; §164.141-1; §164.141-2; §164.141-3; §164.141-4; §164.142-1; §164.142-2; §164.142-3; §164.142-4; §164.144-1; §164.144-2; §164.144-3; §164.144-4; §164.146-1; §164.146-2; §164.146-3; §164.146-4; §164.201-1; §164.201-2; §164.201-3; §164.201-4; §164.207-1; §164.207-2; §164.207-3; §164.207-4
	3. FTP Code tests laboratories ISO/IEC 17025 certified	46 CFR 159.010-3
E. Administrative changes	1. Correcting metric conversions	46 CFR 114.400; §118.410; §175.400; §181.410
	2. Moving regulations from 46 CFR 181.40 to	46 CFR 181.400; §181.405

	181.405	
	3. Addition of omitted statutory authority citation	33 CFR part 149
	4. Editorial changes and general clarifying changes.	46 CFR 28.325; §28.830; §34.01-5; §34.50-15; §56.60-25; §76.05-1; §76.05-5; §76.05-10; §76.05-20; §76.10-5; §76.10-10; §76.27-30; §76.27-90; §76.30-1; §76.30-5; §76.30-10; §76.30-15; §76.30-90; §76.33-1; §76.33-5; §76.33-10; §76.33-15; §76.33-20; §76.33-90; §76.35-1; §76.35-5; §76.35-10; §76.35-15; §76.50-20; §78.47-13; §92.07-1; §95.01-5; §95.05-1; §95.10-5; §95.10-10; §95.30-1; §108.405; §113.05-7; §116-440; §118.310; §118.400; §122.612; §147.65; §169.609; §169.236; §169.563; §169.629; §169.672; §169.703; §176.810; §177.410; §185.612; §189.25-20; §190.07-1; §193.10-5; §193.10-10; §193.50-1; §193.50-90

A. Fire Alarm and Detection Systems

In 46 CFR parts 76 (Fire protection equipment in subchapter H), 95 (Fire protection equipment in subchapter I), and 161 (Electrical equipment in subchapter Q), we propose updated requirements for fire alarm and detection systems. We propose harmonizing our operation and installation requirements with current national and international industry consensus standards to provide the regulated community with up-to-date requirements that better match the current state of the detection and alarm industry. Additionally, we propose reorganizing existing requirements and renaming some subparts or sections to better reflect any updates, reorganizations, or the revised or existing content of the sections for clarity and ease of reading.

1. Harmonization with National and International Industry Consensus Standards

We propose to harmonize 46 CFR parts 76, 95, and 161 with the below listed national and international industry consensus standards. We discuss the effects of harmonizing Coast Guard regulations with these standards in the sections A.2 through A.7.

- Consolidated Text of the International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1988: Article, Annexes and Certificates. (Incorporating all Amendments in Effect from July 1, 2009) (“SOLAS”). SOLAS provides requirements for vessel construction, arrangement, and management on international voyages. With respect to fire detection and alarm systems, Chapter II-2, Regulation 7 identifies the general requirements for fire alarm systems on vessels.

- International Code for Fire Safety Systems, 2007 Edition, (“FSS Code”). The FSS Code provides international standards of specific engineering specifications for fire safety systems required by Chapter II-2 of SOLAS, as amended. The FSS Code details requirements for design, installation, and testing of fire protection and detection systems on vessels.
- International Standard IEC 60092-504, Electrical Installations in Ships – Part 504: Special Features – Control and Instrumentation, Third Edition 2001-03 (“IEC 60092-504”). This international standard is intended to ensure safety in the design, selection, installation, maintenance and use of electrical equipment for the generation, storage, distribution, and utilization of electrical energy for all purposes in seagoing ships. This standard deals with electrical, electronic, and programmable equipment intended for control, monitoring, alarm, and protection systems for use in ships.
- American National Standard for Radiant Energy-Sensing Fire Detectors for Automatic Fire Alarm Signaling, February 2004 (“ANSI FM 3260”). This standard sets operational, durability, and other specific, technical performance requirements for radiant energy-sensing fire detectors used for automatic fire alarm signaling for the protection of occupants, spaces, structures, areas, or objects.
- NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition. This standard covers the design and installation of sprinkler systems.
- NFPA 72, National Fire Alarm and Signaling Code, 2010 Edition. This standard covers the application, installation, location, performance, inspection, testing, and

maintenance of fire alarm systems, supervising station alarm systems, public emergency alarm reporting systems, fire warning equipment and emergency communications systems, and their components.

- UL 38, Standard for Manually Activated Signaling Boxes for Fire Alarm Systems, 2008. This standard sets operational, durability, and other specific, technical requirements for manual signaling boxes for fire alarm systems intended for permanent installation and use in ordinary locations.
- UL 268, Standard for Smoke Detectors for Fire Protective Signaling Systems, 2009. This standard sets operational, durability, and other specific, technical requirements for smoke detectors intended to be employed in indoor locations.
- UL 464, Standard for Audible Signaling Appliances, 2009. This standard sets operational, durability, and other specific, technical requirements for electrically and electronically operated bells, buzzers, horns, and similar audible signal appliances, rated 300 volts or less, for general or fire-protective signaling service and intended for indoor or outdoor locations.
- UL 521, Standard for Heat Detectors for Fire Protective Signaling Systems, 1999. This standard sets operational, durability, and other specific, technical requirements for heat detectors for fire protective signaling systems intended to be installed in ordinary indoor and outdoor locations.
- UL 864, Standard for Control Units and Accessories for Fire Alarm Systems, 2003. This standard sets operational, durability, and other specific, technical requirements for discrete electrical control units and accessories for fire alarm systems to be employed in accordance with numerous NFPA Standards. The

products covered by this standard are intended to be used in combination with other appliances and devices to form a commercial fire alarm system. These products provide all monitoring, control, and indicating functions of the system.

- UL 1480, Standard for Speakers for Fire Alarm, Emergency, and Commercial and Professional Use, 2003. This standard sets operational, durability, and other specific, technical requirements for speakers for indoor and/or outdoor use in dry, damp, wet, or underwater locations and are intended for fire alarm systems in accordance with the National Fire Alarm Code, NFPA 72, providing emergency voice/alarm occupant notification.
- UL 1971, Standard for Signaling Devices for the Hearing Impaired, 2002. This standard sets operational, durability, and other specific requirements for emergency-signaling devices for the hearing impaired. These devices should also be used in accordance with the requirements of the National Fire Alarm Code, NFPA 72. A signaling device, as covered by these requirements, consists of a unit assembly of electrical parts having provision for the connection of power supply circuits routed through the equipment by a prescribed scheme of circuiting.

2. Optional use of detection and alarm system requirements of SOLAS and the FSS Code

In 46 CFR subpart 76.27 (Fire Detection and Alarm System, Details), we propose to allow non-SOLAS vessels to meet either the appropriate provisions of SOLAS and the FSS Code, or existing Coast Guard regulations for the design and installation of fire detection and alarm systems. Specifically, proposed § 76.27-1(b) states that the design, manufacture, installation, and operation of fire detection and alarms systems must be in

accordance with either SOLAS Chapter II-2, Regulation 7 and the FSS Code Chapter 9, or Coast Guard requirements in § 76.27-5 through 76.27-35. Proposed § 76.27-70 sets forth the additional requirements with which SOLAS certificated U.S. ships must comply when using the regulations in SOLAS and the FSS Code. Proposed § 76.27-70 also codifies existing U.S. interpretations of SOLAS and the FSS Code and provides clarification on these regulations.

These changes are proposed to provide U.S. vessel owners and/or operators and designers greater flexibility in detection and alarm system design. The Coast Guard, using input from multiple public meetings, actively participated in the formation of these international requirements and therefore determined that these standards provide the appropriate level of safety and are broadly equivalent to existing Coast Guard regulations.

3. Consolidation and revision of operation and installation requirements

The Coast Guard proposes to change the title of 46 CFR 76.05-1 from “Fire detecting systems” to “Fire detection and alarm systems” because we are consolidating alarm and fire detection system requirements to reflect modern seamless electronic technology. Additionally, the text of this section would be edited to cover alarm systems in addition to fire detection systems.

The Coast Guard proposes to consolidate existing §§ 76.27, 76.30, 76.33, and 76.35 into one revised subpart 76.27. The existing regulations for fire detection and alarm systems have not been updated appreciably since they were first promulgated in 1965 (30 FR 16940, December 30, 1965). As such, they do not reflect developments in the field of fire detection and alarm systems used on land or in the marine environment.

These proposed changes consolidating existing regulations into and updating subpart 76.27 would also affect 46 CFR subchapters C, I, K, and T where these regulations refer to subchapter H for fire detection and alarm system requirements.

We propose changing the title of subpart 76.27 from “Electric Fire Detecting System, Details” to “Fire Detection and Alarm System, Details” to reflect the proposed consolidation of alarm and fire detection system requirements within this subpart. Along with the new text consolidating the alarm and fire detection system requirements and adapting to digital electronic technology, we propose to reorganize the sections within subpart 76.27 to better reflect the proposed and revised content of these sections.

Specifically, §76.27-1 would remain “Application”; §76.27-5 would become “General”; §76.27-10 would become “Operation”; §76.27-15 would become “Detectors”; §76.27-20 would be titled “Alarm indicators”; §76.27-25 would be titled “Power and circuitry”; §76.27-30 would be titled “Zoning”; §76.35 would be titled “Installation”; §76.27-70 would be titled “Application of SOLAS and the FSS Code”; §76.27-80 would be titled “Installations contracted for on or after November 19, 1952 and prior to [2 YEARS AND 180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE]”; and §76.27-90 would remain “Installations contracted for prior to November 15, 1952.” The proposed changes to the text of these sections are discussed in more detail below.

As introduced above, we also propose to consolidate into subpart 76.27 the requirements for electric, pneumatic, and manual fire detection and alarm systems in consideration of the seamless technology that is now being employed in the industry. The proposed rule would consolidate elements of pneumatic fire detection systems currently set forth in subpart 76.30, elements of smoke-detecting systems currently set

forth in subpart 76.33, and elements of manual alarm systems currently set forth in subpart 76.35. These proposed changes reflect the current practice of the fire protection industry, which seamlessly integrates fire detection and alarm systems together. The existing organization artificially segregates elements of fire detection and alarm systems based on the type of system. Additionally, in § 76.27-15 we propose to broaden the scope of electric fire detecting systems to cover fire detection and alarm systems responsive to heat, smoke, flame, or other fire indicators, to allow the use of these detection technologies as our regulations currently limit the detection types that can be used.

We also propose creating new § 76.27-5 to explicitly set forth the functional requirements of fire detection and alarm systems that were implicit in the existing regulations. Specifically, this section would require the fire detection and alarm system to detect fires in protected spaces, to process this information, and to signal the crew and passengers as appropriate. This proposed change would provide the purpose and functional requirements of each currently required device. By providing a performance standard we would allow industry the flexibility in meeting and obtaining safety objectives.

We also propose to move the installation requirements for approved fire detecting systems on certain existing vessels from Table 76.05-1(a) to new Table 76.27-80. Fire detection and alarm system installation requirements for new vessels would be found in proposed § 76.27-35(a), as discussed below. Existing installation requirements for approved fire extinguishing systems will remain the same; however we propose to move these requirements from Table 76.05-1(a) to new Table 76.05-20.

We propose revising § 76.27-10 to bring the requirements for operation of prescribed fire detection and alarm systems in line with modern, electronic, and commercially available units. This proposed change would remove the current restriction against an interface between a fire detection and alarm system and related safety systems, as well as ship operating systems, to exploit the efficiencies and added safety afforded by modern industry practice.

We also propose to move a portion of the former text of § 76.27-15 to new § 76.27-35. The effect of this proposed change would be to allow, in addition to heat detectors, the use of approved smoke, flame, or other detectors of fire indicators. This proposed change would take advantage of the availability of reliable smoke detectors in today's market.

We propose new § 76.27-20 to provide detailed requirements for alarm indicators, which align with modern electronic indicators that are commercially available.

We propose new § 76.27-25 to indicate that the power and circuitry of the fire detection and alarm system must comply with 46 CFR subchapter J (Electrical Engineering).

We propose renumbering existing § 76.27-5 as new § 76.27-30, and amending this section to provide flexibility to employ systems using electronically addressable detectors. When an addressable detector is triggered, the identity, type, and location of the detector can be immediately displayed at the control panel. This information is more precise and useful than that afforded by a zoned system. Thus, we propose allowing systems using addressable detectors as an alternative to zoned systems.

Proposed new § 76.27-35 would cover installation of the components of fire detection and alarm systems, and include some relevant existing text that would be moved to this new section from §§ 76.27-15 and 76.35-10. In addition, in this proposed new section, we propose to require that the spacing of certain other elements in vessels be according to spacing derived from the tests passed to obtain type approval, rather than an arbitrary maximum. This should encourage innovation and flexibility in the marine detection and alarm market.

4. Grandfathering and 2½-year Compliance Period

The Coast Guard proposes to allow existing vessels to continue to use their currently installed fire detection and alarm systems that were designed, installed, and currently operated in accordance with existing subparts 46 CFR 76.27, 76.30, 76.33, and 76.35 until the existing system is altered or a new system is added. It is Coast Guard policy to permit grandfathering and not require retrofitting unless there is a significant safety concern, and the proposed changes for fire alarm and detection systems are not aimed at addressing identified safety deficiencies but are intended to update our regulations to allow the use of the most modern technology.

Additionally, the Coast Guard proposes to allow new installations of currently approved fire detection and alarm systems designed and installed in accordance with existing subparts 76.27, 76.30, 76.33, and 76.35 for 2½ years from the date of the final rule publication. The Coast Guard proposes this 2½-year compliance period to allow manufacturers to appropriately plan and conduct testing of existing systems to the proposed new standards. Based upon our understanding of technology and industry this 2½-year compliance period would allow manufacturers ample time to design, test, and

gain approval for fire detection systems and devices. Many of the Coast Guard's rules set compliance dates based on the vessel's keel laying or contract date; this is to prevent the need to make drastic changes to vessel designs once a vessel has been contracted or construction has begun. For this rule, however, we have proposed a compliance date based on the date of installation because detection and alarm system details can easily be changed at any time without redesign of previously approved plans. For this rule, installation date would be considered the date of final inspection/acceptance of the fire detection and alarm system. We specifically seek comments on whether this timeframe is sufficient.

Existing vessels that alter existing installations or add new systems after the 2½-year compliance period, however, would be required to comply with the new rule. We propose to allow the installation of fire detection and alarm systems approved using existing Coast Guard installation requirements and approvals to remain valid for installation until 2½ years after the publication date of the final rule. New fire detection equipment approvals would need to meet the proposed new requirements as of the effective date of the final rule.

In proposed new § 76.27-80, we would consolidate the existing requirements for electrical fire detection systems found in §§ 76.27-5, 76.27-10, and 76.27-15. These requirements would only apply to installations contracted for on or after November 19, 1952 and prior to [2 YEARS AND 180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE]. The existing requirements for pneumatic fire detecting systems, smoke detecting systems, and manual alarm systems that are found in subparts 76.30, 76.33, and 76.35 would remain the same. However, we propose to narrow the applicability of each

of these subparts to installations contracted for on or after November 19, 1952 and prior to [2 YEARS AND 180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

See changes to proposed §§ 76.30-1, 76.33-1, and 76.35-1.

5. Sample extraction smoke detection systems

We propose to amend 46 CFR 95.05-1 and 95.05-3 to require that smoke detection systems installed on vessels carrying explosive cargoes comply with the provisions of Chapter 10 of the FSS Code which provides details of component, installation, control, and testing requirements for sample extraction type smoke detection systems. Currently available and approved smoke sampling systems are already designed to meet Chapter 10 of the FSS Code. For existing vessels, we would require retrofitting to comply with the revised requirements that change the requirement for smoke sample exhaust in § 76.33-20(c), within 5 years of publication of the final rule. To ensure personnel safety, we propose to revise § 76.33-20(c) to require smoke samples to exhaust to the outside; the existing regulations allow smoke samples from these systems to be discharged to the bridge or fire control station to allow the detection of fire by odor. This practice has been deemed unsafe by the Coast Guard and the international maritime industry, and has been replaced by a provision requiring smoke samples to exhaust to the outside (See IMO Resolution A.515(13), Annex 2, paragraph 1.11). Existing vessels with sample extraction type smoke detection systems that do not exhaust to the outside are a significant safety concern. Therefore, the Coast Guard would require vessels to meet the proposed requirements in § 76.33-20(c) within 5 years of the publication date of the final rule. The 5-year compliance deadline aligns with the current dry-docking interval.

Based on a review of vessel records contained in the Coast Guard's Marine Information for Safety and Law Enforcement (MISLE) database, the majority of existing vessels no longer have sample extraction type smoke detection systems or have already upgraded to the types of systems we are proposing to require in this rulemaking. Therefore, we expect this retrofitting requirement to affect only four vessels.

Additionally, we understand that the Coast Guard-approved systems currently available for new installations already meet the requirements of Chapter 10 of the FSS Code, including all necessary planning and tests, because manufacturers are already complying with the FSS Code requirements. Because available systems already meet the proposed rule's requirement to comply with the provisions of Chapter 10 of the FSS Code, we are not proposing any compliance period. We specifically seek comments on whether a compliance period is necessary and why.

6. Changes to approval processes for detection and alarm systems

Regulations in 46 CFR 161.002 specify requirements for design and manufacture of fire detection systems and devices for Coast Guard approval. The Coast Guard proposes to update these requirements and add a new approval process for individual devices (e.g., detectors, control panels, alarms, etc). The proposed updates reflect current industry practices as well as current fire detection technology. The proposed new approval process of individual devices would simplify the current Coast Guard approval process. To reflect these changes, the Coast Guard proposes to change the name of subpart 161.002 from "Fire Protective Systems" to "Fire Detection Systems."

We propose new § 161.002-2--Definitions, that would define fire detection and alarm system testing and equipment related terms that are used in this subpart. These

terms are frequently associated with fire detection systems of today and are commonly used industry terms.

We propose to remove § 161.002-3--Materials and workmanship, because suitability of materials is covered by the national industry consensus standards that we propose to incorporate by reference in §§ 161.002-4, 161.002-6, 161.002-10, and 161.002-15.

In § 161.002-4--General requirements, we propose to limit this section to the discussion of only the general requirements for fire detection systems. We also propose to move the existing provision concerning testing requirements from this section to proposed new § 161.002-6. Section 161.002-4 would retain the requirement that all fire detection systems be designed, constructed, tested, marked, and installed according to the applicable standards in 46 CFR subchapter J.

We propose to add § 161.002-6--Testing requirements, in order to outline the testing requirements for fire detection systems and devices. Paragraph (a) of this proposed section would allow manufacturers to use a Coast Guard-accepted laboratory (See 46 CFR 159.010) or an NRTL accepted by the Occupational Safety and Health Administration (OSHA) (as meeting OSHA standards in accordance with 29 CFR 1910.7) to conduct functional tests of fire detection systems and devices. OSHA maintains a listing of current NRTLs on its website at <http://www.osha.gov/dts/otpca/nrtl/index.html>. This proposed change would provide manufacturers with more flexibility and options for choosing a test laboratory. Additionally, this proposed change would make it easier for manufacturers of fire detection systems not traditionally in the marine market to gain Coast Guard approval

because only a limited number of tests would need to be conducted by a Coast Guard accepted independent laboratory. This proposed change would also allow land-based fire detection system and device manufacturers that have previously tested and listed their product with an NRTL to get Coast Guard approval without having to repeat previous tests. As explained below, we will retain the requirement that certain marine environmental tests, such as resistance damage due to vibration, be conducted by Coast Guard accepted independent laboratories.

Paragraph (b) of this proposed section would require a manufacturer, in order to have a fire detection system or device Coast Guard-approved, to test that system or device in accordance with UL 38, 268, 464, 521, 864, 1480, and 1971, and ANSI FM 3260. These are the most up-to-date industry consensus standards for fire detection system or device approvals and are already used widely by the fire detection industry. We do not expect any additional impact to the industry because industry is already voluntarily using these standards in order to achieve laboratory listing for land-based and marine products.

Paragraph (c) of this proposed section would add a reference to IEC 60092-504, which contains marine environmental testing requirements. Per 46 CFR 113.05-7, the currently required tests come from American Bureau of Shipping Rules for Building and Classing Steel Vessels (ABS) (2003) or Category ENV3 Tests of Lloyds Register Type Approval System (ENV3), Test Specification Number 1 (2002). The proposed rule would require the use of tests from IEC 60092-504, which are effectively the same as the ABS and ENV3 tests, except the IEC tests are the international industry standard. Requiring the IEC tests would harmonize our regulations with international industry

standards and current industry practice. To be Coast Guard-approved, fire detection systems or devices must meet the environmental testing parameters outlined in the newly proposed Table 161.002-6(c). In paragraph (c), the Coast Guard would require that these tests be performed only by Coast Guard accepted independent laboratories because they have demonstrated experience and expertise in conducting these tests.

Paragraph (d) of this proposed section would require that the enclosure protection requirements for control panels and remote annunciators comply with IEC 60092-504 and 46 CFR 111.01-9 of subchapter J. We do not expect these requirements to have any effect on the manufacturers of these devices. IEC 60092-504 refers to the requirements of IEC 60529 (incorporated by reference in 46 CFR 110.10-1) for enclosure protection. These enclosure protection requirements are currently optional in 46 CFR 111.01-9, and a majority of the manufacturers are using this method of enclosure protection already.

We propose to change the title of § 161.002-8 from “Automatic fire detection systems, general requirements” to “Fire detection systems, general requirements” because it covers the general requirements for all fire detection systems. We also propose to update the language in this section to better reflect the updated terminology as defined in newly proposed § 161.002-2.

We propose to change the title of § 161.002-9 from “Automatic fire detection system, power supply” to “Fire detection system, power supply” because it covers the power supply for all fire detection systems. We also propose to update the language in this section to better reflect updated terminology as defined in proposed new § 161.002-2.

We propose to change the title of § 161.002-10 from “Automatic fire detecting system control unit” to “Fire detection system control unit” to better reflect updated

terminology. We also propose changes that focus this section on the electrical requirements for fire detection system control units. Specifically, we propose requiring that control units meet the requirements of § 111.01-9, which gives details of the electrical protection needed to keep control units safe from environmental damage. We are doing this to be clear that those requirements apply to control units, as it is not clearly stated in the existing regulations. Additionally, we propose to require that the electrical supervision of circuits meet the standards of NFPA 72. Specifically, the electrical supervision circuit must be a Class A or Class X pathway as specified in NFPA 72, which is an industry standard for circuitry. The intent of this proposed change is to require that the circuit be capable of monitoring and alarming if there is a problem with the wiring of the fire detection devices within the fire detection system; other classes (B, C, D, and E) of circuitry do not do this. We also propose changing the title of this section from “Automatic fire detection system control unit” to “Fire detection system control unit” to better reflect the revised content of this section. The existing provisions in this section that address requirements for alarm performance and operation for each individual device would be relocated to proposed new §161.002-6.

We propose removing § 161.002-12--Manual fire alarm systems, because requirements for manual fire alarm systems are covered by UL 38, which would be incorporated by reference in proposed new § 161.002-6, as discussed above.

We propose removing § 161.002-14--Watchman's supervisory systems, because these types of systems are no longer used in new vessel construction. These systems have been replaced with addressable fire detection systems. There are currently no Coast Guard approved watchman's supervisory systems.

We propose to amend § 161.002-15--Sample extraction smoke detection systems to harmonize our regulations with the FSS Code, which is the current international consensus standard. This proposed change incorporates the FSS Code's requirements for the design of the sample extraction type smoke detection systems, including its control unit and power supply. We propose to allow the listing of the control unit to meet the standards of the FSS Code or UL 864. This action would not add any additional requirements, but harmonizes our regulations with current industry practice.

We propose to change the title of § 161.002-18--Method of application for type approval, to "System method of application for type approval" because we are proposing to differentiate between the fire detection system method of approval and the fire detection device method of approval. We would limit this section to the system approval requirements for fire detection systems because we propose changes to our product approval methods, which would make Coast Guard approval easier for manufacturers to obtain, and ultimately lead to a wider array of choices for owner/operators, shipyard installers, and system designers. The Coast Guard's current fire detection approval process requires that the entire system be approved as a complete system. If a component of an approved system needs to be changed or updated, a manufacturer must have the entire system re-approved. For vessel owner/operators this system-wide approval means that when a component needs to be replaced, one matching the existing system must be found. This system-wide approval also means that specialty parts manufacturers, such as those that only manufacture heat detectors, cannot enter into the marine market.

We propose to add new § 161.002-19--Device method of application for type approval, that would explain the new type-approval application method for individual fire

detection and alarm system devices. This process would allow manufacturers to get individual fire detection devices (e.g., heat detectors) approved separately from a complete system. This new type approval application process would be the same as the current process in § 161.002-18, except that it would be limited to reviewing and approving the individual devices, rather than the entire systems.

As part of that process, we would approve individual devices and accept tests of the individual devices conducted by NRTLs. NRTLs are laboratories regulated by OSHA, similar to Coast Guard regulation and oversight of Coast Guard-accepted independent laboratories, and therefore provide an equivalent level of safety to Coast Guard accepted laboratories with regards to the functional testing of individual fire detection devices. The use of NRTLs in addition to Coast Guard accepted laboratories for this purpose would allow greater flexibility in the design and installation of the fire detection and alarm systems that use individual devices, and could open the market to new and smaller manufacturers. This flexibility would result in a broader spectrum of products available that could be used to design fire detection and alarm systems that best fit each individual vessel. In addition, the safety and reliability of these fire detection and alarm systems would be enhanced by aligning our regulations with modern design and manufacturing practices as discussed above, specifically in proposed § 161.002-6.

7. Revised requirements using guidance found in Navigation and Vessel Inspection Circular (NVIC) 7-80 for excess detection systems.

The Coast Guard proposes to codify NVIC 7-80, Use of Fire Detection Systems Which Are Not Approved Under § 161.002 (available online at <http://www.uscg.mil/hq/cg5/nvic/pdf/1980/n7-80.pdf>). See proposed sections 33 CFR

149.404; 46 CFR 27.203, 28.155, 34.01-5, 76.01-5, 95.01-5, 118.120, 132.340, 167.45-30, 181.120, and 193.01-5. These provisions would allow the carriage of excess fire detection systems that meet the following criteria: non-Coast Guard approved, provided that the system's components are listed by an NRTL; designed, installed, tested, and maintained in accordance with an appropriate industry standard and the manufacturer's specific guidance; the installation conforms to the requirements of 46 CFR subchapter J (Electrical Engineering), with specific regard to the hazardous location installation regulations; the Coast Guard plan review is completed for wiring plans; and the system and components remain functional as intended. The Coast Guard has permitted the use of NRTL-approved fire detection systems as excess equipment where our regulations do not require fire-detection systems equipment because excess equipment undergoes extensive performance testing before it receives a listing by an NRTL. NRTL-approved equipment, however, may not have been tested for durability, vibration and corrosion resistance, and other properties important to marine use, and therefore cannot be substituted for required equipment. We would codify this guidance and cancel NVIC 7-80.

B. Fire Extinguishers

We propose to replace Coast Guard-unique requirements for portable and semi-portable fire extinguisher rating, maintenance, and testing and labeling with national consensus standard requirements. The proposed rule would replace: the Coast Guard weight-based rating scale for fire extinguishers with performance ratings in UL 711 "Standard for Rating and Testing of Fire Extinguishers" (7th Edition); the Coast Guard-unique maintenance procedures with a requirement to maintain fire extinguishers in

accordance with NFPA 10 “Standard for Portable Fire Extinguishers” (2010 Edition); and the Coast Guard-specific tests for marine-type approval for fire extinguishers with testing and labeling methods in five separate UL standards. The proposed rule also would reduce the required number of spare extinguishers and charges onboard classes of vessels required to carry spares.

The discussion of these proposed changes, below, covers both portable and semi-portable fire extinguishers and refers to them as "fire extinguishers" (excluding fixed fire extinguishing systems) unless specifically noted.

1. Ratings: UL 711 and NFPA 10:2010

The Coast Guard proposes to replace the Coast Guard-unique rating system set forth in 33 CFR 145.05, 46 CFR 34.50-5, 76.50-5, 95.50-5, 132.210 and 193.50-5 with the rating system in UL 711, “Standard for Rating and Testing of Fire Extinguishers” (UL ratings) to eliminate confusion caused by fire extinguishers being labeled with both the Coast Guard rating and the UL rating. UL 711 details performance testing required for rating a fire extinguisher, and its use for marking fire extinguishers would be required in 46 CFR 162.028-2 and 162.039-2 (the UL rating uses the classification of fires as set forth in NFPA 10:2010). Currently, Coast Guard regulations in §§ 162.028-4 and 162.039-4 require labeling fire extinguishers with the Coast Guard-unique rating system using an alpha-numeric designation, which is based on the weight of the extinguishing agent in the extinguisher. Coast Guard regulations also require each fire extinguisher to meet the listing and labeling requirements of the independent laboratory that tests the extinguisher for approval. Currently, all the fire extinguishers the Coast Guard has approved were tested by UL or by another laboratory using the UL ratings. Therefore, all

Coast Guard accepted independent laboratories already test and label the fire extinguishers with the UL ratings (example: 20-B:C) as well as the Coast Guard rating (example: B-II).

The Coast Guard weight-based rating system presumes that any extinguisher with 10 pounds of extinguishing agent would have less extinguishing capability than an extinguisher with 15 pounds of extinguishing agent. However, this method of rating fire extinguishers is inconsistent with the UL ratings, which use a performance-based rating system that could rate fire extinguishers with 10 or 15 pounds of extinguishing agent the same, provided they can extinguish the same test fire.

To determine if there is a correlation between the two rating systems, we used Annex H of NFPA 10: 2010 to compare the Coast Guard's weight-based rating system with the average UL ratings given to fire extinguishers with similar agent capacities. Annex H, Table H.2 identifies not only the agent capacities but the typical UL rating for an extinguisher of that type. This allowed us to identify the UL ratings that corresponded to our existing minimum weight-based requirements. We would use these corresponding UL ratings instead of the Coast Guard weight-based ratings in § 162.028-2, 162.028-3, 162.039-2, and 162.039-3.

The Coast Guard also proposes to designate fire extinguishers as semi-portable based on an overall weight of over 50 pounds rather than on the weight of the agent carried, as set forth in proposed 162.039-3(b).

In 46 CFR 76.50-20, the Coast Guard proposes to require the use of fire extinguisher hoses and nozzles suitable for reaching all areas of a protected space in consideration of the unwieldy nature of the semi-portable fire extinguishers. Although

currently approved semi-portable fire extinguishers are equipped with hoses and nozzles, we are clarifying that these must be adequate for their installed location. The Coast Guard does not intend to require that vessels replace existing properly functioning and properly installed fire extinguishers that meet the current Coast Guard weight-based requirement because they have a different UL rating than is proposed.

The proposed rule allows each class of vessel addressed in each affected subchapter to keep existing fire extinguishers aboard, provided that each fire extinguisher is properly maintained. See proposed sections 33 CFR 145.15; and 149.410; and 46 CFR 25.30-1; 25.30-80; 34.50-1; 34.50-80; 76.50-1; 95.01-1; 95.50-1; 95.50-80; 108.491; 118.115; 132.250; and 193.50-80. When a fire extinguisher is replaced, however, the replacement fire extinguisher would have to meet the proposed new requirements.

We believe that eliminating our existing Coast Guard-unique rating system would enhance maritime safety by aligning our requirements for extinguishing capacities with the accepted national industry standard to ensure that the appropriate sizes and types of fire extinguishers are used. Further, these proposed changes would simplify the labeling requirements for manufacturers and limit confusion when purchasing fire extinguishers for marine use.

Notably, this proposed change from the Coast Guard-unique ratings to the UL ratings would completely eliminate carbon dioxide (CO₂) semi-portable fire extinguishers as an option for semi-portable fire extinguishers required in machinery spaces. Under the current regulations, large CO₂ fire extinguishers with a capacity of 100 pounds of CO₂ (B-V semi-portable fire extinguishers) satisfy the Coast Guard rating requirements for machinery spaces, but these types of fire extinguishers cannot meet the UL testing

standards to receive a high enough rating to be used in these locations. Although we are not proposing to require replacing these existing installations because we do not have casualty data to justify the economic burden to industry of replacing operable extinguishers, we note that large non-CO₂ extinguishers are cheaper than these large CO₂ extinguishers, and encourage vessel owners/operators to replace these CO₂ extinguishers. Replacement extinguishers would have to comply with the requirements as proposed in 33 CFR 145.10 and 149.409; and 46 CFR 25.30-20; 27.303; 27.305; 28.160; 34.50-10; 76.50-10; 95.50-10; 95.50-20; 108.495; 108.496; 118.500; 132.220; 132.240; 169.567; 181.500; 193.50-10; and 193.50-20.

2. Maintenance: NFPA 10: 2010

We propose to require that vessel owners and/or operators ensure that inspection, maintenance and recharging of fire extinguishers are carried out in accordance with NFPA 10: 2010. We propose the use of NFPA 10: 2010 maintenance standards because they provide more complete maintenance requirements as compared with current Coast Guard fire extinguisher maintenance requirements in 33 CFR 145.01; and 149.408; and 46 CFR 25.30-10; 31.10-18; 71.25-20; 91.25-20; 107.235; 169.247; 176.810; and 189.25-20. NFPA 10 provides details for the selection, installation, inspection, maintenance, and testing of fire extinguishers. Specifically, NFPA details how often and what items to check on an extinguisher, when to repair or replace extinguishers, and provides details for refilling or recharging extinguishers as needed.

NFPA 10 distinguishes between monthly inspections, which are simple visual checks of the fire extinguisher, and annual maintenance, which includes thorough inspection of the condition of the fire extinguisher and inspection or replacement of

components. NFPA 10 requires that the annual maintenance and recharging of fire extinguishers be done by certified persons (see the next paragraph), while monthly inspections may be conducted by personnel (such as crew) who are not required to be certified. On a vessel, for example, this means that monthly inspections could be completed by the owner/operator, person-in-charge, master, or a designated member of the crew. However, annual maintenance would need to be conducted by a certified person. NFPA 10 does not clearly identify certification standards and leaves approval to local Authorities Having Jurisdiction (AHJ), therefore, the Coast Guard is proposing to accept any certification by an AHJ. We propose incorporating NFPA 10: 2010 by reference into each affected subchapter for maintenance requirements for fire extinguishers. See proposed sections 33 CFR 145.01 and 149.408; and 46 CFR 25.30-10; 31.10-18; 71.25-20; 91.25-20; 107.235; 169.247; 176.810; 188.01-05; and 189.25-20.

We propose to allow the annual maintenance of non-rechargeable or non-refillable fire extinguishers to be conducted by a certified person, owner/operator, person-in-charge, or a designated member of the crew. This is because NFPA 10 directs that such extinguishers found to be deficient be removed from service, and this type of review and replacement is easily managed by personnel appointed by the vessel owner/operator.

NFPA 10 has included the standard requirements for the use of certified servicing agents since August 17, 2008. This standard is widely adopted as the national standard for maintenance and repair of fire extinguishers. Therefore, maintenance conducted by certified companies is generally conducted in accordance with NFPA 10 guidelines by certified personnel. Since most fire extinguisher servicing companies serve the marine market in addition to their land-based clientele, we do not anticipate that vessel

owner/operators would have difficulty finding an appropriately certified company.

Additionally, a vessel owner/operator could use an appropriately certified employee to conduct annual maintenance of fire extinguishers.

3. Testing: UL 8, UL 154, UL 299, UL 626, UL 2129

The requirements for Coast Guard approval of portable and semi-portable fire extinguishers are found in 46 CFR 162.028 and 162.039. These subparts are similar in structure, and we propose to make identical changes in both subparts to remove the existing Coast Guard-unique requirements and, in their place, require conformity with the industry standards for testing and labeling fire extinguishers.

We propose to require the use of five UL standards for the testing and labeling of fire extinguishers instead of the current Coast Guard-specific testing requirements in §§ 162.028-3 and 162.039-3. The five UL manufacturing standards that would be incorporated by reference into §§ 162.028-1 and 162.039-1 are: (1) UL 8, Standard for Foam Fire Extinguishers; (2) UL 154, Standard for Carbon-Dioxide Fire Extinguishers; (3) UL 299, Standard for Dry Chemical Fire Extinguishers; (4) UL 626, Standard for 2 1/2-Gallon Stored Pressure, Water-Type Fire Extinguishers; and (5) UL 2129, Standard for Halocarbon Agent Fire Extinguishers. Each of these UL standards gives specific technical requirements for construction, performance testing, packaging, and marking of the specific type of extinguisher.

The current requirements in §§ 162.028-3 and 162.039-3 are duplicative of the UL standards and, as discussed above, fire extinguishers are already being tested to these UL standards by Coast Guard accepted independent laboratories. This proposed change

would eliminate the duplicative Coast Guard requirements by replacing them with the requirement to use the UL standards, and reflect current industry practice.

4. Approval process

We propose changes to §§ 162.028-5 and 162.039-5 to list our website at <http://cgmix.uscg.mil> as the place to find the list of laboratories recognized by the Coast Guard to conduct testing of fire extinguishers. Currently, we list the recognized laboratories in the regulations. Providing a website in the regulations, rather than the list itself, would provide continually updated information concerning recognized independent laboratories.

We also propose changes to §§ 162.028-7 and 162.039-7 to more clearly reflect the procedure that fire extinguisher manufacturers must use to request and obtain Coast Guard approval. The proposed change would provide for a Coast Guard-recognized independent laboratory to approve the extinguishers on behalf of the Coast Guard as detailed in a Memorandum of Understanding (available in the docket as described under ADDRESSES above) required by existing §159.010-7 between the Coast Guard and the laboratory.

5. Reducing and relocating spare portable extinguisher requirements

We propose to reduce the number of spare portable fire extinguishers required and add this number to the tables that indicate the location and number of required extinguishers in 46 CFR 34.50-10(a), 76.50-10(a), 95.50-10(a), 108.495, 169.567(a), and 181.500(b).

Spare fire extinguishers are not required to be kept in open locations for use during firefighting and are, therefore, not intended to be used as “back-up” for when an

extinguisher required for a space does not work or is expended during firefighting activities. Spare extinguishers are carried on board to replace those taken out of service in the case of damage, low charge, or in the infrequent case they were expended in firefighting activities prior to returning to port. Given the relative ease of purchasing Coast Guard approved fire extinguishers -- they can be purchased at nearly any large home improvement or even hardware store -- and the speed of shipping Coast Guard approved extinguishers within the U.S., the carriage of a large number of spares is unnecessary for vessels on domestic routes.

Additionally, a reduction in the number of spares required is warranted by the proposed, enhanced maintenance requirements that would make extinguishers more reliable, further reducing the need to carry a large number of spare extinguishers. Therefore, the Coast Guard proposes to reduce the number of spares required by reducing the percentage of spares specified in 46 CFR 34.50-10(a), 76.50-10(a), 95.50-10(a), 108.495, 169.567(a), and 181.500(b), and deleting the following sections: 46 CFR 34.50-15, 76.50-15, 95.50-15, 132.230 and 193.50-15. We seek specific comments on the appropriate percentage of spares necessary on domestic vessels. We propose to reduce the percentage from 50 percent to as low as 10 percent, depending on the comments received. In comments submitted to the docket, please indicate the recommended percentage (ranging from 50 to 10 percent), and provide a brief explanation or justification for why that percentage is the most appropriate for the new standard. Ships on international voyages subject to SOLAS, including cruise ships, would still be required to comply with SOLAS requirements, 100 percent spare charges for the first 10

extinguishers, then 50 percent for the remaining extinguishers (SOLAS Chapter II-2, Regulation 10.3.3).

The proposed change to add the number of required spares to existing tables would make our regulations more concise and readable. These existing tables indicate the required number and location of all extinguishers onboard, but do not include the number of spare extinguishers required. These changes would allow the tables to cover all of the required extinguishers.

C. Other Fire Protection Equipment Requirements

1. Spanner wrench carriage requirement for small passenger vessels

We propose to require in 46 CFR 118.310 and 181.310, that small passenger vessels carry spanner wrenches for fire hydrants that use 1.5-inch diameter hoses. Spanner wrenches are required to attach and detach fire hoses from the fire main system during fire emergencies, allowing them to be deployed or moved as necessary. In the September 30, 1997 final rule, “Small Passenger Vessel Inspection and Certification”¹ that established firefighting requirements for 46 CFR subchapter K and T vessels, spanner wrench requirements for 1.5-inch diameter hose stations were inadvertently omitted for small passenger vessels. All other affected subchapters include requirements for spanner wrenches to accompany fire hydrants. However, because they are generally accepted as standard firefighting equipment to accompany 1.5-inch diameter hose connections, marine inspectors report that most if not all small passenger vessels include this vital safety equipment already. To be consistent with requirements for hoses of this

¹62 FR 51326, which amended 61 FR 982.

size on other classes of inspected vessels, we propose to require that spanner wrenches be placed at all fire hydrants serving 1.5-inch diameter hoses.

2. Alternative use of two small fire hoses in place of a single hose.

In 46 CFR 76.10-5; 76.10-10; 95.10-5; 95.10-10; 193.10-5; and 193.10-10, we propose to allow two 1.5-inch diameter fire hoses instead of one 2.5-inch diameter fire hose to be used at external locations on vessels. We propose this change to increase crew safety and enhance firefighting capabilities on board the applicable vessels. A 2.5-inch diameter fire hose could be unwieldy and unsafe if crewmembers have not been trained or drilled in working with such a large-sized hose. Allowing the use of two 1.5-inch diameter hoses would alleviate the physical difficulties of moving the hose during an emergency, and would reduce additional training requirements for crew members. Generally, two 1.5-inch diameter hoses should deliver equivalent volumes of water and have similar ranges to a 2.5-inch diameter hose. This allowance would not preclude the use or carriage of a 2.5-inch diameter hose if desired by the vessel owner/operator.

3. Limited use of land-based fire extinguishers.

We propose in 46 CFR 34.50-10 that portable fire extinguishers brought onto unmanned barges during cargo transfer or operation of barge machinery or boilers, as required by Table 34.50-10(a), need not be Coast Guard-approved. Such extinguishers would, however, need to be listed and labeled by an NRTL. Each NRTL for CO₂ fire extinguishers (there are currently three identified by OSHA: FM Approvals LLC, Intertek Testing Services NA, Inc. and Southwest Research Institute), tests to the same standard, UL 711, Rating and Fire Testing of Fire Extinguishers.

This proposed change would codify and expand the policy issued by NVIC 13-86,

Use of Underwriters Laboratory Listed Fire Extinguishers (available online at <http://www.uscg.mil/hq/cg5/nvic/pdf/1986/n13-86.pdf>), which allows non-Coast Guard approved fire extinguishers, but only those that are UL-approved, to be used on unmanned barges. We have permitted the use of non-Coast Guard approved, UL-approved extinguishers on unmanned barges because these vessels are not required to carry portable fire extinguishers while in transit, and such extinguishers need not be tested for marine environmental conditions, which is the purpose of the Coast Guard approval. Fire extinguishers are only required during cargo operations (see footnote 13 to Table 34.50-10(a)). The use of extinguishers that are brought aboard an unmanned barge during loading reduces administrative costs for the barge owner because barges would not be required to purchase fire extinguishers to be permanently mounted on the barges, nor would they need to be inspected monthly or serviced annually. As an alternative, we would allow unmanned barge owners and operators who choose to carry fire extinguishers onboard a greater selection of fire extinguishers by not limiting selection to UL-approved extinguishers. This proposed change would supersede NVIC 13-86, which would be canceled.

4. Amended definitions for small passenger (subchapter T) vessels.

We propose to clarify the fire detection requirements on small passenger vessels constructed with general purpose resin. Commandant (CG-ENG-4) has received numerous requests for clarification of the requirements in 46 CFR 177.410(c)(3) from Officers in Charge, Marine Inspection (OCMIs) throughout the country. Through these requests, we learned that the requirements are confusing to marine inspectors as well as vessel owners, operators and designers. The existing regulation at § 177.410(c)(3) gives

two broad examples of isolated spaces (voids and storage lockers), and two examples of ignition sources (electrical equipment and piping for a dry exhaust system). We propose to more clearly and restrictively define these two terms in the list of definitions found at § 175.400.

The proposed changes are not intended to fundamentally alter the requirements; specifically, we do not intend for an increase in the required installations. Instead, the proposed changes are meant to better explain the current intent of the regulations to limit the locations that require detection systems to spaces that are not smoke tight and infrequently visited by the crew during operations, and that contain anticipated sources of ignition dangers.

5. Clarification on the use of international standards (SOLAS) in lieu of domestic standards.

The proposed changes to 46 CFR 32.56-1; 72.05-1; 92.07-1; 116.400; 177.420; and 190.07-1 would allow vessel designers to use the U.S. or SOLAS requirements for structural fire protection for domestic vessels. We propose these changes to clearly indicate that vessels meeting the structural fire-protection requirements of Chapter II-2 of SOLAS are deemed to have met the structural fire-protection requirements found in the subchapter under which the vessel is inspected. Currently, in each of the affected subchapters, the requirements allow ships with SOLAS certificates (those meeting the SOLAS requirements) to be considered equivalent. The proposed change is intended to allow any U.S. flag vessel to be built to the requirements of SOLAS Chapter II-2 even if it is not certificated to SOLAS. The use of SOLAS Chapter II-2 as a design basis for structural fire protection allows greater flexibility in design, and because it is difficult to

retrofit vessels to meet structural fire-protection requirements, it would allow vessels built for domestic trade to be more easily converted for SOLAS trade and subsequently certificated as SOLAS ships.

6. Use of non-metallic pipe

We propose changes to 46 CFR 56.60-25(a)(3) that would allow the use of short sections of unapproved pipe, 30 inches or less in length, in non-vital systems, provided the pipe is contained in one compartment. Section 56.60-25 contains the requirements for the use of non-metallic pipe on vessels. Currently, § 56.60-25(a) requires that all piping, except that used on open decks, or in cofferdams, voids, and ducts, must meet low flame spread requirements. This requirement is intended to limit the flame spread of pipe in enclosed spaces, such as accommodations, machinery spaces, and control spaces, as well as to prevent the passage of flame from one compartment to another. In § 56.60-25(a), the Coast Guard also limits the use of non-metallic pipes in non-vital systems unless the pipe meets fire endurance requirements (which tests the strength of the pipe during and after a fire) found in IMO Resolution A.753(18), Guidelines for the Application of Plastic Pipes on Ships. The Coast Guard's primary concern when plastic pipe is used on inspected vessels, OCS facilities, and MODUs is the spread of flame, and the Coast Guard's secondary concern is the integrity of the vital piping systems. We propose the allowance of short runs of plastic pipe (30 inches or less) on non-vital systems contained within a single compartment without any Coast Guard approval. Plastic pipe is easier to maintain and cheaper, and this use would not compromise the Coast Guard's safety goals. This allowance is envisioned to be employed primarily for use in sanitary service areas, such as toilet, sink and shower supply, and drain lines in

accommodation spaces.

7. Use of non-metallic pipe on small passenger (subchapter T) vessels.

Section 46 CFR 182.720, prohibits the use of non-metallic piping in vital systems for small passenger vessels regulated under 46 CFR subchapter T. The intent of this prohibition is to make the “construction material requirements for vital system piping consistent for all vessels regardless of size or passenger capacity.” See “Small Passenger Vessel Inspection and Certification;” Supplemental Notice of Proposed Rulemaking (59 FR 1994, January 13, 1994). The rulemaking implementing this prohibition (See 61 FR 864, January 10, 1996) aligned the requirements for non-metallic piping with requirements for other vessels at the time without directing users to refer to 46 CFR part 56 to find the requirements for non-metallic pipe. All other inspected vessels, including passenger vessels regulated under 46 CFR subchapters H and K, are required to use the requirements found in § 56.60-25 for non-metallic pipe. Section 56.60-25 also incorporates IMO Resolution A.753(18), which allows specially tested and approved non-metallic pipe to be used in limited applications for vital systems. Because subchapter T does not refer the reader to § 56.60-25, and was not updated to mirror the requirements in § 56.60-25, the current regulations in subchapter T are more restrictive than those allowed for other classes of vessels. Our proposed changes to § 182.720 would allow this class of small passenger vessels to use the requirements of § 56.60-25, including the proposed changes to this section discussed above, as an alternative to those prescribed in subchapter T.

8. Sprinkler systems

We propose to remove the Coast Guard-unique design and installation

requirements for sprinkler systems currently found in 46 CFR subchapter H, §§ 76.25-5 through 76.25-35, erroneously left in place by a previous rulemaking. This proposed change would make it clear that sprinkler systems must be designed and installed in accordance with § 76.25-1, which requires that sprinkler systems meet the requirements of NFPA 13. In 1997, we first incorporated by reference and required the use of NFPA 13 in § 76.25-1—Final Rule, “Harmonization with International Safety Standards” (62 FR 51188, September 30, 1997). In that rulemaking, we adopted NFPA 13 to replace the Coast Guard-unique requirements for sprinkler systems, and §§ 76.25-5 through 76.25-35 should have been deleted, but were not.

Additionally, in § 76.01-2 we propose to update the version of NFPA 13 incorporated by reference from the 1996 edition to the most current 2010 edition. We would also make conforming amendments in 46 CFR subchapters D (§ 34.01-15), I (§ 95.01-2), I-A (§ 108.101), K (§ 114.600) and U (§ 193.01-3).

The NFPA made one substantial change to NFPA 13, in Chapter 25, Marine Systems, between the 1996 and 2010 editions, to require that marine sprinkler systems be designed and installed to be fully operational without a reduction in system performance both when the vessel is upright, and inclined at the angles of inclination specified in § 58.01-40, aligning with current industry practice.

Further, we propose to specify in § 76.25-1 that Chapter 25 of NFPA 13: 2010 is to be used for the design and installation of sprinkler systems. Our current regulations do not direct the reader to Chapter 25; we propose to clearly require system designers and installers to use Chapter 25. We would also make conforming amendments in 46 CFR subchapters D (§ 34.30-1), I (§ 95.30-1), I-A (§ 108.430), K (§ 114.439) and U (§ 193.30-

1).

We also propose in 46 CFR 25.30-15 to require automatic sprinkler systems installed in uninspected vessels to be designed and installed in accordance with the requirements of NFPA 13. Such automatic sprinkler systems are an alternative to the CO₂ systems currently addressed in § 25.30-15.

9. Alternatives for Halon bottle inspection

We propose to amend 46 CFR 147.65 to establish an alternative method of periodic inspection and testing requirements for Halon 1301 fire extinguishing systems. Currently, under § 147.65, cylinders storing Halon 1301 must be emptied and hydrostatically tested every 12 years. Also, cylinders discharged more than 5 years after the previous testing must be retested before refilling. The international ban on the production of Halon 1301 requires carefully controlled reclamation and collection of Halon 1301. This makes emptying and refilling a Halon 1301 cylinder expensive and impractical for many vessel owners. As an alternative to emptying and refilling procedures, NVIC 3-95, Periodic Inspection and Testing of Fixed Halon Fire Fighting Equipment Aboard Merchant Vessels (available online at <http://www.uscg.mil/hq/cg5/nvic/pdf/1995/n3-95.pdf>), provides for visual exams of halon-storage bottles. We propose to codify this policy of providing a visual exam alternative by incorporating by reference the Compressed Gas Association Pamphlet CG-6, Standards for Visual Inspection of Steel Compressed Gas Cylinders, 10th edition, an industry standard that identifies safe and effective methods of conducting visual exams in § 147.7. The proposed regulations would supersede the guidance in NVIC 3-95, which would be canceled.

D. Updates to Approval Process and Guidance for Equipment and Materials

Certain types of lifesaving, firefighting, navigation, and environmental protection equipment and materials are required to be Coast Guard approved if they are to be used on vessels inspected by the Coast Guard. While the regulations for vessels and offshore installations found in Titles 33 and 46 of the CFR focus on requirements for carrying and using this equipment and materials, subchapter Q contains the Coast Guard approval requirements for them. Subchapter Q is divided into subparts that each address a specific material or piece of equipment. The number of each subpart is commonly referred to as an approval series; for example, subpart 164.141 is the approval series for plastic pipes, and the approval series forms a part of each approval number.

The Coast Guard does not test equipment and materials for approval, but rather our regulations specify the required test methods and minimum performance criteria for approval. Once a product manufacturer can provide proper documentation to indicate that the product meets the requirements for approval, the Coast Guard issues a Certificate of Approval (COA) for the product that clearly identifies the product and its approved use. The COA includes the “approval number,” such as 164.141/XXX, where the first portion of the number is the product’s approval series (for example subpart 164.141 for plastic pipes) and XXX would be a unique number specific to that product. To ensure that product testing is conducted by an impartial and qualified entity, the testing must be performed by a Coast Guard-accepted independent laboratory. Laboratories must apply to the Coast Guard to become a Coast Guard-accepted independent laboratory, and are subject to continued review and oversight by the Coast Guard to ensure they continue to meet the detailed requirements found at § 159.010-3.

The Coast Guard has traditionally numbered its approval series, and the corresponding subparts in subchapter Q, according to whether the equipment addressed in the subpart is approved for use on vessels on coastwise routes and other non-international voyages, sometimes called “domestic vessels,” or for use on vessels on international voyages and therefore subject to SOLAS, which are sometimes called “SOLAS ships.” Subparts/series with a “0” after the decimal (for example, subpart 164.012) generally apply to equipment or materials approved for use on domestic vessels, and subparts with “1” after the decimal (for example, subpart 164.112) generally apply to equipment or materials approved as meeting the SOLAS requirements for use on SOLAS ships.

In this Notice of Proposed Rulemaking (NPRM), we propose to make changes to the requirements for product approval by allowing the approval of certain products by other nations’ approval authorities under Mutual Recognition Agreements, by codifying new approval series for approval of products required for SOLAS ships, and by updating the requirements of existing series to meet the current industry practice.

1. Mutual Recognition Agreements (MRA)

In 46 CFR part 159, we propose to create subpart 159.003, titled Approvals Under Mutual Recognition Agreements, to codify an alternate path to obtaining Coast Guard approval of equipment through an established MRA. An MRA for product approvals is an agreement between the U.S. and another nation or group of nations, such as the European Union, to recognize and accept approvals issued by nations signatory to the MRA (or their appointed representatives) for use on U.S. inspected vessels. The products receive a Coast Guard approval number issued by the other nations’ approving authority. Because each nation that is party to the MRA has its own regulations and interpretations

of the commonly applicable international standards, each MRA identifies the specific equipment covered under that MRA, which has been determined to meet equivalent approval and conformity assessment standards.

The ability to obtain Coast Guard approval for specified equipment and materials from certain foreign approval authorities through an established MRA offers manufacturers the ability to receive both Coast Guard and another nation's approvals in a single process. This reduces administrative and testing costs, since without the MRA manufacturers must submit approval requests to each nation individually. Each nation to which the manufacturer applies can have different testing requirements and approval procedures, sometimes meaning similar tests need to be repeated because a testing laboratory is accepted by one nation and not another, or that similar tests need to be performed to meet multiple variations in nations' requirements. With an MRA in place, a manufacturer need only go through the approval process with one party, and thereby gain approval from the other parties of the MRA, thereby reducing duplicative testing and administrative costs.

These proposed rules include broad language to implement the MRA concept for approval of equipment and materials under 46 CFR subchapter Q. The currently existing MRAs covered by Change 1 (CH-1) to NVIC 08-04, Guide to Marine Equipment Approvals Covered by U.S.- European Community (US-EC) MRA & By U.S.-European Economic Area-European Free Trade Association (US-EEA EFTA) MRA (available online at <http://www.uscg.mil/hq/cg5/nvic/pdf/2004/08-04change1.pdf>), cover a broad range of marine products, including fire protection equipment. The proposed rules would apply to all equipment approval series covered by any implemented MRA. There are

currently two MRAs to which the U.S. is a party: (1) U.S./EC MRA, signed on February 27, 2004, and (2) U.S./EEA-EFTA MRA, signed on October 17, 2005. Under these two MRAs, a manufacturer may obtain Coast Guard approval for items identified in the MRA from an EC or EEA-EFTA “Notified Body.” Conversely, a European approval and wheelmark (a unique mark given to products approved under the European Marine Equipment Directive in the EC and EEA-EFTA countries) for the product may be issued by the Coast Guard.

In the proposed § 159.003-1, we state the purpose of the proposed new subpart is to implement MRAs. In proposed §159.003-3, we clearly state that products approved and given Coast Guard approval numbers by other nations under the MRA guidelines are to be considered approved and may be used in any location that requires a Coast Guard-approved product. We specify the process for obtaining mutual approval from the Coast Guard for other nations in an MRA in proposed §§ 159.003-5 and 159.003-7. Proposed § 159.003-9 identifies the location of a list of products approved under current MRAs. Finally, we propose to add definitions related to this topic in §159.001-3.

2. Approval series

We propose to codify the standards and procedures currently used to obtain Coast Guard approval for fire protection equipment and components required on SOLAS ships in 46 CFR subchapter Q. We propose to create new subparts 164.105 through 164.207 to correspond to the product approval series numbers as identified in Table 3. The proposed new subparts would require testing the product in accordance with the IMO 2010 Fire Test Procedures Code (FTP Code), which entered into force internationally on July 1, 2012. The 2010 FTP Code provides guidelines for testing and approving fire protection

materials for use on SOLAS ships, and includes tests for non-combustibility, smoke and toxicity generation, flame spread, and fire endurance evaluation. While the Coast Guard does have regulations in place for testing and approving some of these products for domestic vessels, SOLAS requires that the products be tested using the FTP Code standards and approved by a vessel's flag state administration. This means that U.S.-flagged vessels with SOLAS certificates must use products that have Coast Guard approval to the SOLAS/FTP Code requirements. Therefore, we propose the new approval series under which manufacturers may obtain Coast Guard approval, and U.S. vessels may use these approved products under the corresponding approval series to satisfy SOLAS requirements. Table 3 contains a list of the proposed new subparts and approval series numbers; fire protection equipment or material product name; and type of FTP Code test required for Coast Guard approval.

Table 3—Proposed New Approval Series Requiring Use of FTP Code

Proposed subpart & Approval series	Product name	Test method required
164.105	Deck Assemblies (A-60) (SOLAS)	FTP Code Annex 1, Part 1 for components and Part 3 for the entire bulkhead.
164.106	Primary Deck Coverings (SOLAS)	FTP Code Annex 1, Parts 2 and 6.
164.107	Structural Insulation (A-60) (SOLAS)	FTP Code Annex 1, Part 1 for components and Part 3 for the entire bulkhead.
164.108	Bulkhead Panels (B-0 And B-15) (SOLAS)	FTP Code Annex 1, Part 1 for components and Part 3 for the entire bulkhead.
164.109	Non-combustible Materials (SOLAS)	FTP Code Annex 1, Part 1.
164.110	Continuous Ceilings (B-0 and B-15) (SOLAS)	FTP Code Annex 1, Part 1.
164.111	Draperies, Curtains and Other Suspended Textiles (SOLAS)	FTP Code Annex 1, Part 7.
164.112	Interior Finishes (SOLAS)	FTP Code Annex 1, parts 2 and 5.
164.117	Floor Finishes (SOLAS)	FTP Code Annex 1, Parts 2 and 5.
164.136	Fire Doors (SOLAS)	FTP Code Annex 1 Part 5 for components and Part 3 for the total door.
164.137	Windows	FTP Code Annex 1, Part 3, Appendix 1 of Part 3 and hose stream test in IMO Resolution A.754(18).
164.138	Fire Stops (Penetration Seals) (SOLAS)	FTP Code Annex 1, Part 3 and Appendix A.III and A.IV of IMO Resolution A.754(18).
164.139	Dampers (SOLAS)	FTP Code Annex 1, Part 3 and Appendix A.II of Resolution. A.754

		(18).
164.142	Bedding Components (SOLAS)	FTP Code Annex 1, Part 9.
164.144	Upholstered Furniture (SOLAS)	FTP Code Annex 1, Part 8.
164.146	Fire Door Control Systems (SOLAS)	FTP Code Annex 1, Part 4.
164.201	Fire Restricting Materials For High-Speed Craft	FTP Code Annex 1, Part 10.
164.207	Fire-Resisting Divisions For High-Speed Craft	FTP Code Annex 1, Part 11.

The Coast Guard also proposes to codify an existing SOLAS standard into a new approval series under new subpart 46 CFR 162.163, titled “Portable Foam Applicators,” in order to detail the approval requirements for portable foam applicators. Portable foam applicator units are a combination of portable foam nozzles and a supply of foam liquid concentrate, and are required in certain applications by SOLAS. Under the proposed rule, to receive Coast Guard approval of a portable foam applicator, the nozzle and the foam concentrate would have to be tested together for compliance with applicable sections of UL 162, Foam Equipment and Liquid Concentrates, Seventh Edition. UL 162 details the construction and performance requirements for equipment and liquid concentrates used in firefighting foam systems.

We also propose adding new subpart 46 CFR 164.141 for non-metallic piping systems. As discussed previously, we propose changes to 46 CFR 56.60-25 to require that plastic pipe be Coast Guard-approved. Currently, plastic pipes that comply with the fire and material strength standards identified in § 56.60-25, but do not have a COA, may be used on inspected vessels, which is inconsistent with other subchapters that specifically indicate that a product must have a Coast Guard approval. This means vessel owners, builders, or outfitters must provide documentation to the Coast Guard verifying

that, for each installation of plastic pipe, the pipes meet the requirements of § 56.60-25. In connection with the proposed change to § 56.60-25, requiring plastic pipe be Coast Guard approved, we are proposing this new subpart to add the approval series detailing plastic pipe requirements. This new approval series would eliminate the burden on vessel owners, builders, and outfitters of providing case-by-case documentation to the Coast Guard, and instead there would be plastic pipe available in the market place that is already tested and marked as Coast Guard approved. Manufacturers are already testing to these standards. This proposed change allows industry to use the pipe without further documentation.

Proposed new subpart 164.141 codifies the testing guidance in current Coast Guard Policy File Memorandum (PFM) 1-98 (available in the docket as described under ADDRESSES above), Policy File Memorandum on the Fire Performance Requirements for Plastic Pipe per IMO Resolution A.753(18). The Coast Guard created an approval series for plastic pipes based on PFM 1-98 to make the selection of pipes easier for designers, and so that manufacturers could have their pipes reviewed and type-approved by the Coast Guard for use on vessels required to meet the requirements of § 56.60-25. PFM 1-98 has been used to successfully establish approval, testing, and acceptance procedures for 37 different plastic pipe systems, each having a range of approved sizes. The proposed rule would supersede PFM 1-98 which would no longer be necessary in light of the proposed new approval series for plastic pipes.

We propose to amend the existing approval series at 46 CFR subpart 162.027 for fire hose nozzles used on domestic vessels. This proposed change would explicitly require fire hose nozzles to be of brass or bronze, except for hardware and other

incidental parts, which may be of rubber, plastic, or stainless steel. Although, we currently do not specify the materials for construction of fire hose nozzles in the subpart for the fire hose nozzles approval series, we have historically established policy to only approve fire hose nozzles which are made from brass or bronze because of these materials' proven durability in marine environments. We would also add NFPA 1964, Standard for Spray Nozzles, 2008 as an alternative standard to which fire hose nozzles may be approved. Currently, this approval series only permits fire hose nozzles approved by the Coast Guard in accordance with ASTM F 1546. Approved manufacturers have indicated that NFPA 1964, which details construction requirements and performance and testing procedures of firefighting nozzles, is more commonly used in the fire protection equipment industry to certify nozzles.

NFPA 1964 also requires a follow-up (production quality control) program to ensure that manufacturers produce nozzles as designed, tested, and approved, but does not specify such program. Typically, follow-up programs for Coast Guard-approved equipment are administered by the independent laboratory that conducted initial testing for product approval as discussed in NVIC 2-06, Follow up Programs for Fire Safety Type-Approved Products (available online at <http://www.uscg.mil/hq/cg5/nvic/pdf/2006/NVIC%2002-06.pdf>). The focus of a follow-up program is to ensure that manufacturers making fire protective materials such as fire retardant carpets continue to make products to the same standards as those that were tested for approval. Follow-up programs include testing of random product samples to ensure manufacturing precision. Follow-up programs are important for the types of products covered in NVIC 2-06, since minor changes in production can affect the fire

protective qualities of the finished product. For example, the under-application of a fire retardant chemical into a textile would reduce the fire protective qualities of carpet. However, for fire hose nozzles, performance of the final product is much less dependent on small production changes; therefore, the use of a certified quality-control procedure such as the International Organization for Standardization (ISO) 9001 configuration control, which is focused on ensuring the manufacturer consistently follows internal and external policies in production, is also appropriate. We propose in subpart 162.027 to allow the use of ISO 9000 configuration control as an alternative to a follow-up program administered by an independent laboratory. In the past, we have allowed the less restrictive use of ISO 9000 for specific and appropriate situations.

We have determined that the SOLAS standards for these materials provide an equivalent level of safety to our requirements. Therefore, in addition to the proposed new and updated approval series, we propose amending our regulations to indicate that certain fire protection equipment and materials approved under approval series that use international standards for SOLAS ships can be used in the place of the products approved under the U.S. requirements, without restriction. See proposed 46 CFR 164.006-6, 164.007-10, 164.008-8, 164.009-26, and 164.012-16. These proposed changes would allow products approved to meet the international standards to be considered equivalent to those products approved as meeting the U.S. requirements. The proposed changes, however, do not allow products meeting the domestic standards to be used in place of those requiring international approvals.

3. FTP Code test laboratories ISO/IEC 17025 certified

On July 1, 2012, the 2010 FTP Code entered into force internationally. The 2010

FTP Code requires that laboratories use a quality control program based on ISO/IEC 17025. This standard is used throughout the world, including by our currently accepted and recognized laboratories, as a means to ensure that the testing of products is conducted in a consistent, appropriate, repeatable, and professional manner.

We propose to amend 46 CFR 159.010-3, titled “Independent laboratory: Standards for acceptance” to require that all Coast Guard accepted independent laboratories testing products to the FTP Code be accredited to ISO/IEC 17025: 2005, which specifies the general requirements for the competence of testing and calibration laboratories. This proposed requirement would fulfill U.S. obligations as a signatory to SOLAS. The FTP Code, which details the technical requirements necessary to satisfy SOLAS requirements and must be adhered to by SOLAS signatories, specifically requires that independent laboratories be accredited to ISO/IEC 17025: 2005.

E. Administrative Changes

1. Correcting metric conversions

In 46 CFR subchapter K (§ 118.410) and T (§ 181.410), we propose to correct the metric volume factors used for calculating the required quantity of CO₂ for a fixed fire extinguishing system. The existing regulations provide volume factors for systems protecting enclosed ventilation systems for rotating electrical propulsion equipment and cargo spaces. The values for imperial calculations are correct. The metric values, however, are incorrect, and using them results in a significantly smaller required volume of CO₂. The imperial values align with our other regulations (See 46 CFR 95.15-5) as well as the industry standard for CO₂ extinguishing systems, NFPA 12: 2011, for similar hazard locations. Because designs of these systems are reviewed by the Marine Safety

Center or local Officer-in-Charge, Marine Inspection (OCMI), plans for vessels built in the U.S. are nearly always drawn using imperial numbers, and because the use of the metric values would yield inappropriately small amounts of required agent that any experienced system designer would recognize as faulty, we are confident that any incorrect use of the metric values would have been corrected during plan review.

Therefore, we do not believe there are existing vessels' systems that have been designed and installed with incorrect amounts of extinguishing agent.

Similarly, in 46 CFR subchapter K (§ 114.400) and subchapter T (§ 175.400), we propose to adjust the definition of “open to the atmosphere,” in both subchapters to correct an improper conversion from imperial to metric units. The definition includes metric equivalents for the requirements that indicate that a space open to the atmosphere is one that has at least 15 square inches of open area exposed to the atmosphere for every cubic foot of volume of the space. This is the desired ratio and matches the definition of “open to the atmosphere” that the Coast Guard uses in 33 CFR 183.605. However, the metric equivalent given in the regulations is incorrect and produces a result that is smaller than it should be. Because designs for vessels built to these regulations are reviewed by the Marine Safety Center or local OCMI, and plans for vessels built in the U.S. are nearly always drawn using imperial numbers, we are confident that any incorrect use of the metric values would have been corrected during plan review, therefore, we do not believe that any existing vessels were constructed and outfitted based on these erroneous values and thus no existing vessels would need to be retrofitted.

2. Moving regulations from 46 CFR 181.400 to 181.405

The existing regulations at § 181.400 contain the requirements for both fire extinguishing systems and fire detection systems on small passenger vessels regulated under 46 CFR subchapter T. We propose to separate, for clarity, these requirements by removing the regulations for fire detection systems in § 181.400(c) through (g) and moving these regulations to proposed new § 181.405(a) through (e). Further, we propose to amend the title of § 181.400 to “Spaces required to have fixed fire extinguishing systems,” in order to clarify that this section would contain the requirements for fire extinguishing systems only.

3. Addition of omitted statutory authority citation

Section 1509 of Title 33, U.S.C. authorizes regulations for safety equipment relating to the promotion of safety of life and property in deepwater ports. Subchapter NN of Title 33 CFR contains regulations establishing warning devices and safety equipment requirements, as well as other matters that relate to the promotion of safety of life and property. However, the list of authorities for these regulations does not contain this statutory authority. For clarity, we propose adding 33 U.S.C. 1509 to the list of authorities contained in 33 CFR Subchapter NN, part 148.

4. Editorial and general clarifying changes

Lastly, we propose making corrections and editorial, organizational, and clarifying amendments. These proposed changes will have no substantive effect on the public.

F. Preemption of State and Local Law

The Coast Guard conducted a federalism analysis as part of this rulemaking in order to ensure compliance with Executive Order 13132. Section VII.E., “Federalism,” discusses legal principles of preemption and the federalism implications of the proposed rule that have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as required by Executive Order 13132. In addition to conducting the federalism analysis, the Coast Guard must also comply with President Obama’s memorandum titled “Preemption,” issued on May 20, 2009, which instructs the heads of executive departments and agencies to include preemption language within the codified regulation if the regulation is intended to preempt state law. The memorandum also orders heads of executive departments and agencies to include the preemption provisions only if the provisions were justified under legal principles, including those discussed in Executive Order 13132.

This rulemaking proposes to revise existing regulations and issue new ones that preempt state and local regulation with regard to fire protection, detection, and extinguishing equipment on several types of vessels, including inspected vessels, uninspected vessels, uninspected commercial fishing vessels, towing vessels, deepwater ports, MODUs, and OCS facilities. The Coast Guard, therefore, proposes to add language to the regulatory text indicating what specific regulations have preemptive effect over State or local law within the same field. During our federalism analysis, we analyzed whether preemptive principles applied to each part, subpart, and section that is affected by this rulemaking. The Coast Guard ultimately determined, however, that

uniformity and clarity of the preemptive effect of our regulations over State or local law could be achieved if the preemption language was inserted for other sections not affected by this rulemaking, but that do indeed preempt State or local laws or regulations within other fields. Therefore, if preemptive principles applied to the regulations within the entire subchapter, even if those parts, subparts, or sections were not affected by this rulemaking, the Coast Guard proposes to add language indicating that the regulations found within the subchapter have preemptive effect over State or local law or regulation. If, however, preemptive principles did not apply to all regulations within a subchapter, but only to the part, subpart, or section amended by this rulemaking, the Coast Guard proposes to add preemption language only to that particular part, subpart, or section. The goal of this approach is to ensure uniformity and avoid any confusion as to why a particular part or subpart may contain preemption language when preemption principles apply to other parts, subparts, or sections of a subchapter, if not the entire subchapter itself. If the Coast Guard placed preemption language only within parts, subparts, or sections amended by this rulemaking (even if preemption principles applied to all parts within a subchapter), it would result in confusion and would make implementation of the President's memorandum extremely difficult. To avoid this situation, we propose to place preemption language at the most appropriate location within the subchapter. Based on the President's 2009 memo, and the analysis in our Federalism section, the Coast Guard proposes the new preemption provisions within the regulatory text in the areas specified in Table 5, below. Table 5 contains details regarding which subchapters, parts, subparts, or sections contain proposed preemption language, the location of the proposed

preemption language, and the specific language that would be inserted into the regulatory text.

The authority to promulgate regulations for different categories of vessels is granted to the Coast Guard by Congress. With respect to inspected vessels listed in 46 U.S.C. 3301, Congress granted to the Coast Guard the exclusive authority to promulgate regulations in several different categories, one of which includes required equipment (See 46 U.S.C. 3306). Additionally, it is well settled that all of the categories covered in 46 U.S.C. 3306, 3703, 7101, and 8101 (design, construction, alteration, repair, maintenance, operation, equipping, personnel qualification, and manning of vessels) are within fields foreclosed from regulation by the States. (See the decision of the Supreme Court in the consolidated cases of United States v. Locke and Intertanko v. Locke, 529 U.S. 89, 120 S.Ct. 1135 (March 6, 2000).) Since this rulemaking would affect numerous subchapters containing regulations for inspected vessels, we propose to include preemption language for each specific subchapter in Title 46 of the CFR indicating that the regulations found within the subchapter have preemptive effect over State or local regulations within the same fields, specifically: D (tank vessels), F (marine engineering), H (passenger vessels – general), I (cargo & miscellaneous vessels), I-A (MODUs), K (small passenger vessels carrying more than 150 passengers or with overnight accommodations for more than 49 passengers), L (offshore supply vessels), N (dangerous cargoes), Q (equipment, construction, and materials: specifications and approval), R (nautical schools), T (small passenger vessels (under 100 GT)), and U (oceanographic research vessels).

Similarly, we propose adding preemption language indicating that the regulations found within subchapter N (outer continental shelf activities) in 33 CFR have preemptive

effect over State or local regulations within the same fields. Congress granted the Coast Guard the authority to promulgate regulations for “lights and other warning devices, safety equipment, and other matters relating to the promotion of safety of life and property on the artificial islands, installations, and other devices” on the OCS. (See 43 U.S.C. 1333(d)(1)). Subchapter N contains regulations establishing these warning devices and safety equipment requirements, as well as other matters that relate to the promotion of safety of life and property. For this reason, we propose to add language signaling that the regulations found within the entire subchapter have preemptive effect over State or local regulations within the same fields.

We also propose adding preemption language indicating that the regulations contained within subchapter NN, concerning deepwater ports, also have preemptive effect over State or local regulation within the same fields. Section 1509(b) of 33 U.S.C. states that the Secretary of Transportation, through delegation to the Coast Guard by operation of law, “shall issue and enforce regulations with respect to lights and other warning devices, safety equipment, and other matters relating to the promotion of safety of life and property in any deepwater port and the waters adjacent thereto.” Subchapter NN contains regulations establishing warning devices and safety equipment requirements, as well as other matters that relate to the promotion of safety of life and property. For this reason, we propose adding language signaling that the regulations found within the entire subchapter have preemptive effect over State or local regulation within the same fields.

Unlike inspected vessels, Congress provided a restrictive grant of regulatory authority to the Coast Guard with respect to uninspected vessels. The Coast Guard,

therefore, may only establish safety standards in specific or limited areas where Congress intended the Coast Guard to have exclusive regulatory authority. With regard to uninspected vessels generally, as noted in 46 U.S.C. 4102(a), Congress required the carriage of a certain number, type, and size of fire extinguishers, which was permitted to be prescribed by regulation. Although certain other portions of 46 CFR subchapter C (uninspected vessels – generally) contain safety equipment regulations promulgated under 46 U.S.C. 4102, several of the safety equipment requirements are required to be located on or near equipment, or within certain spaces, in which Coast Guard regulations do not preempt State or local regulation. Therefore, the Coast Guard has already included preemption language, as part of a separate rulemaking, in 46 CFR 25.30, Fire Extinguishing Equipment, to indicate that only those regulations involving fire extinguishing equipment have preemptive effect over State or local regulation within the same field. See Carbon Dioxide Fire Suppression Systems on Commercial Vessels; Final Rule, (77 FR 33871, June 7, 2012).

This analysis for uninspected vessels generally also applies to uninspected commercial fishing vessels. Similar to the statute for uninspected vessels generally, 46 U.S.C. 4502 establishes safety standards in various different equipment categories, although some of those standards or equipment requirements are located on or near equipment, or within certain spaces, in which Coast Guard regulation does not preempt State or local regulation. For this reason, the Coast Guard proposes to insert language signaling preemptive effect over State or local regulation within the sections affected by this rulemaking only. In doing so, the Coast Guard hopes to avoid any confusion that may arise from a misreading of the regulation if language asserting preemptive effect

seemed to apply to various equipment or spaces where Coast Guard regulations does not preempt State or local regulation.

Finally, the Coast Guard proposes to add language signaling preemptive effect over State or local regulation concerning safety equipment for towing vessels located in 46 CFR part 27. Although towing vessels are listed as inspected vessels under 46 U.S.C. 3301, the Coast Guard has only proposed comprehensive regulations for their inspection and has not yet promulgated final, effective rules. See Inspection of Towing Vessels; Notice of Proposed Rule, (76 FR 49976, August 11, 2011). This rulemaking, however, proposes regulations for towing vessels that involve categories covered in 46 U.S.C. 3306, 3703, 7101, and 8101 (design, construction, alteration, repair, maintenance, operation, equipping, personnel qualification, and manning of vessels), and these regulations have preemptive effect over State and local regulation within the same field. The subparts located within 46 CFR part 27 contain general provisions and fire protection and suppression equipment requirements and fall within a category in which the State or local governments are precluded from regulating. Therefore, the Coast Guard proposes to include language signaling the preemptive effect the regulations found within 46 CFR part 27 have over State and local law within the same fields.

Table 5: Proposed preemption language by subject and affected CFR sections

SUBJECT	LOCATION	LANGUAGE
Outer Continental Shelf Facilities	Amend 33 CFR 140.3	The regulations in this subchapter (parts 140 through 147) have preemptive effect over State or local regulation in the same field.
Deepwater Ports	Amend 33 CFR 148.1	The regulations in this subchapter (parts 148 through 150) have preemptive effect over State or local regulation in the same field.
Uninspected – General	46 CFR 25.30-1	This section already contains language indicating that the regulations in this subpart have preemptive effect over State or local regulation in the same field.
Uninspected – Towing	Create 46 CFR 27.103	The regulations in this part have preemptive effect over State or local regulation in the same field.
Uninspected – Commercial Fishing Vessels	Create 46 CFR 28.155(b)	The regulations in this section have preemptive effect over State or local regulation in the same field.
Uninspected – Commercial Fishing Vessels	Create 46 CFR 28.160(e)	The regulations in this section have preemptive effect over State or local regulation in the same field.
Uninspected – Commercial Fishing Vessels	Create 46 CFR 28.325(c)	The regulations in this section have preemptive effect over State or local regulation in the same field.
Uninspected – Commercial Fishing Vessels	Create 46 CFR 28.830(c)	The regulations in this section have preemptive effect over State or local regulation in the same field.
Tank Vessels	Amend 46 CFR 30.01-1(a)	The regulations in this subchapter (parts 30, 31, 32, 34, 35, 36, 38, and 39) have preemptive effect over State or local regulation in the same field.
Marine Engineering	Create 46 CFR 50.01-15(c)	The regulations in this subchapter (parts 50, 52, 53, 54, 56, 57, 58, 59, and 61 through 64) have preemptive effect over State or local regulation in the same field.
Passenger Vessels – General	Amend: 46 CFR 70.01-1	The regulations in this subchapter (parts 70, 71, 72, 76, 77, 78, and 80) have preemptive effect over State or local regulation in the same field.

Cargo & Miscellaneous Vessels	Amend 46 CFR 90.01-1	The regulations in this subchapter (parts 90, 91, 92, 93, 95, 96, 97, 98, and 105) have preemptive effect over State or local regulation in the same field.
Mobile Offshore Drilling Unit (MODU)	Amend 46 CFR 107.01	The regulations in this subchapter (parts 107 through 109) have preemptive effect over State or local regulation in the same field.
Small Passenger Vessels < 100 GT	Amend 46 CFR 114.100	The regulations in this subchapter (parts 114 through 122) have preemptive effect over State or local regulation in the same field.
Offshore Supply Vessels (OSVs)	Create 46 CFR 125.100(f)	The regulations in this subchapter (parts 125 through 134) have preemptive effect over State or local regulation in the same field.
Dangerous Cargoes	Create 46 CFR 147.1(d)	The regulations in this subchapter (parts 147, 147A, and 148) have preemptive effect over State or local regulation in the same field.
Equipment, Construction, etc ²	Amend 46 CFR 159.001-1(b)	The regulations in this subchapter (parts 159 through 164) have preemptive effect over State or local regulation in the same field.
Nautical Schools	Amend 46 CFR 167.01-5(a)	The regulations in this subchapter (parts 166 through 169) have preemptive effect over State or local regulation in the same field.
Small Passenger Vessels > 100 GT	Amend 46 CFR 175.100	The regulations in this subchapter (parts 175 through 185) have preemptive effect over State or local regulation in the same field.
Oceanic Research Vessels	Amend 46 CFR 188.01-3	The regulations in this subchapter (parts 188, 189, 190 and 193 through 196) have preemptive effect over State or local regulation in the same field.

² Note: We propose to remove existing preemption language found within 46 CFR 160.900 and 164.900, as the proposed preemption language in 46 CFR 159.001-1(b) would apply to all parts within subchapter Q.

VI. Incorporation by Reference

Material proposed for incorporation by reference appears in 33 CFR 140.7 and 149.3, and 46 CFR 25.01-3, 27.102, 28.40, 31.01-2, 34.01-15, 56.01-2, 71.25-3, 76.01-2, 91.25-7, 95.01-2, 107.115, 108.101, 114.600, 125.180, 147.7, 161.002-1, 162.027-2, 162.028-1, 162.039-1, 162.163-2, 164.105-2, 164.106-2, 164.107-2, 164.108-2, 164.109-2, 164.110-2, 164.111-2, 164.112-2, 164.117-2, 164.136-2, 164.137-2, 164.138-2, 164.139-2, 164.141-2, 164.142-2, 164.144-2, 164.146-2, 164.201-2, 164.207-2, 169.115, 175.600, 188.01-5, and 193.01-3. 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 33 CFR 140.7 and 149.3, and 46 CFR 25.01-3, 27.102, 28.40, 31.01-2, 34.01-15, 56.01-2, 71.25-3, 76.01-2, 91.25-7, 95.01-2, 107.115, 108.101, 114.600, 125.180, 147.7, 161.002-1, 162.027-2, 162.028-1, 162.039-1, 162.163-2, 164.105-2, 164.106-2, 164.107-2, 164.108-2, 164.109-2, 164.110-2, 164.111-2, 164.112-2, 164.117-2, 164.136-2, 164.137-2, 164.138-2, 164.139-2, 164.141-2, 164.142-2, 164.144-2, 164.146-2, 164.201-2, 164.207-2, 169.115, 175.600, 188.01-5, and 193.01-3.

Before publishing a binding rule, we will submit this material to the Director of the Federal Register for approval of the incorporation by reference.

VII. Regulatory Analyses

The Coast Guard developed this proposed rule after considering numerous statutes and executive orders related to rulemaking. Below we summarize our analyses based on these statutes or executive orders.

A. Regulatory Planning and Review

Executive Orders (EO) 12866 (“Regulatory Planning and Review”) and 13563 (“Improving Regulation and Regulatory Review”) direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). EO 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility.

This proposed rule has not been designated a “significant regulatory action” under section 3(f) of Executive Order 12866. Accordingly, the proposed rule has not been reviewed by the Office of Management and Budget. Nonetheless, we developed an analysis of the costs and benefits of the proposed rule to ascertain its probable impacts on industry. We consider all estimates and analysis in this preliminary Regulatory Analysis (RA) to be draft and subject to change in consideration of public comments. A draft preliminary Regulatory Assessment follows:

The RA provides an evaluation of the economic impacts associated with this proposed rule. The table which follows provides a summary of the proposed rule costs and benefits.

Table 6: Summary of the Proposal’s Impacts

Category	Summary
Affected Population	Affected population varies by CFR title and subchapter, see Table 7 below.
Total and Annualized Costs (\$, 7% discount rate)	\$1.08 Million total costs; \$154,217 annualized costs
Unquantified Benefits	<ul style="list-style-type: none"> • Harmonization and compliance with international standards; • Harmonization with industry consensus standards; • Increased compliance choices, reducing regulatory compliance burdens;

	<ul style="list-style-type: none"> • Reduction in risk from potentially toxic or flammable gases no longer being routed into human-occupied spaces; and, • Increased safety through the ready availability of tools and equipment during emergency situations.
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The proposed rule contains provisions to amend the CFR requirements for fire protection equipment, materials and systems. Section V. Discussion of Proposed Rule, lays out the proposed changes and the rationale for those changes. For the purposes of the RA, we note that the proposed provisions fall into two broad categories: (1) Provisions that harmonize Coast Guard regulations with national and international industry consensus standards; and (2) Provisions that correct or adjust existing regulations referring to specific issues or equipment. Most of the proposed provisions, both harmonizing and non-harmonizing, are not expected to impose additional costs upon the industry.

As indicated in the IV. Background and Purpose section, this proposed rule continues the Coast Guard’s response to the Presidential Regulatory Reform Initiative of March 4, 1995 and directives including Executive Orders 12866 and 13563 that are intended to improve regulation and the regulatory process. The provisions of this proposed rule would: remove obsolete regulations and language from the CFR; substitute performance-based options for regulatory compliance as opposed to conventional prescriptive solutions; and employ appropriate current national and international industry consensus standards. The Coast Guard recognizes the significant technological advances in fire detection and suppression systems that have been made for shoreside facilities and would, through this proposed rule, encourage the use of newer equipment and modern standards in maritime operations.

The impacts of the proposed changes are discussed in the RA according to the same outline of items covered in section V. Discussion of Proposed Rule. The five organizational categories are:

- A. Fire Alarm and Detection Systems;
- B. Fire Extinguishers;
- C. Other Fire Protection Equipment Requirements;
- D. Updates to Approval Process and Guidance for Equipment and Materials; and
- E. Administrative Changes.

The five categories listed above are either: (1) Provisions that harmonize Coast Guard regulations with national and international standards; or (2) Provisions that correct or adjust existing regulations referring to specific issues or equipment. There are several subcategories within each that are discussed in turn. As previously stated, we expect the majority of these provisions will not impose any additional costs on industry. However, those provisions which may result in additional costs are marked as such and discussed as appropriate.

Table 7 shows the total affected population and the numbers of vessels, facilities, and MODUs organized by CFR subchapter. For each subcategory of provisions we identified the affected population and the respective economic impacts.

Table 7—Affected Population

CFR Title	Sub-chapter	Topic	Population
33	N	Outer Continental Shelf Facilities	9,247
33	NN	Deepwater Ports	79
46	C	Uninspected Vessels	11,362,556
		Towing Vessels	7,848
		Uninspected Vessels	93,850
		Fishing Vessels	34,590

		Recreational Vessels*	11,226,268
46	D	Tank Vessels	5,866
46	F	Marine Engineering	n/a
46	H	Passenger Vessels	290
46	I	Cargo and Miscellaneous Vessels	1,760
46	I-A	Mobile Offshore Drilling Units (MODU)	120
46	J	Electrical Engineering	n/a
46	K	Small Passenger Vessels Carrying more than 150 Passengers or with Overnight Accommodations for more than 49 Passengers	446
46	L	Offshore Supply Vessels	1,377
46	N	Dangerous Cargoes	46
46	Q	Equipment, Construction and Material Specifications and Approval	n/a
46	R	Nautical Schools	37
46	T	Small Passenger Vessels (Under 100 Gross Tons)	10,169
46	U	Oceanographic Research Vessels	602

*Mechanically propelled recreational vessels

Source: USCG MISLE database for all non-recreational populations. Recreational vessel population is from COMDTPUB P16754.26 - 2012 Recreational Boating Statistics, Table 37, available at http://www.uscgboating.org/assets/1/workflow_staging/Page/705.PDF

Costs

In the following discussion, we describe the cost impacts for each category of provisions in the proposed rule. Within each subcategory, we provide a discussion of the provisions and their expected impacts on the industry.

A. Fire Alarm and Detection Systems

1. Harmonization with International and National Consensus Standards

These provisions would allow for the use of fire detection and alarm systems under the provisions of SOLAS and FSS Code or the CFR, and would update Coast Guard requirements to reflect modern practices in fire detection and alarm systems.

Incorporation by reference is an administrative provision that is used to incorporate the international standards established for fire detection and alarm systems by SOLAS, the FSS Code, and other industry standards as discussed in V. Discussion of Proposed Rule.

These provisions remove outdated Coast Guard-specific installation requirements and incorporate by reference more up-to-date national and international consensus standards. These provisions do not require replacement or relocation of existing equipment, and therefore should impose no costs on existing or new vessels as discussions with industry show that their practice is to use the latest standards. Therefore, these provisions are not expected to result in any additional costs to industry.

2. Optional use of detection and alarm system requirements of SOLAS and the FSS Code

These incorporations provide references for other provisions that would provide non-SOLAS vessels with the option to use fire detection and alarm systems meeting either standards established by SOLAS, the FSS code and ICAI, or the standards for these systems established by the Coast Guard regulations.

SOLAS ships are currently in compliance with these provisions, so they would impose no new requirements and are not expected to incur any additional costs to the SOLAS ships population. These provisions would allow non-SOLAS vessels increased flexibility when selecting fire detection and alarm systems, by allowing fire detection and alarm systems design, manufacture, installation, and operation to comply with either Coast Guard standards or with SOLAS Chapter II-2, Regulation 7. We do not anticipate additional costs to non-SOLAS vessels since we are only giving these vessel owners the option of choosing between SOLAS and Coast Guard standards. Non-SOLAS vessels are currently using the Coast Guard standard and we believe that vessel owners and operators

will only use the SOLAS standard if this will be cost-beneficial to their operations or they plan on changing their vessel status (in the future) to SOLAS.

3. Consolidation and revision of operation and installation requirements

As discussed in section V. (A) Fire Alarm and Detection Systems, these provisions would consolidate fire alarm and fire detection system requirements and better reflect current industry advancements and adoption of seamless technologies. These proposed changes would also affect subchapters C, I, K, and T for the requirements that refer the reader to subchapter H. Advancements in marine fire detection and alarm systems include the incorporation of standards articulated in SOLAS, the FSS Code, the development of digital technology with advanced features, and development of technology for the much larger shoreside market. The consolidation of these requirements would make it easier for industry to locate and meet these requirements. As such, these administrative changes would impose no new burden on industry and are not expected to result in additional costs.

4. Grandfathering, and 2½-year Compliance Period

The provisions relating to all types of fire detection systems would be updated to reflect current technology with existing regulations retained for vessels contracted before the current provisions take effect. Vessels contracted prior to the effective date of the proposed rule would not be required to retrofit to the newer SOLAS standards; as such, these provisions are not expected to impose any additional cost to industry. These provisions update outdated Coast Guard-specific requirements and incorporate by reference more up-to-date and more commonly used national and international consensus standards. With one exception, as discussed below, these provisions do not require

replacement or relocation of existing equipment and so are not expected to have any additional costs to industry.

5. Sample extraction type smoke detection systems

This provision would require changes regarding the ventilation of potentially toxic or flammable gases. Our current regulations allow systems to route these potentially toxic or flammable gases or smoke from the cargo hold to the bridge so that a watchstander can detect a problem by smell. International consensus standards consider this unacceptably dangerous, and SOLAS has required routing of sampled gases out of manned spaces since the 1978 protocol which went into effect May 25, 1980. The proposed new provisions, found in 46 CFR 76.33, would require that all existing vessels using sample extraction fire detection methods route the gases outside the vessel and install a sensing device that will trigger a visual and audible alarm in the bridge. Existing vessels will have 5 years in which to comply with this provision. Currently, all U.S. vessels that are SOLAS certificated and built after May 25, 1980, are in compliance with this provision. According to the Coast Guard MISLE database which documents the types of fire detection systems installed onboard vessels, the affected population for this provision includes four vessels—two active SOLAS vessels built before May 25, 1980, and two active non-SOLAS vessels.

Information from the U.S. Bureau of Labor Statistics (BLS) indicates that the loaded mean hourly labor cost (wages and benefits) is \$27.15 for Sailors and Marine Oilers (BLS occupation code 53-5011³). This loaded wage rate includes the hourly base

³ <http://www.bls.gov/oes/2012/may/oes535011.htm>

wage rates of \$19.11 multiplied by a load factor of 1.42 (rounded).⁴We estimate the cost per vessel to comply with this provision at \$1,238 which involves the installation of a ventilation fan (average catalogue price \$375) and a fixed gas detector (average price \$700) and the cost of installation (6 hours at the equivalent wage of a crewmember \$27.15 per hour x 6 hours = \$163.91). We assume that one of the affected vessels will comply each year (given 5 years to meet compliance) beginning in the second year after publication of the final rule⁵.

Over the 10-year period of analysis, we estimate the total present value costs of this proposal to be about \$3,919 and \$4,467 discounted at 7 and 3 percent, respectively. We estimate the annualized costs to be approximately \$956 and \$975 discounted at 7 and 3 percent, respectively. Table 8 summarizes the costs of this proposal to industry.

Table 8—Requirement for Routing Potentially Toxic or Flammable Gases or Smoke

Year(s)	Affected Vessels	Avg. Cost per Vessel	Total Cost All Vessels		
			Undiscounted	7 percent discount	3 percent discount
1	0	\$1,238	\$0	\$0	\$0
2	1	\$1,238	\$1,238	\$1,081	\$1,167
3	1	\$1,238	\$1,238	\$1,011	\$1,133
4	1	\$1,238	\$1,238	\$944	\$1,100
5	1	\$1,238	\$1,238	\$883	\$1,068
TOTALS*	4		\$4,952	\$3,919	\$4,467
Annualized				\$956	\$975

*Totals may not sum due to rounding

6. Changes to approval processes for detection and alarm systems

⁴ Load factor is determined by dividing the reported total average compensation for all private industries of \$28.80 per hour worked in Second Quarter, 2012 by the wages and salaries per hour worked of \$20.27.

⁵ We anticipate that vessel owners will use the first year, after this rule goes into effect, for planning purposes to schedule for upgrading to the new requirement.

These provisions would make approval processes easier for manufacturers by allowing some approval tests to be completed by an (NRTL) that is recognized by OSHA as meeting OSHA standards set forth in Subpart S of CFR Part 1910. Coast Guard approval would require that these devices be tested to the general construction, material and reliability standards found in the new consensus standards, including the previously listed US standards, which are incorporated by various provisions of the proposed rule. These new consensus standards are accepted practice within the shoreside and marine industry. Since shoreside practices drive the state of art for firefighting, these incorporations will increase flexibility for the maritime industry and are not expected to result in additional costs.

As the Coast Guard also requires environmental testing for approval of these systems, these provisions would use the standards identified in Table 1 of the (IEC) 60092-504. The IEC standards are compatible with current Coast Guard approval requirements which allow users the choice between the ABS Rules Table 4/11-1 (1996 version); or Category ENV3 tests of the Lloyd's Register Type Approval System, Test Specification 1 (1990 version). We would retain the requirement that testing for marine environmental standards be performed by a Coast Guard-approved laboratory, since these laboratories have the experience and expertise in conducting these tests, and no additional burden is anticipated as a result.

These provisions also allow manufacturers of fire alarm and detection equipment two different approval options: either the current method of approval for an entire system or a new approval method for individual devices (i.e., smoke detectors) within a system. This change would allow for easier replacement of individual system devices and open

the marine market to small manufacturers or those dedicated to making components but not producing all components necessary for a complete detection system.

These provisions do not require replacement or relocation of existing equipment and do not add restrictions to the approval process, and so are not expected to have any additional costs to industry.

7. Revised requirements using guidance found in Navigation and Vessel Inspection Circular (NVIC) 7-80 for excess detection systems.

These provisions allow the use of non-Coast Guard-approved fire detection systems as excess equipment, provided that: the components are listed by an NRTL; they are designed, installed, tested, and maintained in accordance with an appropriate industry standard and the manufacturer's specific guidance; the installation conforms to the requirements of 46 CFR subchapter J (Electrical Engineering), with specific regard to the hazardous location installation regulations; the Coast Guard has completed its review of the wiring plans and approved them; and the system and units remain functional as intended.

As previously discussed in V. Discussion of Proposed Rule, these provisions codify NVIC 7-80, issued April 2, 1980. These provisions codify existing practice and do not require replacement or relocation of existing equipment and so are not expected to have any additional costs to industry.

B. Fire Extinguishers

This proposed rule would make parallel changes in each of the subchapters which require vessels, offshore facilities, and deepwater ports to carry Coast Guard approved portable or semi-portable fire extinguishers.

1. Ratings: UL 711 and NFPA 10:2010

These provisions would apply to all the affected population carrying portable and semi-portable fire extinguishers listed in Table 5, including recreational vessels. The provisions would eliminate the current Coast Guard specific rating system for fire extinguisher classifications, relying instead on the relevant national industry standards. The Coast Guard rating system relies on a weight-based standard for the retardant, while the modern industry standards UL 711 and NFPA 10 are performance-based. Currently, all Coast Guard-approved fire extinguishers are rated by their testing laboratories using both the Coast Guard and the NFPA 10 and UL 711 rating systems. Sections 162.028-4 and 162.039-4 require labeling of approved extinguishers with a specified language which includes the Coast Guard rating of the extinguisher. As a result, the Coast Guard rating system is a duplicative and potentially confusing requirement that is inconsistent with current industry standards.

Under this provision, manufacturers of fire extinguishers would no longer have to label their extinguishers with the Coast Guard rating. Extinguisher labeling would remain consistent with current industry formats and styles, and manufacturers would not need to redesign their current labels. This would simplify labeling requirements for manufacturers and limit confusion on the purchases of fire extinguishers for marine use. Currently, all fire extinguishers with Coast Guard approval are also marked with a Coast Guard and UL rating. Therefore, sections 162.028-4 and 162.039-4 requiring labeling of approved extinguishers with Coast Guard rating language would no longer be required. The removal of these requirements would eliminate confusion and have no impact on the approval procedure. We anticipate that manufacturers would continue using their current

supply of labels and would only remove the Coast Guard identifier when they order new labels. Industry would not incur any additional expense from this requirement.

The proposed changes would also include adjusting the current carriage requirements found in each subchapter that are currently based on the Coast Guard ratings (example: B-II) to an equivalent requirement that is based on the NFPA 10 and UL 711 ratings (example: 20-B). However, as noted in section V. Discussion of Proposed Rule, we found correlations between Coast Guard ratings and the NFPA 10 and UL 711 ratings, so that the number and relative size of extinguishers would not change. In some cases, however, a slightly larger or smaller extinguisher may be required under the new provisions.

For fire extinguishers on recreational and other vessels categorized under different subchapters, the Coast Guard would not require existing vessels to replace serviceable portable and semi-portable fire extinguishers as long as the equipment is properly maintained. When equipment is replaced, the replacement fire extinguisher would have to meet the requirements of the proposed provisions. New vessels, constructed after the publication of the final rule, would be required to be equipped with extinguishers that conform to the new requirements.

At the end of their serviceable life, all portable and semi-portable fire extinguishers for recreational and other vessels categorized under the different subchapters would require replacement with UL rated extinguishers. The examination of marine casualty reports from the MISLE database found positive correlations in extinguisher performance between the Coast Guard weight-based standard and the UL performance standard. The prices of extinguishers obtained from industry catalogues

indicate there is no differential in prices for extinguishers rated acceptable under the current Coast Guard standards and those of the UL standards. For this reason, we do not expect these provisions relating to fire extinguishers in non-machinery spaces to result in any additional cost to industry.

The proposed provisions requiring UL class fire extinguishers would affect vessels using large semi-portable CO₂ extinguishers (class B-IV and B-V). Extinguishers of this size are currently required in machinery spaces of vessels described under the different subchapters as shown in Table 7. Currently, the Coast Guard's weight-based rating system allows CO₂ extinguishers to be used where larger semi-portable extinguishers are required. However, CO₂ extinguishers cannot meet the UL performance standards to receive a rating large enough to be considered equivalent to UL B-IV and B-V extinguishers, therefore semi-portable CO₂ extinguishers could not be used under this provision of the proposed rule. However, as with all other extinguishers, existing vessels would not have to replace their currently operational extinguishers and would be able to continue to use these extinguishers in machinery spaces until the end of their serviceable life, when they would have to be replaced with extinguishers of comparable classification under the UL rating scale. Vessels using CO₂ based extinguishers would be required to replace their semi-portable CO₂ extinguisher with an extinguisher that uses another extinguishing agent.

To determine if there is a cost differential between the current Coast Guard-approved CO₂ semi-portable fire extinguishers and the comparable UL rated fire extinguishers, the Coast Guard Lifesaving and Fire Safety Division (CG-ENG-4) examined the catalogue pricing of B-V extinguishers that use other fire-retardant agents.

The average price of the CO₂ based B-V extinguisher was approximately \$5,000, whereas the B-V extinguishers using other agents ranged in price from \$1,200 to \$2,000. This cost differential would result in a net savings⁶ for all vessels that replace these larger CO₂ extinguishers as we would not require replacement ahead of the normal replacement schedule.

2. Maintenance: NFPA 10: 2010

These provisions of the proposed rule would require that individuals performing the annual inspection, maintenance, and necessary recharging of fire extinguishers be certified in accordance with the standards of NFPA 10. Currently, all Coast Guard approved portable fire extinguishers have language on the label stating that the extinguisher is to be inspected and maintained in accordance with NFPA 10. The NFPA 10 requirements are consistent with long-standing industry standard practices in the U.S., both shoreside and marine, and refer to the inspection and maintenance of fire extinguishers. We do not know who is currently NFPA 10 certified so we estimate compliance costs below based on our best available information.

Non-rechargeable (non-refillable) fire extinguishers are replaceable units that are expected to require little or no maintenance; after one use or a maximum service life of 12 years, they are replaced. For these extinguishers, all inspections (monthly and annual) and maintenance could continue to be done by owners, operators or designated crewmembers. Uninspected vessels, including recreational vessels, generally carry these

⁶ We are unable to provide a cost estimate for the savings that vessels may incur from replacing CO₂ extinguishers, because there is no way of knowing the exact number of CO₂ extinguishers being carried on vessels or the rate of future replacements.

types of extinguishers and are therefore not expected to be subject to any additional costs due to these provisions.

Currently, the Coast Guard permits both the monthly inspections and annual maintenance of rechargeable fire extinguishers to be performed by vessel owners, operators or by a designated crewmember. NFPA 10 requires that a “certified” person perform all annual maintenance of rechargeable extinguishers. Monthly inspections could continue to be performed by the owner, operator or a designated crewmember. In addition, the Coast Guard would accept the certification or licensing of a fire extinguisher servicing agency granted by an appropriate state or local authority having jurisdiction for servicing and maintenance.

The Coast Guard’s MISLE database contains records on approximately 113,851 fire extinguishers onboard 17,132 U.S.-flagged vessels which could be affected by these provisions. We do not have information as to which of these extinguishers are disposable and which are rechargeable; for the cost analysis we assume that all of the extinguishers would be rechargeable. We also estimate that more than 90 percent⁷ of inspected vessels currently use private servicing companies (which are already in compliance with NFPA 10) in lieu of doing their own annual maintenance, and are therefore not expected to incur any additional costs due to these provisions.

The costs associated with these provisions would be the certification costs for owner/operators who wish to continue performing annual maintenance according to NFPA 10 specifications. We estimate that 10 percent or 1,714 vessels currently are not using a private servicing company to maintain their extinguishers. We, therefore assume

⁷ The 90 percent is an estimate provided by CG-Engineering-1 based on input from field marine inspectors.

that a designated individual from each of these vessels would continue to perform annual maintenance on their extinguishers and would therefore require certification. Table 9 summarizes the population of vessels and fire extinguishers, as well as the average extinguisher count per vessel.

Table 9—Affected population for vessels choosing certification

Vessel Inspection Subchapter	Existing Population		Affected Population (10 percent of Existing)		Avg. per Vessel
	Vessels	Extinguishers	Vessels	Extinguishers	
D - Tank Vessels	3,367	13,746	337	1,375	4.08
H - Passenger Vessels	290	8,489	29	849	29.27
I - Cargo and misc. Vessels	1,716	32,540	172	3,254	18.96
IA – MODU	82	3,594	8	359	43.83
K - Small Passenger Carrying 150+ PAX or 49+ Overnight	446	3,536	45	354	7.93
L - Offshore Supply Vessels	520	9,530	52	953	18.33
N - Dangerous Cargoes (Dry Bulk)	46	470	5	47	10.22
R - Nautical Schools	37	836	4	84	22.59
T - Small Passenger Vessels (< 100 Gross Tons)	10,169	37,725	1,017	3,773	3.71
U - Oceanographic Vessels	64	1,581	6	158	24.70
UNSPECIFIED	395	1,804	40	180	4.57
TOTALS*	17,132	113,851	1,713	11,385	6.64

*Totals may not sum due to rounding

NFPA 10 certification can be obtained by either taking an online examination that lasts 2.5 hours or by attending an 8-hour seminar concluding with an examination. Upon successful completion of the examination, a certificate is awarded which will be valid for three years. We assume that individuals currently servicing fire extinguishers are familiar with proper maintenance methods and any necessary training prior to the exam can be accomplished through on the job training. We also assume that owners and operators would choose the least cost and time consuming means of obtaining certification. Therefore, we estimate the cost of this provision using the online method of certification to be \$139 per course⁸.

⁸ <http://train.fpcltd.com/>

As previously discussed, information from the BLS indicates that the loaded mean hourly labor cost (wages and benefits) is \$27.15 for crew members (BLS occupation code 53-5011 – Sailors and Marine Oilers). This loaded wage rate includes the hourly base wage rates of \$19.11 multiplied by a load factor of 1.42. We assume one crew member per vessel would be certified. We also anticipate that in the initial year of this proposed rule, all vessels would be required to have a crewmember certified. Thereafter, we anticipate that 1/3 of the affected population would have one crewmember certified each year⁹. Certification through online examination would cost approximately \$207 per mariner (\$139 + (2.5 hrs x \$27.15 /hr)). The annual cost of online examination for 10% of the affected population is approximately \$354,000 (undiscounted) for the first year and approximately \$118,000 (undiscounted) for the recurring years.

Additionally, we anticipate that industry will incur a cost burden for recordkeeping of crew members' certifications. Vessel owners and operators must have crew members' certificates available when asked by inspector to verify crew member training. We assume that a person in charge of the vessel would spend 2 minutes filing the certificate and 2 minutes to produce the certificate upon request. Based on information from the BLS, we estimate a loaded wage rate¹⁰ of \$50.38 and an estimated annual cost of this requirement to be \$3.36 per vessel ($\$50.38 \times 4 \text{ minutes} \div 60 \text{ min/hr}$).

⁹ The 1/3 certification estimate is based on vessels having employee turnover and/or crewmember needing to re-certify every three years. In this analysis we assume that for years 2 and 3, 1/3 of the affected population will be required to get certified due to an equal number of crew turnover or change in job status that would require new certification of another crewmember. Thereafter, we assume that the number of crewmember turnover, change of job status and re-certification would equate to 1/3 of the affected population per year.

¹⁰ Mean hourly wage of \$35.46 for BLS occupation code 53-5021, Captains, Mates, and Pilots of Water Vessels (<http://www.bls.gov/oes/2012/may/oes535021.htm>), multiplied by a load factor of 1.42.

We have included a detailed Paperwork Reduction Analysis in the collection of information section of the RA.

Over the 10-year period of analysis, we estimate total present value cost at approximately \$1.07 million discounted at 7 percent with an annualized cost of approximately \$152,000 discounted at 7 percent. Table 10 summarizes the costs impact of this proposal rule on industry.

Table 10— Certification Costs for NFPA 10

Year	Certifications per Year	Undiscounted Costs		Total Discounted Costs	
		Cost of Online Examination	Total costs with recordkeeping costs	Online Examination (7 percent)	Online Examination (3 percent)
1	1,713	\$354,425	\$360,181	\$336,618	\$349,690
2	571	\$118,128	\$120,046	\$104,853	\$113,155
3	570	\$117,921	\$119,836	\$97,822	\$109,667
4	571	\$118,128	\$120,046	\$91,583	\$106,660
5	570	\$117,921	\$119,836	\$85,441	\$103,372
6	571	\$118,128	\$120,046	\$79,992	\$100,537
7	570	\$117,921	\$119,836	\$74,628	\$97,438
8	571	\$118,128	\$120,046	\$69,868	\$94,766
9	570	\$117,921	\$119,836	\$65,183	\$91,844
10	571	\$118,128	\$120,046	\$61,025	\$89,326
TOTALS*		\$1,416,747	\$1,439,757	\$1,067,013	\$1,256,454
ANNUALIZED				\$151,919	\$147,295

*Totals may not sum due to rounding

3. Testing: UL 8, UL 154, UL 299, UL 626, UL 2129

These provisions amend the approval requirements for portable and semi-portable fire extinguishers to reference the appropriate UL standards. We would require the use of UL standards for each type of extinguisher and remove the current Coast Guard specific requirements. Currently all extinguishers receiving Coast Guard approvals are also tested

to UL standards and listed by a Coast Guard-recognized laboratory; therefore, we do not expect this change to add any additional costs to industry.

We are proposing to delete the existing sections §§ 162.028-1 and §§ 162.039-1 which are informational provisions and add new sections that incorporate by reference the NFPA 10 and the applicable UL standards for the different types of fire extinguishers currently approved for marine use. The harmonization of these provisions with a current Coast Guard requirement would not add any costs to industry.

4. Approval process

These provisions change the location from the CFR to our website (<http://cgmix.uscg.mil>) as the place to find the list of currently recognized Coast Guard testing laboratories. These provisions also amend the approval requirements for fire extinguisher manufacturers to more clearly reflect current practice under the Memorandum of Understanding as noted in section V. Discussion of Proposed Rule. These are informational provisions that are not expected to result in costs to industry.

5. Reducing and relocating portable spare extinguisher requirements

These provisions would amend the domestic vessel requirements for spare fire extinguishers by reducing the number of required spare portable fire extinguishers. We seek specific comments on the appropriate percentage of spares necessary on domestic vessels. Depending on comments received, we propose to reduce the number of spares to somewhere in the range of the currently required 50 percent down to as low as ten percent. Depending on comments received, we will specify the percentage of spares necessary and add this number to the existing tables in 46 CFR 34.50-10(a), 76.50-10(a), 95.50-10(a), 108.495, 169.567(a), and 181.500(b), and delete the existing references in

sections: 46 CFR 76.50-15, 95.50-15, 132.230 and 193.50-15. These provisions would add no burden to domestic vessels.

Requirements for vessels on international voyages subject to SOLAS would not change. These vessels would still be required to comply with SOLAS requirements, 100 percent spare charges for the first 10 extinguishers, then 50 percent for the remaining extinguishers (SOLAS Chapter II-2, Regulation 10.3.3).

C. Other Fire Protection Equipment Requirements

1. Spanner wrench carriage requirement for small passenger vessels

These provisions would impose a new requirement that all subchapter T and K vessels carry a spanner wrench for each 1.5-inch diameter hose installation. For existing vessels, these provisions would apply to those that currently do not have spanner wrenches. According to the Coast Guard's MISLE database, there are approximately 2,585 subchapter T and K vessels with 1.5-inch diameter hose installations. The total number of 1.5-inch diameter hose installations onboard the vessels is 6,538, for an average of approximately 2.5 hose installations per vessel. The individual catalogue prices of spanner wrenches indicate a cost of \$15.00 to \$25.00 per wrench.

Table 11 summarizes the vessel population and the cost of the potential distribution of spanner wrenches per vessel costs depending on the number of 1.5-inch diameter hose installations. Coast Guard marine inspectors report that over 90 percent of subchapter T and K already have the necessary spanner wrenches. We therefore assume that 259 vessels, or 10 percent of vessels in the affected population, would need to purchase spanner wrenches based on the number of 1.5-inch diameter hose installations on board.

Table 11—Summary of vessel population and potential per vessel costs

Number of 1.5"-hose Installations	Total Vessel Count	10% of Affected Vessels	Costs per Vessel	
			Low	High
1	630	63	\$15.00	\$25.00
2	1,298	130	\$30.00	\$50.00
3	263	26	\$45.00	\$75.00
4	164	16	\$60.00	\$100.00
5	111	11	\$75.00	\$125.00
6-9	78	8	\$90 - \$135	\$150 - \$225
10-20	33	3	\$150 - \$300	\$250 - \$500
>20	8	1	\$315 - \$750	\$525 - \$1250
TOTAL*	2,585	259		

Table 12 summarizes the total costs of this proposal to industry. We expect the costs of this provision to be incurred in the first year. We estimate costs for this provision using the average cost range of spanner wrenches to be \$20 per vessel. Based on information from MISLE, there are approximately 6,538 1.5-inch diameter hose installations onboard 2,585 vessels for an average of 2.5 (rounded) 1.5-inch diameter hose installations per vessel. Based on an average of 2.5 hose installations per vessel, (for cost calculation purposes in this analysis we use an average cost for the wrench of \$20.00) the average per vessel costs is approximately \$50 (\$20.00 per unit x 2.5 units per vessel).

Table 12—Total costs of spanner wrench carriage requirement

	Affected Vessels (A)	10% of Count of 1.5" Installations (B)	Wrench costs (C)	Total* (B x C)
Spanner Wrench Price	259	654	\$20.00	\$13,076

*Totals may not sum due to rounding

2. Alternative use of two small firehoses in place of a single hose.

This provision allows for two 1.5-inch diameter hoses to be used instead of one 2.5-inch hose. This allowance would only be for hoses at external locations. This provision does not preclude the use or carriage of a 2.5-inch hose and allows the vessel owners and operators to make the choice which best suit their specific need. This provision, which is an option to owners and operators, is not expected to have any additional costs on industry. We came to this conclusion, because we believe that existing vessels would not exercise their option to convert from a 2.5-inch diameter hose to two 1.5 –inch diameter hoses unless it will be beneficial to their operations.

3. Limited use of land-based fire extinguishers.

We propose in 46 CFR 34.50-10 that portable fire extinguishers brought onto unmanned barges during cargo transfer or operation of barge machinery or boilers, as required by Table 34.50-10(a), need not be Coast Guard-approved. As discussed in section V. Discussion of Proposed Rule, this proposed change would codify the policy issued by NVIC 13-86, which allows non-Coast Guard approved fire extinguishers, but only those that are UL-approved, to be used on unmanned barges. We have permitted the use of non-Coast Guard, UL-approved extinguishers on unmanned barges because unmanned barges are not required to carry portable fire extinguishers while in transit, and thus such extinguishers need not be tested for marine environmental conditions, which is the purpose of the Coast Guard approval.

The use of extinguishers that are brought aboard an unmanned barge during loading may reduce the operating costs for the barge owner because barges would not be required to have fire extinguishers permanently mounted onboard the barges, nor would

they need to be inspected monthly or serviced annually. This change codifies current practice and provides industry with flexibility in providing fire extinguishers for barges during cargo operations. As such, we do not expect these proposed changes to result in any additional costs to the industry.

4. Amended definitions for small passenger (subchapter T) vessels.

These provisions include explanatory language and clarification of definitions. These provisions do not alter nor impose new requirements on industry, but rather are informational and explanatory in nature. Consequently, they would not impose any additional costs on the industry.

5. Clarification on the use of international standards (SOLAS) in lieu of domestic standards.

These provisions would establish equivalency between the structural fire protection requirements of SOLAS, Chapter II-2 and the requirements of subparts affecting domestic vessel populations. The purpose would be to allow certain types of domestic vessels to employ the structural fire protection requirements established by SOLAS if it is advantageous to do so.

These provisions also allow the use of alternative materials in products approved under each of the SOLAS Chapter II-2 approval sections.

6. Use of non-metallic pipe

These provisions allow for the use on non-metallic piping for short sections, 30 inches or less, in non-vital systems provided the pipe is contained in one compartment. Current requirements state that all piping in these situations meet flame spread requirements. The proposed allowance of short runs of plastic pipe on non-vital systems

within the same compartment without any Coast Guard approval increases flexibility for industry and may reduce costs. Also, plastic pipes are easier to maintain and cheaper, and their use would not compromise the Coast Guard's safety goals. We expect that the industry would choose to employ plastic pipes for use in sanitary service areas, such as toilet, sink and shower supply, and drain lines in accommodation spaces. As such, we do not expect these proposed changes to result in any additional costs to the industry.

7. Use of non-metallic pipe on small passenger (subchapter T) vessels.

The Supplemental Notice of Proposed Rulemaking (SNPRM) for Small Passenger Vessel Inspection and Certification, (59 FR 1994, January 13, 1994) aligned the requirements for non-metallic piping with requirements for other vessels at the time without directing users to refer to 46 CFR part 56 to find the requirements for non-metallic pipe. All other inspected vessels, including passenger vessels regulated by 46 CFR subchapters H and K, are required to use the requirements found in § 56.60-25 for nonmetallic pipe. The intent of the 1994 SNPRM was to make the “construction material requirements for vital system piping consistent for all vessels regardless of size or passenger capacity.” However, the 1994 SNPRM did not include the reference to § 56.60-25 for Subchapter T vessels.

Because subchapter T does not refer the reader to § 56.60-25, and was not updated to mirror the requirements in § 56.60-25, the current regulations in Subchapter T are more restrictive than those for other classes of vessels. The proposed changes to § 182.720 would allow this class of small passenger vessels to use the requirements of § 56.60-25, including the proposed changes to this section discussed above, as an

alternative to those prescribed in subchapter T. As such, we do not expect these proposed changes to result in any additional costs to the industry.

8. Sprinkler systems

The proposed regulations would remove the Coast Guard-unique design and installation requirements for sprinkler systems currently found in 46 CFR 76.25-5 through 76.25-35, erroneously left in place by a previous rulemaking (Harmonization with International Safety Standards; 62 FR 51188, September 30, 1997). In that rulemaking, which adopted NFPA 13 to replace the Coast Guard-unique requirements for sprinkler systems, sections 76.25-5 through 76.25-35 should have been deleted, but were not.

The proposed regulations would also add clarifying language and chapter specificity regarding NFPA 13. Updates in 2010 to NFPA 13 specify that performance for the designed sprinkler system should not be reduced whether a vessel is upright or at an inclined angle. Industry practice for marine systems already takes these incline angles into account and therefore these proposed changes do not alter current industry standards or practice and as such, are not expected to result in any additional costs.

9. Alternatives for Halon bottle inspection

Current requirements for cylinders storing Halon 1301 state that they must be emptied and hydrostatically tested every 12 years. Also, cylinders discharged more than 5 years after the previous testing must be retested before refilling. However, due to the international ban on the production of Halon 1301, emptying and refilling of a Halon 1301 cylinder is expensive and impractical for many vessel owners as it requires carefully controlled reclamation and collection of Halon 1301.

As discussed in V. Discussion of Proposed Rule, the proposed changes to 46 CFR 147.65 would establish an alternative method of periodic inspection and testing requirements for Halon 1301 fire extinguishing systems by codifying NVIC 3-95, Periodic Inspection and Testing of Fixed Halon Fire Fighting Equipment Aboard Merchant Ships, and allow visual exams for Halon-storage bottles. We do not expect these proposed changes to result in any additional costs to industry.

D. Updates to Approval Process and Guidance for Equipment and Materials

1. Mutual Recognition Agreements (MRA)

These provisions would explain the following with regard to MRAs: their purpose; the Coast Guard process for approval and acceptance of equipment and materials; the numbering and labeling of approved equipment and materials; and the location of the current listing of all equipment approved under MRAs. These provisions may expand market opportunities and reduce management and testing costs for manufacturers as duplicative foreign nation approvals would not need to be sought. These provisions further the goals of EO 13609, which states that international regulatory cooperation can be an important means of promoting the goals of EO 13563. EO 13609 further states that differences between the US and foreign counterparts might not be necessary and might impair the ability of American businesses to export and compete internationally. These provisions codify MRAs currently in force, and do not impose new requirements on industry. Consequently, they would not impose any additional costs on the industry.

2. Approval series

To accompany the changes made to the requirements for fire-detection systems on board vessels, 46 CFR Subchapter Q would codify changes to the approval requirements necessary to meet the changes as discussed above. Also, we would replace outdated Coast Guard-specific requirements, including standards for non-metallic piping systems and fire hose nozzles, with suitable national and international consensus standards, and codify new approval series for equipment and materials approved for use on SOLAS ships, including portable foam applicator units.

The proposed changes would require that all Coast Guard-accepted independent laboratories testing products for approval to the SOLAS requirements adhere to the FTP Code. On July 1, 2012, the 2010 Fire Test Procedures Code entered into force, and requires that laboratories use a quality control program based on ISO/IEC 17025. This standard is used throughout the world by our accepted laboratories as a means to ensure that testing of products is conducted in a consistent, appropriate, repeatable, and professional manner. Additionally, the proposed subpart 162.027 allows the use of ISO 9000 configuration control as an alternative to a follow-up program administered by an independent laboratory. In the past, we have allowed the less restrictive use of ISO 9000 for specific and appropriate situations.

In addition to the proposed new and updated approval-series requirements discussed above, the proposed changes would amend our regulations to indicate that certain fire protection equipment and materials approved under approval series that use international standards for SOLAS vessels can be used without restriction in place of the products approved under the U.S. requirements, such as fire doors. These changes would allow products approved to meet the international standards to be considered equivalent

to those products approved as meeting the U.S. requirements, because we have determined that the SOLAS standards for these materials provide an equivalent level of safety to our requirements.

For the reasons discussed above, we do not expect these proposed changes to result in any additional costs to industry.

3. FTP Code test laboratories ISO/IEC 17025 certified

These provisions require that all laboratories which test according to the FTP Code be ISO/IEC 17025 certified. All currently approved FTP Code laboratories have ISO/IEC certification. This provision would codify international consensus standards and reflects currently existing practice and is not expected to impose any additional costs on industry.

E. Administrative Changes

The proposed rule will also perform some administrative and technical changes including: correcting conversion calculations listed in 46 CFR subchapter K (§ 118.410) and T (§ 181.410); moving and separating, for clarity, certain requirements by removing the regulations for fire detection systems in § 181.400(c) through (g) and moving these regulations to proposed new § 181.405(a) through (e); adding previously omitted statutory authority citation 33 U.S.C. 1509 to the list of authorities contained in 33 CFR Subchapter NN, part 148; and, making other corrections including editorial, organizational, and clarifying amendments. These are administrative corrections and would not impose any additional cost to the affected population.

Summary of Total costs from all provisions

As discussed in the preamble and RA, total costs from this proposed rule stem from three provisions: (1) The NFPA 10 certification costs for owners and operators who wish to continue performing annual maintenance themselves; (2) Installation of a sensing device for vessels using sample extraction fire detection methods; and (3) The spanner wrench carriage requirement. Table 13 summarizes the total costs for these provisions and Table 16 presents the average total discounted and annualized costs by inspected subchapter (7 percent discount rate). Over the 10-year period of analysis, we estimate total discounted costs of these provisions to be approximately \$1.08 million and the annualized cost at \$154,217 using a discount rate of 7 percent.

Table 13— Estimate for total costs

Year	NFPA 10 Certification and Recordkeeping	Undiscounted Costs			Discounted Costs	
		Sample Extraction	Spanner Wrenches	Undiscounted Total Costs	Total Costs (7 percent)	Total Costs (3 percent)
1	\$360,181	\$0	\$13,076	\$373,257	\$348,838	\$362,385
2	\$120,046	\$1,238	-	\$121,284	\$105,934	\$114,322
3	\$119,836	\$1,238	-	\$121,074	\$98,832	\$110,800
4	\$120,046	\$1,238	-	\$121,284	\$92,527	\$107,759
5	\$119,836	\$1,238	-	\$121,074	\$86,324	\$104,439
6	\$120,046	-	-	\$120,046	\$79,992	\$100,537
7	\$119,836	-	-	\$119,836	\$74,628	\$97,438
8	\$120,046	-	-	\$120,046	\$69,868	\$94,766
9	\$119,836	-	-	\$119,836	\$65,183	\$91,844
10	\$120,046	-	-	\$120,046	\$61,025	\$89,326
TOTALS*	\$1,439,757	\$4,944	\$13,076	\$1,457,784	\$1,083,152	\$1,273,617
Annualized					\$154,217	\$149,307

*Totals may not sum due to rounding

Total Costs by CFR Subchapter

As this proposed rule affects a range of commercial vessels regulated under a number of 46 CFR subchapters, we present a summary of those affected vessels organized by inspection subchapter designation in Table 14. This summary aggregates the per-vessel costs based on a vessel’s inspection subchapter designation. The summary in Table 12 presents the average 10-year and annualized costs, discounted at 7 percent. We also present the total number of affected vessels and the average annualized discounted cost per vessel (7 percent). Over the 10-year period of analysis, we estimate approximately 1,713 vessels will incur an average annualized cost of \$78 per vessel. Table 14 below presents these results.

Table 14—Average discounted total costs by inspection subchapter (7 percent)

Inspection Subchapter Designation	Description	Discounted Total Costs (7 percent)	Annualized Costs (7 percent) (A)	Affected Population (B)	Annualized Costs per Vessel (A/B)
C	Uninspected Vessels	\$0	\$0	n/a	n/a
D	Tank Vessels	\$212,875	\$30,309	338	\$90
H	Passenger Vessels >100 GT	\$18,335	\$2,610	30	\$87
I	Cargo Vessels	\$108,492	\$15,447	174	\$89
IA	MODU	\$5,184	\$738	8	\$90
K	Small Passenger Vessels	\$28,198	\$4,015	87	\$46
L	Offshore Supply Vessels	\$32,876	\$4,681	52	\$90
N	Dangerous Cargoes (Dry Bulk)	\$2,908	\$414	5	\$90
R	Nautical Schools	\$2,339	\$333	4	\$90
T	Small Passenger Vessels	\$642,924	\$91,538	1,233	\$74
U	Oceanographic Research	\$4,046	\$576	6	\$90
UNSPECIFIED	--	\$24,973	\$3,556	40	\$90
TOTALS**		\$1,083,152	\$154,217	1,976	\$78

**Totals may not sum due to rounding

Benefits

1. Harmonization with International and National Standards

The benefits of the proposed rule include harmonization and compliance with internationally enforced standards, and harmonization with national industry consensus standards.

For U.S. vessels to receive SOLAS certification, they must be constructed and maintained to international standards in addition to Coast Guard regulations. Therefore, harmonizing our regulations with SOLAS requirements reduces the regulatory burden on vessel owners and operators. Further, for SOLAS vessels, compliance with internationally enforced standards is necessary to prevent a vessel from being subject to detention by Port State Controls (PSC). Port State Controls can detain a ship in a foreign port and require that any deficiencies be rectified before the ship can depart. Delays of this type can be costly to the owners and operators of vessels. Additionally, permitting non-SOLAS vessels to use international standards instead of domestic standards would give these vessels more options during the design, installation and outfitting process of the vessel.

For both SOLAS and non-SOLAS vessels, the harmonization with national industry consensus standards allows vessels to take advantage of modern technologies developed for shoreside use. The marine market for fire safety equipment is much smaller than that for the shoreside industry and, by incorporating the use of national industry consensus standards, this proposed rule would allow vessels a wider choice of equipment that still meets the standards required for vessel safety. This increase in availability and selection of products and services allows owners and operators to increase their purchasing power by improving the product and pricing options available through greater competition.

Most of the harmonization provisions, whether international standards or modern industry consensus standards, are not expected to impose any additional costs on industry because they will not require the immediate replacement of serviceable current equipment. Current equipment will be replaced only at the end of its serviceable life, in most cases. The cost of replacement equipment that meets the new standards is expected to be less costly than its current counterpart in the marine market. There are three exceptions to this, which have been discussed in the Costs section. Additionally, these provisions provide additional economic efficiencies through the expansion of markets, particularly international markets.

2. NFPA 10 Certification

The shoreside firefighting industry drives innovations and the establishment of standards. NFPA 10 certification for individuals maintaining fire extinguishers is an established shoreside standard and practice helping to ensure that pressure vessels are properly handled and maintained. Similarly, NFPA 10 certification for mariners servicing fire extinguishers helps to ensure that those performing the maintenance have been trained to industry standards. These certifications help to preserve the margin of safety necessary when handling pressure vessels such as portable fire extinguishers. Additionally, national industry consensus standards, incorporated by reference, help to ensure that maintenance is performed in a consistent manner. This allows vessel owners and operators to take advantage of improved methodologies and safe operating procedures as well as removing barriers for the maintenance industry to service the maritime sector, potentially expanding the market of service providers and reducing costs.

3. Ventilation of Potentially Toxic or Flammable Gases for Systems Using Sample Gas Extraction

Sample gas extraction systems which route environmental samples from the cargo holds to the bridge so a watchstander can detect a problem by smell have been considered by international consensus standards to be unacceptably dangerous. These potentially toxic or flammable gases may create hazardous conditions and may present unnecessary and avoidable risks to the watchstander. In recognition of this, the 1978 SOLAS protocol, which went into effect May 25, 1980, directed that the gases be vented to the exterior rather than to the bridge. The need for a reduction of human exposure to potentially hazardous environments is well recognized by the Occupational Safety and Health Administration as noted in their implementation of ventilation standards, including exhaust ventilation systems (29 CFR 1910.94(a)(4)). These standards specify that potentially toxic gasses should be routed away from human occupied spaces.

Additionally, the installation of a detection system provides increased warning capability as both a visual and audible alarm is installed. As such, the detection system reduces detection time as the sensitivity to gases which indicate potential problems is much more attuned and consistent than an individual crew member's olfactory sense. Finally, the environmental conditions are improved as potentially toxic or flammable gases are no longer routed into human-occupied spaces.

4. Spanner Wrench Carriage Requirement

Spanner wrench requirements ensure that the safety equipment installed onboard vessels is available for use. These requirements ensure that a 1.5-inch hose can be used in the case of an emergency. Additionally, requiring the placement of the wrench near the hose installation may reduce response time as the necessary tool is readily available.

B. Small Entities

Under the Regulatory Flexibility Act (5 U.S.C. 601-612), we have considered whether this proposed rule would 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.

In order to determine whether this proposed rule would have a significant impact on a substantial number of small entities, we assume the maximum potential impact any single vessel and entity would incur when estimating costs. Table 15 illustrates this possibility should a single entity choose to implement these requirements on the same vessel during the first year. We anticipate that the estimated average annualized discounted cost (7 percent) per vessel to be \$78. Table 14 (above) discusses the distribution of costs by inspection subchapter and we note that the annualized discounted costs (7 percent) range from approximately \$46 to \$90.

Table 15—Estimated maximum undiscounted first year costs

Inspection Subchapter Designation	Description	NFPA 10 Certification Costs	Sample Extraction Costs	Spanner Wrench Costs	Totals (Undiscounted)		
					Total Costs	Vessel Count	Cost per Vessel
C	Uninspected Vessels	-	-	-	\$0	n/a	n/a
D	Tank Vessels	\$70,787	\$1,238	-	\$72,025	337	\$214
H	Passenger Vessels > 100 GT	\$6,097	\$1,238	-	\$7,335	29	\$253
I	Cargo Vessels	\$36,077	\$2,476	-	\$38,553	172	\$225
IA	MODU	\$1,724	-	-	\$1,724	8	\$210
K	Small Passenger Vessels	\$9,377	-	\$852	\$10,229	45	\$229
L	Offshore Supply Vessels	\$10,932	-	-	\$10,932	52	\$210
N	Dangerous Cargoes (Dry Bulk)	\$967	-	-	\$967	5	\$210
R	Nautical Schools	\$778	-	-	\$778	4	\$210
T	Small Passenger Vessels	\$213,792	-	\$4,318	\$218,110	1,017	\$214
U	Oceanographic Research	\$1,346	-	-	\$1,346	6	\$210

UNSPECIFIED	--	\$8,304	-	-	\$8,304	40	\$210
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We next calculate the expected impact on small entities using a 1 percent revenue impact as a threshold level. In order for a small entity to incur this threshold value, their average annual revenue must be less than approximately \$22,000. Using information from several industry sources which contain revenue and employee size information (such as Manta, Cortera, and ReferenceUSA), the Coast Guard has developed a database of entities in the maritime industry which includes the vessels they own. Table 16 presents the distribution of these entities which is broken down by the vessel inspection subchapter designation, the estimated number of small entities, and the estimated count of small entities with revenue under the threshold value based on the cost impact presented in Table 15.

Table 16—Estimated distribution of small entities by inspection subchapter

Inspection Subchapter Designation	Number of Small Entities	Average Revenue	Max Revenue	Min Revenue	Revenue for a 1% Impact	Count of Entities under the threshold
C	1,094	\$1,380,864,403	\$187,437,000,000	\$15,000	n/a	n/a
D	146	\$21,494,060,774	\$187,437,000,000	\$62,000	\$21,392	0
H	45	\$100,290,000	\$500,000,000	\$500,000	\$25,293	0
I	142	\$86,252,652	\$1,070,988,000	\$70,000	\$22,467	0
IA	16	\$242,016,333	\$1,767,445,000	\$390,000	\$21,024	0
K	48	\$5,915,538	\$50,000,000	\$110,000	\$22,934	0
L	18	\$4,532,613	\$20,000,000	\$150,000	\$21,024	0
N	3	\$27,075,000	\$100,000,000	\$500,000	\$21,024	0
R	6	\$849,996	\$1,549,979	\$200,000	\$21,024	0
T	1,015	\$12,532,100	\$1,000,000,000	\$9,000	\$21,448	4
U	8	\$27,500,000	\$50,000,000	\$5,000,000	\$21,024	0
UNSPECIFIED	347	\$46,920,905	\$1,390,835,000	\$2,000	\$21,024	5
BLANK*	24	\$58,153,333	\$741,370,000	\$140,000	n/a	n/a
TOTALS**	2,912	--	--	--	--	--

*Vessels with 'BLANK' inspection subchapters are treated as 'Uninspected'

**Totals may not sum due to rounding

The Coast Guard assumes that entities will choose to minimize revenue impacts for any given year; therefore, we estimate the revenue impact would more closely resemble the discussion presented in Table 14. However, based on the analysis presented in Tables 15 and 16, at most 9 out of 1,362 (1,015 + 347) entities may experience annual costs exceeding the 1 percent threshold. As a result, the Coast Guard assumes this proposed rule would not significantly impact revenues on a substantial number of small entities (i.e., annual costs are expected to be less than one percent of annual revenues), and therefore, do not represent a significant economic impact on affected small entities. Therefore, the Coast Guard certifies under 5 U.S.C. 605(b) that this proposed rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. If you think that your business, organization, or governmental jurisdiction qualifies as a small entity and that this rule would have a significant economic impact on it, please submit a comment to the Docket Management Facility at the address under ADDRESSES. In your comment, explain why you think it qualifies and how and to what degree this proposed rule would economically affect it.

C. Assistance for Small Entities

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996, Public Law 104-121, we want to assist small entities in understanding this proposed rule so that they can better evaluate its effects on them and participate in the rulemaking. If the proposed rule would affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please consult LCDR John Miller, Office of Design and Engineering Standards, Lifesaving and Fire Safety Division (CG-ENG-4), Coast Guard; (202) 372-

1372 or email John.H.Miller@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

The proposed rule would call for a collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 – 3520). As defined in 5 CFR 1310.3 (c), “collection of information” comprises reporting, recordkeeping, monitoring, posting, labeling, and other, similar actions. The Title and description of the information collection, a description of those who must collect the information, and an estimate of the total annual burden follow. The estimate covers the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection. This proposed rule would modify an existing collection as discussed below.

TITLE: Certificates of Compliance, Boiler/Pressure Vessel Repairs, Cargo Gear Records, and Shipping Papers

OMB CONTROL NUMBER: 1625-0037

SUMMARY OF COLLECTION OF INFORMATION:

These requirements provide the marine inspector with information regarding the condition of a vessel and its equipment, a list of the type and amount of cargo that has been or is being carried on a vessel, plus information about the owner of the vessel. Each of these requirements relate to the promotion of safety of life at sea and protection of the marine environment. .

NEED FOR INFORMATION:

The certification requirement would provide proof that the crewmember assigned to perform the annual fire extinguisher maintenance for rechargeable fire extinguishers onboard a vessel is trained and certified in accordance with NFPA 10 industry standards. Vessel owners and operators must have crew members' certificates available when asked by an inspector to verify crew member training.

PROPOSED USE OF INFORMATION:

The certificate verifies that crewmembers performing annual maintenance on rechargeable fire extinguishers are current on NFPA 10 training and standards.

DESCRIPTION OF THE RESPONDENT:

We anticipate that a small number of the affected population (1,713 vessel owner/operators) would perform their own annual maintenance on rechargeable fire extinguishers. Vessel owners and operators do have the option of hiring servicing companies to perform the annual maintenance instead of performing the task themselves. However, if a vessel owner or operator elects to perform the annual maintenance on rechargeable fire extinguishers themselves, the crewmember selected for the duty must be trained and certified in NFPA 10 industry standards. We assume the vessel Master will maintain the certificate on file.

NUMBER OF RESPONENTS:

We estimate that a Master for each of 1,713 vessels would be affected by this proposed rule. See Table 7 for an estimated detailed description of the number of vessels, by subchapter, affected by this rule.

FREQUENCY OF THE RESPONSE:

We anticipate that all 1,713 vessels will have a crewmember trained and certified in accordance with NFPA 10 industry standards to perform annual maintenance on rechargeable fire extinguishers. We estimate that in the first year all vessels in the affected population would require certification. After the first year, we estimate that 1/3 of the affected population or 571 crewmembers, would require new certification or re-certification. See footnote 5 above for explanation of the assumption used in the certification for years 2 and 3.

BURDEN OF RESPONSE:

We estimate additional burden imposed by this proposed rule to be minimal on a per vessel basis. The amount of annual recordkeeping required is anticipated to be less than two minutes for filing the certificate, and another two minutes for producing the certificate during periodic inspections.

ESTIMATE OF TOTAL ANNUAL BURDEN:

We estimate the total annual burden for the affected population in the initial year of this rule to be 114.2 hours $((4 \text{ min} * 1,713 \text{ total affected population}) \div 60 \text{ minutes})$. After the initial year, we anticipate that 1/3 of the affected population or 571 vessel

Masters¹¹ would be burdened with this new requirement. We estimate the annual burden, after the initial year, to be 38 hours ($(4 \text{ min} * 571) \div 60 \text{ minutes}$). The annual cost of this burden in the initial year is estimated to be \$5,754 ($114.2 \text{ hours} * \$50.38 \text{ Vessel Masters}$), and after the initial year to be \$1,914 ($38 \text{ hours} * \$50.38 \text{ Vessel Masters}$). The per-vessel burden cost is estimated to be \$3.35 ($\$1,914 \div 571$) (note that the per-vessel cost burden in the initial year will be equal to the burden in the subsequent years).

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507 (d)), we have submitted a copy of this proposed rule to OMB for its review of the collection of information.

We ask for public comments on the proposed collection of information to help us determine how useful the information is; whether it can help us perform our function better; whether it is readily available elsewhere; how accurate our estimate of the burden of collection is; how valid our methods for determining burden are; how we can improve the quality, usefulness, and clarity of the information, and how we can minimize the burden of collection.

If you submit comments on the collection of information, submit them both to OMB and to the Docket Management Facility where indicated under ADDRESSES, by the date under DATES.

You need not respond to a collection of information unless we have published a currently valid control number from OMB. Before the Coast Guard could enforce the collection of information requirements in this proposed rule, OMB would need to approve the Coast Guard's request to collect this information.

¹¹ As discussed above in section VII. Regulatory Analysis, we assume a vessel master will be responsible for filing and producing the certificate upon request.

E. Federalism

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. We have analyzed this rule under that Order and have determined that it is consistent with the fundamental principles and preemption requirements described in Executive Order 13132. Our analysis is explained below.

It is well settled that States may not regulate in categories reserved for regulation by the Coast Guard, including categories for inspected vessels. It is also well-settled, now, that all of the categories covered in 46 U.S.C. 3306, 3703, 7101, and 8101 (design, construction, alteration, repair, maintenance, operation, equipping, personnel qualification, and manning of vessels), as well as the reporting of casualties and any other category in which Congress intended the Coast Guard to be the sole source of a vessel's obligations, are within the field foreclosed from regulation by the States. (See the decision of the Supreme Court in the consolidated cases of *United States v. Locke and Intertanko v. Locke*, 529 U.S. 89, 120 S.Ct. 1135 (March 6, 2000).) This proposed rule regulates fire prevention, protection, detection, and extinguishing equipment on inspected vessels, and therefore the States may not regulate within this category of fire prevention equipment. Therefore, the rule is consistent with the principles of federalism and preemption requirements in Executive Order 13132.

Additionally, towing vessels are now subject to inspection under 46 U.S.C. 3301 and 3306. As mentioned above, it is well-settled that states may not regulate within categories covered in 46 U.S.C. 3306 for inspected vessels. Since this proposed rule

creates comprehensive regulations for fire prevention, protection, detection, and extinguishing equipment on towing vessels, states may not regulate within this category of fire prevention equipment. Therefore, the rule is consistent with the principles of federalism and preemption requirements in Executive Order 13132.

Congress also granted to the Coast Guard, through delegation by the Secretary, the authority to promulgate regulations with respect to firefighting equipment on uninspected vessels. 46 U.S.C. 4102(a) requires that "[e]ach uninspected vessel propelled by machinery shall be provided with the number, type, and size of fire extinguishers, capable of promptly and effectively extinguishing burning liquid fuel, that may be prescribed by regulation." This proposed rule regulates, among other things, fire extinguishing equipment on uninspected vessels, and therefore the States may not regulate within this category. Therefore, the rule is consistent with the principles of federalism and preemption requirements in Executive Order 13132.

Additionally, with regard to regulations promulgated under 46 U.S.C. 4302 concerning recreational vessels, under 46 U.S.C. 4306, those Federal regulations that establish minimum safety standards for recreational vessels and their associated equipment, as well as regulations that establish procedures and tests required to measure conformance with those standards, preempt State law, unless the State law is identical to a Federal regulation or a State is specifically provided an exemption to those regulations, or permitted to regulate marine safety articles carried or used to address a hazardous condition or circumstance unique to that State. This proposed rule establishes minimum requirements for fire extinguishing equipment for recreational vessels, and therefore the States may not issue regulations that differ from Coast Guard regulations within these fire

equipment categories for recreational vessels. Therefore, the rule is consistent with the principles of federalism and preemption requirements in Executive Order 13132.

Congress also granted the authority, through delegation by the Secretary, to promulgate regulations for uninspected commercial fishing vessels, which requires these vessels to "be equipped with...readily accessible fire extinguishers capable of promptly and effectively extinguishing a flammable or combustible liquid fuel fire." 46 U.S.C. 4502(a)(1). Also, Congress permitted the Secretary to establish minimum safety standards for certain uninspected commercial fishing vessels, including standards for "fire protection and firefighting equipment, including fire alarms and portable and semi-portable fire extinguishing equipment." 46 U.S.C. 4502(c)(2)(C). As this proposed rule regulates fire prevention, protection, detection, and extinguishing equipment on uninspected commercial fishing vessels, the States may not regulate within this category of equipment. Therefore, the rule is consistent with the principles of federalism and preemption requirements in Executive Order 13132.

Additionally, Congress specifically granted the authority to regulate artificial islands, installations, and other devices permanently or temporarily attached to the Outer Continental Shelf (OCS) and in the waters adjacent thereto as it relates to the safety of life to the Secretary of the Department in which the Coast Guard is operating. 43 U.S.C. 1333(d)(1) states that the Secretary "shall have the authority to promulgate and enforce such reasonable regulations with respect to lights and other warning devices, safety equipment, and other matters relating to the promotion of safety of life and property on the artificial islands, installations, and other devices ... as he may deem necessary." As this proposed rule regulates fire prevention, protection, detection, and extinguishing

equipment to ensure safety of life on these OCS installations, it falls within the scope of authority Congress granted exclusively to the Secretary. This authority has been delegated to the Coast Guard and is exercised in this rulemaking, and the States may not regulate within this category of safety equipment. Therefore, the rule is consistent with the principles of federalism and preemption requirements in Executive Order 13132.

Finally, Congress granted the authority to regulate deepwater ports to the Secretary of Transportation. 33 U.S.C. 1509(b) states that the Secretary of Transportation “shall issue and enforce regulations with respect to lights and other warning devices, safety equipment, and other matters relating to the promotion of safety of life and property in any deepwater port and the waters adjacent thereto.” When the Coast Guard was an agency within the Department of Transportation, the authority to issue regulations with respect to safety on deepwater ports was delegated to the Coast Guard. See 49 CFR 1.46(s). The Homeland Security Act of 2002, P.L. 107-296, transferred the Coast Guard to the Department of Homeland Security. Pursuant to the Homeland Security Act, authorities that were delegated to the Coast Guard remained intact during this transfer by operation of law. The authority was then delegated to the Commandant of the Coast Guard through Department of Homeland Security Delegation 0170.1. Since this proposed rule regulates fire prevention, protection, detection, and extinguishing equipment to ensure safety on deepwater ports, it falls within the scope of authority that has been transferred, delegated to, and exercised by the Coast Guard. The States may not regulate within this category of safety equipment. Therefore, the rule is consistent with the principles of federalism and preemption requirements in Executive Order 13132.

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, the Coast Guard recognizes the key role that State and local governments may have in making regulatory determinations. Additionally, for rules with implications and preemptive effect, Executive Order 13132 specifically directs agencies to consult with State and local governments during the rulemaking process.

Therefore, the Coast Guard invites State and local governments and their representative national organizations to indicate their desire for participation and consultation in this rulemaking process by submitting comments to this NPRM. In accordance with Executive Order 13132, the Coast Guard will provide a federalism impact statement to document: (1) The extent of the Coast Guard's consultation with State and local officials who submit comments to this proposed rule; (2) a summary of the nature of any concerns raised by State or local governments and the Coast Guard's position thereon; and (3) a statement of the extent to which the concerns of State and local officials have been met. We will also report to the Office of Management and Budget any written communications with the States.

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 proposed rule would not result in

such an expenditure, we do discuss the effects of this proposed rule elsewhere in this preamble.

G. Taking of Private Property

This proposed rule would 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 proposed 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

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

J. Indian Tribal Governments

This proposed rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it would 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

We have analyzed this proposed rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have 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. The Administrator of the Office of Information and Regulatory Affairs has not designated it as a significant energy action. Therefore, it does not require a Statement of Energy Effects under Executive Order 13211.

L. 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 the Office of Management and Budget, with an explanation of why using these standards would 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 proposed rule uses the following new voluntary consensus standards:

- Compressed Gas Association, Inc. (CGA) Pamphlet C-6, Standards for Visual Inspection of Steel Compressed Gas Cylinders, 2010.
- IEC 60092-504, Electrical Installations in Ships – Part 504: Special Features – Control and Instrumentation, 2001.

- NFPA 12A, Standard on Halon 1301 Fire Extinguishing Systems, 2009.
- NFPA 1964, Standard for Spray Nozzles, 2008.
- UL 8, Standard for Foam Fire Extinguishers, 2005.
- UL 154, Standard for Carbon-Dioxide Fire Extinguishers, 2005.
- UL 299, Standard for Dry Chemical Fire Extinguishers, 2002.
- UL 464, Standard for Audible Signaling Appliances, 2009.
- UL 626, Standard for 2½-Gallon Stored Pressure, Water-Type Fire Extinguishers, 2005.
- UL 711, Standard for Rating and Testing of Fire Extinguishers, 2004.
- UL 1480, Standard for Speakers for Fire Alarm, Emergency, and Commercial and Professional Use, 2003.
- UL 1971, Standard for Signaling Devices for the Hearing Impaired, 2002.
- UL 2129, Standard for Halocarbon Agent Fire Extinguishers, 2005.

This proposed rule also uses the following updated voluntary consensus standards:

- ANSI FM 3260, Approval Standard for Radiant Energy-Sensing Fire Detectors for Automatic Fire Alarm Signaling, 2000. Federal Specification ZZ-H-451G, Hose, Fire, Woven-Jacketed Rubber or Fabric-Lined, with Couplings, 1984.
- IMO Resolution A.753(18), Guidelines for the Application of Plastic Pipes on Ships, as amended by IMO Resolution MSC.313(88).
- IMO Resolution A.653(16), Recommendation on Improved Fire Test Procedures for Surface Flammability of Bulkhead, Ceiling and Deck Finish Materials.

- IMO Resolution MSC.307(88), Adoption of the International Code for the Application of Fire Test Procedures, 2010 (2010 FTP Code).
- IMO Resolution MSC.98(73), Adoption for the International Code for Fire Safety Systems (FSS Code) as amended by IMO Resolutions MSC.206(81), MSC.217(82), MSC.292(87), and MSC.311(88).
- International Convention for the Safety of Life at Sea (SOLAS), Consolidated Text of the International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1988: Article, Annexes and Certificates. (Incorporating all Amendments in Effect from 1 July 2009) (SOLAS).
- IMO Resolution A.1021(26), Code on Alarms and Indicators, 2009.
- NFPA 10, Standard for Portable Fire Extinguishers, 2010. NFPA 13 Standard for the Installation of Sprinkler Systems, 2010.
- NFPA 72, National Fire Alarm Code, 2010. UL 19, Standard for Lined Fire Hose and Hose Assemblies, 2001.
- UL 38, Standard for Manually Activated Signaling Boxes for Fire Alarm Systems, 2008.
- UL 268, Standard for Smoke Detectors for Fire Protective Signaling Systems, 2009.
- UL 521, Standard for Heat Detectors for Fire Protective Signaling Systems, 1999.
- UL 864, Standard for Control Units and Accessories for Fire Alarm Systems, 2003.

The proposed sections that reference these standards and the locations where these standards are available are listed in 33 CFR 140.7, 149.3, and 46 CFR 25.01-3,

27.102, 28.40, 31.01-2, 34.01-15, 56.01-2, 71.25-3, 76.01-2, 91.25-7, 95.01-2, 107.115, 108.101, 114.600, 125.180, 147.7, 161.002-1, 162.027-2, 162.028-1, 162.039-1, 162.163-2, , 164.105-2, 164.106-2, 164.107-2, 164.108-2, 164.109-2, 164.110-2, 164.111-2, 164.112-2, 164.117-2, 164.136-2, 164.137-2, 164.138-2, 164.139-2, 164.141-2, 164.142-2, 164.144-2, 164.146-2, 164.201-2, 164.207-2, 169.115, 175.600, 188.01-5, and 193.01-3.

If you disagree with our analysis of the voluntary consensus standards listed above or are aware of voluntary consensus standards that might apply but are not listed, please send a comment to the docket using one of the methods under ADDRESSES. In your comment, please explain why you disagree with our analysis and/or identify voluntary consensus standards we have not listed that might apply.

M. 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 proposes a revision of the standards for fire prevention, protection, detection, and extinguishing equipment regulations 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.

N. Environment

We have analyzed this proposed 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 made a preliminary determination that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. A preliminary environmental analysis checklist supporting this determination is available in the docket where indicated under the “Public Participation and Request for Comments” section of this preamble. This proposed rule involves:

Section 2.B.b, Figure 2.1 paragraph (34)(b),(d), and (e) of the Instruction, which covers regulations concerning delegating authority, manning, documents, admeasurements, inspection, and equipping of vessels; and paragraph 6(a) of the National Environmental Policy Act: Coast Guard Procedures for Categorical Exclusions (67 FR 48243, July 23, 2002), which covers regulations concerning vessel and related facility operation safety standards because this proposed rule pertains to regulations concerning delegating authority and the inspection and equipping of vessels (and related facilities), as well as vessel operation safety standards, equipment approval, and equipment carriage requirements. We seek any comments or information that may lead to the discovery of a significant environmental impact from this proposed rule.

List of Subjects

33 CFR Part 140

Continental shelf, Incorporation by reference, Investigations, Marine safety, Occupational safety and health, Penalties, Reporting and recordkeeping requirements.

33 CFR Part 145

Continental shelf, Fire prevention, Marine safety, Occupational safety and health.

33 CFR Part 148

Administrative practice and procedure, Environmental protection, Harbors, Petroleum.

33 CFR Part 149

Fire prevention, Harbors, Incorporation by reference, Marine safety, Navigation (water), Occupational safety and health, Oil pollution.

46 CFR Part 25

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

46 CFR Part 27

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

46 CFR Part 28

Alaska, Fire prevention, Fishing vessels, Incorporation by reference, Marine safety, Occupational safety and health, Reporting and recordkeeping requirements, Seamen.

46 CFR Part 30

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

46 CFR Part 31

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

46 CFR Part 32

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

46 CFR Part 34

Cargo vessels, Fire prevention, Incorporation by reference, Marine safety.

46 CFR Part 50

Reporting and recordkeeping requirements, Vessels.

46 CFR Part 56

Incorporation by reference, Reporting and recordkeeping requirements, Vessels.

46 CFR Part 70

Marine safety, Passenger vessels, Reporting and recordkeeping requirements.

46 CFR Part 71

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

46 CFR Part 72

Fire prevention, Marine safety, Occupational safety and health, Passenger vessels, Seamen.

46 CFR Part 76

Fire prevention, Incorporation by reference, Marine safety, Passenger vessels.

46 CFR Part 78

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

46 CFR Part 90

Cargo vessels, Marine safety.

46 CFR Part 91

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

46 CFR Part 92

Cargo vessels, Fire prevention, Incorporation by reference, Marine safety, Occupational safety and health, Seamen.

46 CFR Part 95

Cargo vessels, Fire prevention, Incorporation by reference, Marine safety.

46 CFR Part 107

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

46 CFR Part 108

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

46 CFR Part 113

Communications equipment, Fire prevention, Vessels.

46 CFR Part 114

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

46 CFR Part 116

Fire prevention, Marine safety, Passenger vessels, Seamen.

46 CFR Part 118

Fire prevention, Marine safety, Passenger vessels.

46 CFR Part 122

Marine safety, Passenger vessels, Penalties, Reporting and recordkeeping requirements.

46 CFR Part 125

Administrative practice and procedure, Cargo vessels, Hazardous materials transportation, Incorporation by reference, Marine safety, Seamen.

46 CFR Part 132

Cargo vessels, Fire prevention, Marine safety, Reporting and recordkeeping requirements.

46 CFR Part 147

Hazardous materials transportation, Incorporation by reference, Labeling, Marine safety, Packaging and containers, Reporting and recordkeeping requirements.

46 CFR Part 159

Business and industry, Incorporation by reference, Laboratories, Marine safety, Reporting and recordkeeping requirements.

46 CFR Part 160

Marine safety, Reporting and recordkeeping requirements.

46 CFR Part 161

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

46 CFR Part 162

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

46 CFR Part 164

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

46 CFR Part 167

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

46 CFR Part 169

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

46 CFR Part 175

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

46 CFR Part 176

Fire prevention, Marine safety, Passenger vessels, Reporting and recordkeeping requirements.

46 CFR Part 177

Marine safety, Passenger vessels, Reporting and recordkeeping requirements.

46 CFR Part 181

Fire prevention, Marine safety, Passenger vessels.

46 CFR Part 182

Marine safety, Passenger vessels.

46 CFR Part 185

Marine safety, Passenger vessels, Reporting and recordkeeping requirements.

46 CFR Part 188

Incorporation by reference, Marine safety, Oceanographic research vessels.

46 CFR Part 189

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

46 CFR Part 190

Fire prevention, Marine safety, Occupational safety and health, Oceanographic research vessels.

46 CFR Part 193

Fire prevention, Incorporation by reference, Marine safety, Oceanographic research vessels.

For the reasons discussed in the preamble, the Coast Guard proposes to amend 33 CFR parts 140, 145, 148, and 149, and 46 CFR parts 25, 27, 28, 30, 31, 32, 34, 50, 56, 70, 71, 72, 76, 78, 90, 91, 92, 95, 107, 108, 113, 114, 116, 118, 122, 125, 132, 147, 159, 160, 161, 162, 164, 167, 169, 175, 176, 177, 181, 182, 185, 188, 189, 190, and 193 as follows:

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

PART 140—GENERAL

1. The authority citation for part 140 continues to read as follows:

Authority: 43 U.S.C. 1333, 1348, 1350, 1356; Department of Homeland Security Delegation No. 0170.1.

§ 140.3 [Amended]

2. Amend § 140.3 by adding, at the end of the introductory paragraph, the sentence “The regulations in this subchapter (parts 140 through 147) have preemptive effect over state or local regulations in the same field.”.

3. Revise § 140.7 to read as follows:

§ 140.7 Incorporation by reference.

(a) Certain material is incorporated by reference into this subchapter with the approval of the Director of the Federal Register in accordance with 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed

below. It is also available for inspection 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

(b) American National Standards Institute (ANSI), 25 West 43rd Street, 4th Floor, New York, NY 10036, (212) 642-4900, www.ansi.org.

(1) ANSI A10.14–1975, Requirements for Safety Belts, Harnesses, Lanyards, Lifelines, and Drop Lines for Construction and Industrial Use, IBR approved for § 142.42.

(2) ANSI/UL 1123–1987, Standard for Marine Buoyant Devices, IBR approved for § 143.405.

(3) ANSI Z41–1983, American National Standard for Personal Protection-Protective Footwear, IBR approved for § 142.33.

(4) ANSI Z87.1–1979, Practice for Occupational and Educational Eye and Face Protection, IBR approved for § 142.27.

(5) ANSI Z88.2–1980, Practices for Respiratory Protection, IBR approved for § 142.39.

(6) ANSI Z89.1–1981, Safety Requirements for Industrial Head Protection, IBR approved for § 142.30.

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

(1) IMO Assembly Resolution A.414 (XI), Code for Construction and Equipment of Mobile Offshore Drilling Units, IBR approved for §§ 143.207 and 146.205.

(2) [Reserved]

(d) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, (“NFPA 10”), IBR approved for § 145.01(b).

(2) [Reserved]

PART 145—FIRE-FIGHTING EQUIPMENT

4. The authority citation for part 145 continues to read as follows:

Authority: Sec. 633, 63 Stat. 545; sec. 4, 67 Stat. 462; 14 U.S.C. 633; 43 U.S.C. 1333.

5. Revise § 145.01 to read as follows:

§ 145.01 Portable and semi-portable fire extinguishers.

(a) On all manned platforms and on all unmanned platforms where crews are continuously working on a 24-hour basis, Coast Guard-approved portable fire extinguishers and/or Coast Guard-approved semi-portable fire extinguishers must be installed and maintained. On all unmanned platforms where crews are not continuously working on a 24-hour basis, Coast Guard-approved portable fire extinguishers and/or Coast Guard-approved semi-portable fire extinguishers are required to be installed and maintained only when crews are working on them.

(b) Portable and semi-portable fire extinguishers must be inspected and maintained in accordance with NFPA 10 (incorporated by reference, see § 140.7) as amended here:

(1) Certification or licensing by the state or local jurisdiction as a fire extinguisher servicing agency will be accepted by the Coast Guard as meeting the personnel certification requirements of NFPA 10 for annual maintenance and recharging of extinguishers.

(2) Monthly inspections required by NFPA 10 may be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(3) Non-rechargeable or non-refillable fire extinguishers must be inspected and maintained in accordance with NFPA 10. However, the annual maintenance need not be conducted by a certified person and can be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(4) The owner or managing operator must provide satisfactory evidence of the required servicing to the marine inspector. If any of the equipment or records have not been properly maintained, a qualified servicing facility must perform the required inspections, maintenance procedures, and hydrostatic pressure tests. A tag issued by a qualified servicing organization, and attached to each extinguisher, may be accepted as evidence that the necessary maintenance procedures have been conducted.

§ 145.05 [Removed and Reserved]

6. Remove and reserve § 145.05.
7. Amend § 145.10 as follows:
 - a. Revise the section heading to read as follows;

b. In paragraphs (a) and (b), remove the word “shall” and add, in its place, the word “must”;

c. Add new paragraphs (c) and (d) to read as follows; and

d. Revise table 145.10(a) to read as follows:

§ 145.10 Location, number, and installation of fire extinguishers.

* * * * *

(c) Semi-portable extinguishers must be fitted with a suitable hose and nozzle, or other practicable means, so all of the space can be protected.

(d) Table 145.10(a) of this section indicates the minimum number and size of fire extinguishers required for each space listed. Extinguishers with larger numerical ratings or multiple letter designations may be used if the extinguishers meet the requirements of the table.

Table 145.10(a)—Portable and Semi-Portable Extinguishers

Space	Minimum required rating	Quantity and location
Safety Areas		
Communicating corridors.	2-A	1 in each main corridor not more than 150 ft apart. (May be located in stairways.)
Radio room.	20-B:C	1 in the vicinity of the exit.
Accommodations		
Sleeping accommodations.	2-A	1 in each sleeping accommodation space outfitted for 4 or more persons.
Service Spaces		
Galleys.	40-B:C	1 for each 2,500 sq ft of floor space or fraction thereof.
Storerooms.	2-A	1 for each 2,500 sq ft of floor space or fraction thereof. The extinguisher must be located in the vicinity of the exits, either inside or outside of spaces.

Machinery spaces with:		
Gas-fired boilers.	40-B	2 required.
	160-B	1 required. ¹
Oil-fired boilers.	40-B	2 required.
	160-B	2 required. ¹
Internal combustion or gas turbine engines.	40-B	1 for each engine. ²
Electric motors or generators of open type.	40-B:C	1 for each 2 motors or generators. ³

¹Not required where a fixed extinguishing system is installed.

²When the installation is on the weather deck or open to the atmosphere at all times, then one 40-B extinguisher for every three engines is allowable.

³Small electrical appliances, such as fans, are exempt.

8. Add § 145.15 to read as follows:

§ 145.15 Location and number of fire extinguishers required for vessels contracted for prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

(a) Vessels contracted for prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] must meet the following requirements:

(1) Previously installed extinguishers with extinguishing capacities smaller than what is required in table 145.10(a) of this part need not be replaced and may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

(2) All new equipment and installations must meet the applicable requirements in this part for new vessels.

(b) [Reserved]

PART 148—DEEPWATER PORTS: GENERAL

9. The authority citation for part 148 continues to read as follows:

Authority: 33 U.S.C. 1504; Department of Homeland Security Delegation No. 0170.1 (75).

10. Amend § 148.1 by adding, at the end of the introductory paragraph, a new sentence to read as follows:

§ 148.1 What is the purpose of this subchapter?

*** The regulations in this subchapter (parts 148 through 150) have preemptive effect over state or local regulations in the same field.

PART 149--DEEPWATER PORTS: DESIGN, CONSTRUCTION, AND EQUIPMENT

11. The authority citation for part 149 is revised to read as follows:

Authority: 33 U.S.C. 1504, 1509; Department of Homeland Security Delegation No. 0170.1 (75).

12. Add § 149.3 to read as follows:

§ 149.3 Incorporation by reference.

(a) Certain material is incorporated by reference into this subchapter with the approval of the Director of the **Federal Register** in accordance with 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue, SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition (“NFPA 10”), IBR approved for § 149.408(a) through (d).

(2) [Reserved]

13. Amend § 149.403 as follows:

a. Revise the section heading to read as follows; and

b. In paragraph (a), remove the word “supplemental” and add, in its place, the word “excess”.

§ 149.403 How can I request to use alternate or excess firefighting and fire prevention equipment or procedures?

* * * * *

14. Revise § 149.404 to read as follows:

§ 149.404 Can I use firefighting equipment that is not Coast Guard approved?

(a) A deepwater port may use firefighting equipment that is not Coast Guard approved as excess equipment, pursuant to § 149.403 of this subpart, if the equipment does not endanger the port or the persons aboard it in any way. This equipment must be listed and labeled by a nationally recognized testing laboratory (NRTL), as set forth in 29 CFR 1910.7, and it must be maintained in good working condition.

(b) Use of non-Coast Guard-approved fire detection systems may be acceptable as excess equipment provided that:

(1) Components are listed by an NRTL as defined in 46 CFR 161.002-2, and are designed, installed, tested, and maintained in accordance with an appropriate industry standard and the manufacturer's specific guidance;

(2) Installation conforms to the requirements of 46 CFR, subchapter J (Electrical Engineering), with specific regard to the hazardous location installation regulations in 46 CFR 111.105;

(3) Coast Guard plan review is completed for wiring plans; and

(4) The system and units remain functional as intended. To ensure this, marine inspectors may test and inspect the system.

§ 149.405 [Removed]

15. Remove § 149.405.

16. Revise § 149.408 to read as follows:

§ 149.408 What are the maintenance requirements for fire extinguishers?

(a) Portable and semi-portable extinguishers must be inspected and maintained in accordance with NFPA 10 (incorporated by reference, see § 149.3).

(b) Certification or licensing by the state or local jurisdiction as a fire extinguisher servicing agency will be accepted by the Coast Guard as meeting the personnel certification requirements of NFPA 10 for annual maintenance and recharging of extinguishers.

(c) Monthly inspections required by NFPA 10 may be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(d) Non-rechargeable or non-refillable extinguishers must be inspected and maintained in accordance with NFPA 10; however, the annual maintenance need not be

conducted by a certified person and can be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(e) The owner or managing operator must provide satisfactory evidence of the required servicing to the marine inspector. If any of the equipment or records have not been properly maintained, a qualified servicing facility must perform the required inspections, maintenance procedures, and hydrostatic pressure tests. A tag issued by a qualified servicing organization, and attached to each extinguisher, may be accepted as evidence that the necessary maintenance procedures have been conducted.

17. Revise § 149.409 to read as follows:

§ 149.409 How many fire extinguishers are needed and how should they be installed?

(a) Approved portable and semi-portable extinguishers must be installed in accordance with table 149.409 of this section.

(b) Semi-portable extinguishers must be located in the open so as to be readily seen.

(c) Semi-portable extinguishers must be fitted so that all portions of the space concerned may be covered.

(d) Table 149.409 of this section indicates the minimum required classification for each space listed. Extinguishers with larger numerical ratings or multiple letter designations may be used if the extinguishers meet the requirements of the table.

Table 149.409—Portable and Semi-Portable Extinguishers, Minimum Quantity and Location

Space	Classification	Minimum quantity and location
(a) Safety Areas:		
(1) Communicating	2-A	One in each main corridor or stairway

corridors		not more than 150 ft apart.
(2) Radio room	20-B:C	One outside or near each radio room exit.
(b) Accommodation Spaces:		
(1) Sleeping quarters	2-A	One in each sleeping space that fits more than four persons.
(c) Service Spaces:		
(1) Galleys	40-B:C	One for each 2,500 sq ft or fraction thereof, for hazards involved.
(2) Storerooms	2-A	One for each 2,500 sq ft or fraction thereof, located near each exit, either inside or outside the space.
(3) Paint room	40-B	One outside each paint room exit.
(d) Machinery Spaces:		
(1) Gas-fired boilers	40-B:C	Two.
	160-B	One. ¹
(2) Oil-fired boilers	40-B:C	Two.
	160-B	Two. ¹
(3) Internal combustion or gas turbine engines	40-B	One for each engine. ²
(4) Open electric motors and generators	40-B:C	One for each of two motors or generators. ³
(e) Helicopter Areas:		
(1) Helicopter landing decks	160-B	One at each access route.
(2) Helicopter fueling facility	160-B	One at each fuel transfer facility. ⁴

¹Not required if a fixed system is installed.

²If the engine is installed on a weather deck or is open to the atmosphere at all times, one 40-B extinguisher may be used for every three engines.

³Small electrical appliances, such as fans, are exempt.

⁴Not required if a fixed foam system is installed in accordance with 46 CFR 108.489.

(e) Semi-portable extinguishers must be fitted with a suitable hose and nozzle, or other practicable means, so that all areas of the space can be protected.

18. Revise § 149.410 to read as follows:

§ 149.410 Location and number of fire extinguishers required for vessels constructed prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

Vessels contracted for prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE], must meet the following requirements:

(a) Previously installed extinguishers with extinguishing capacities smaller than what is required in table 149.409 of this subpart need not be replaced and may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

(b) All new equipment and installations must meet the applicable requirements in this subpart for new vessels.

TITLE 46—SHIPPING

PART 25—REQUIREMENTS

19. The authority citation for part 25 continues to read as follows:

Authority: 33 U.S.C. 1903(b); 46 U.S.C. 3306, 4102, 4302; Department of Homeland Security Delegation No. 0170.1.

20. Revise § 25.01-3 to read as follows:

§ 25.01-3 Incorporation by reference.

(a) Certain material is incorporated by reference into this subchapter with the approval of the Director of the **Federal Register** in accordance with 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 the U.S. Coast

Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue, SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) American Boat and Yacht Council (ABYC), 613 Third Street, Suite 10, Annapolis, MD 21403, 410-990-4460, <http://www.abycinc.org>.

(1) Standard A-1–78, Marine LPG-Liquefied Petroleum Gas Systems, December 15, 1978, IBR approved for § 25.45–2.

(2) Standard A-22–78, Marine CNG-Compressed Natural Gas Systems, December 15, 1978, IBR approved for § 25.45–2.

(3) Standard A-16–97, Electric Navigation Lights, July 1997, IBR approved for § 25.10–3.

(c) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 302, Fire Protection Standard for Pleasure and Commercial Motor Craft, 1989, IBR approved for § 25.45–2.

(2) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, (“NFPA 10”), IBR approved for § 25.30-10(a) through (d).

(3) NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition, (“NFPA 13”), IBR approved for § 25.30-15(c).

(d) Society of Automotive Engineers (SAE), 400 Commonwealth Drive, Warrendale, PA 15096, 724-776-4841, <http://www.sae.org>.

(1) SAE J-1928, Devices Providing Backfire Flame Control for Gasoline Engines in Marine Applications, June 1989, IBR approved for § 25.35-1.

(2) [Reserved]

(e) Underwriters Laboratories (UL), 333 Pfingsten Road Northbrook, IL 60062-2096, 919-549-1400, www.ul.com.

(1) UL 1111, Marine Carburetor Flame Arrestors, June 1988, IBR approved for § 25.35-1.

(2) [Reserved]

21. Revise § 25.30-1 to read as follows:

§ 25.30-1 Applicability.

(a) The provisions of this subpart, with the exception of §§ 25.30-80 and 25.30-90 of this subpart, as applicable, apply to all vessels contracted for on or after [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

(b) Vessels contracted for prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] and after November 19, 1952, must meet the requirements of 46 CFR 25.30-80.

(c) Vessels contracted for prior to November 19, 1952, must meet the requirements of 46 CFR 25.30-90.

22. Revise § 25.30-10 to read as follows:

§ 25.30-10 Portable fire extinguishers and semi-portable fire extinguishing systems.

(a) Portable and semi-portable extinguishers must be inspected and maintained in accordance with NFPA 10 (incorporated by reference, see § 25.01-3).

(b) Certification or licensing by the state or local jurisdiction as a fire extinguisher servicing agency will be accepted by the Coast Guard as meeting the personnel certification requirements of NFPA 10 for annual maintenance and recharging of extinguishers.

(c) Monthly inspections required by NFPA 10 may be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(d) Non-rechargeable or non-refillable extinguishers must be inspected and maintained in accordance with NFPA 10; however, the annual maintenance need not be conducted by a certified person and can be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(e) The owner or managing operator must provide satisfactory evidence of the required servicing to the marine inspector. If any of the equipment or records have not been properly maintained, a qualified servicing facility must perform the required inspections, maintenance procedures, and hydrostatic pressure tests. A tag issued by a qualified servicing organization, and attached to each extinguisher, may be accepted as evidence that the necessary maintenance procedures have been conducted.

(f) Vaporizing-liquid type fire extinguishers containing carbon tetrachloride, chlorobromomethane, or other toxic vaporizing liquids are not acceptable as equipment required by this subchapter.

(g) Portable or semi-portable extinguishers, which are required on their name plates to be protected from freezing, must not be located where freezing temperatures may be expected.

(h) The use of dry chemical, stored pressure, fire extinguishers not fitted with pressure gauges or indicating devices, manufactured prior to January 1, 1965, may be permitted on motorboats and other vessels so long as such extinguishers are maintained in good and serviceable condition. The following maintenance and inspections are required for such extinguishers:

(1) When the date on the inspection record tag on the extinguishers shows that 6 months have elapsed since the last weight check ashore, then such extinguishers are no longer accepted as meeting required maintenance conditions until they are reweighed ashore, found to be in a serviceable condition, and within required weight conditions.

(2) If the weight of the container is 1/4 ounce less than that stamped on the container, it must be serviced.

(3) If the outer seal or seals (which indicate tampering or use when broken) are not intact, the boarding officer or marine inspector will inspect such extinguishers to see that the frangible disc in the neck of the container is intact; and if such disc is not intact, the container must be serviced.

(4) If there is evidence of damage, use, or leakage, such as dry chemical powder observed in the nozzle or elsewhere on the extinguisher, the extinguisher must be serviced or replaced.

(i) Dry chemical extinguishers, stored pressure extinguishers, and fire extinguishers without pressure gauges or indicating devices manufactured after January

1, 1965, cannot be labeled with the marine type label described in 46 CFR 162.028–4. These extinguishers manufactured after January 1, 1965, may be carried onboard motorboats or other vessels as excess equipment.

(j) Semi-portable extinguishers must be fitted with a suitable hose and nozzle, or other practicable means, so that all portions of the space concerned may be covered.

23. Amend § 25.30-15 to

- a. Revise the section heading;
- b. Designate the text as paragraph (a)
- c. Add paragraphs (b) and (c)

The changes to read as follows:

§ 25.30-15 Fixed fire extinguishing systems.

* * * * *

(b) If the system is a carbon-dioxide type, then it must be designed and installed in accordance with subpart 76.15 of part 76 of subchapter H (Passenger Vessels) of this chapter.

(b) If the system is an automatic sprinkler system then it must be designed and installed in accordance with Chapter 25 of NFPA 13 (incorporated by reference, see § 25.01-3).

24. Amend § 25.30-20 as follows:

- a. Remove the word “hand” wherever it appears.
- b. In paragraph (a)(1), remove the word “shall” and add, in its place, the word “must”; after the words “need not carry”, remove the word “such”; and after the words “fire extinguishers if the construction of”, remove the words “such motorboats” and add, in their place, the words “the boats”;

- c. In table 25.30-20(a)(1), remove the text “B-1” and add, in its place, the text “5-B”;
- d. In footnote 1 of table 25.30-20(a)(1), remove the text “B-11” and add, in its place, the text “20-B”; and remove the text “B-I” and add, in its place, the text “5-B”;
- e. In footnote 3 of figure 25.30-20(a1), remove the word “Close” and add, in its place, the word “Closed”.
- f. Add new paragraph (a)(3) to read as follows;
- g. In paragraph (b), remove the word “hand-portable” and add, in its place, the word “portable”.
- h. In paragraph (c)(1), remove the word “shall” and add, in its place, the word “must”;
- i. In Table 25.30-20(b)(1), remove the text “B-II” and add, in its place, the text “20-B”;
- j. In paragraph (c)(2), remove the word “shall” and add, in its place, the word “must”;
- k. In paragraph (c)(2)(i), remove the text “Type B-II” and add, in its place, the text “20-B”; and remove the word “shall” and add, in its place, the word “must”;
- l. In paragraph (c)(2)(ii), remove the text “Type B-III semiportable” and add, in its place, the text “160-B semi-portable”; remove the word “shall” wherever it appears and add, in its place, the word “must”; and remove the words “fire-extinguishing”, wherever they appear and add, in their place the words “fire extinguishing”;
- m. In paragraph (c)(3), remove the text “B-III” and add, in its place, the text “160-B”;

n. In paragraph (c)(4), remove the word “semiportable” and add, in its place, the word “semi-portable”; and after the words “fire extinguisher has wheels”, remove the words “and is not required by this section”;

o. Add paragraph (c)(5) to read as follows; and

p. In paragraph (d), remove the word “shall” wherever it appears and add, in its place, the word “must”.

§ 25.30-20 Fire extinguishing equipment required.

(a) * * *

(3) Table 25.30–20(a)(1) of this section indicates the minimum quantity and type of extinguisher to be carried. Extinguishers with larger numerical ratings or multiple letter designations may be used if the extinguishers meet the requirements of the table.

* * * * *

(c) * * *

(5) Table 25.30–20(b)(1) of this section indicates the minimum quantity and type of extinguisher to be carried. Extinguishers with larger numerical ratings or multiple letter designations may be used if the extinguishers meet the requirements of the table.

* * * * *

25. Add § 25.30-80 to read as follows:

§ 25.30-80 Location and number of fire extinguishers required for vessels constructed prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

Vessels contracted for prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE], must meet the following requirements:

(a) Previously installed extinguishers with extinguishing capacities smaller than what is required in tables 25.30–20(a)(1) and 25.30–20(b)(1) of this subpart need not be replaced and may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

(b) All new equipment and installations must meet the applicable requirements in this subpart for new vessels.

PART 27—TOWING VESSELS

26. The authority citation for part 27 continues to read as follows:

Authority: 46 U.S.C. 3306, 4102 (as amended by Pub. L. 104–324, 110 Stat. 3901); Department of Homeland Security Delegation No. 0170.1.

27. Revise § 27.102 to read as follows:

§ 27.102 Incorporation by reference.

(a) Certain material is incorporated by reference into this subchapter with the approval of the Director of the **Federal Register** in accordance with 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue, SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) American Boat and Yacht Council (ABYC), 613 Third Street, Suite 10, Annapolis, MD 21403, 410-990-4460, <http://www.abycinc.org>.

(1) H-25-1986, Portable Fuel Systems for Flammable Liquids, IBR approved for § 27.211.

(2) H-33-1989, Diesel Fuel Systems, IBR approved for § 27.211.

(c) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) ANSI/NFPA 302, Fire Protection Standard for Pleasure, and Commercial Motorcraft, 1998 Edition (“NFPA 302”), IBR approved for § 27.211.

(2) NFPA 750, Standard on Water Mist Fire Protection Systems, 2003 Edition (“NFPA 750”), IBR approved for § 27.101.

(3) NFPA 2001, Standard on Clean Agent Fire Extinguishing Systems, 2000 edition (“NFPA 2001”), IBR approved for § 27.101.

(d) Society of Automotive Engineers (SAE), 400 Commonwealth Drive, Warrendale, PA 15096–0001, 724-776-4841, <http://www.sae.org>.

(1) SAE J1475–1984, Hydraulic Hose Fitting for Marine Applications, IBR approved for § 27.211.

(2) SAE J1942–1989, Hose and Hose Assemblies for Marine Applications, IBR approved for § 27.211.

28. Add § 27.103 to read as follows:

§ 27.103 Preemption.

The regulations in this part have preemptive effect over State or local regulations in the same field.

29. Amend § 27.203 as follows:

- a. Redesignate the introductory paragraph and paragraphs (a),(b),and (c) as (a) and (a)(1) through (a)(3), respectively;
- b. Remove the word “fire-protection” wherever it appears and add, in its place, the words “fire protection”;
- c. In newly redesignated paragraph (a)(1), after the words “each detector must be listed by”, remove the words “an independent testing laboratory” and add, in their place, the words “a nationally recognized testing laboratory (NRTL), as defined in 46 CFR 161.002-2, for fire service”;
- d. Redesignate paragraph (d) introductory text as paragraph (a)(4) and redesignate paragraphs (d)(1) through (d)(5) as (a)(4)(i) through (a)(4)(v), respectively;
- e. Redesignate paragraphs (e) through (g) as paragraphs (a)(5) through (a)(7), respectively;
- f. In newly designated paragraph (a)(7), remove the words “Registered Professional Engineer” and add, in their place, the words “registered professional engineer”; and
- g. Add new paragraph (b) to read as follows:

§ 27.203 What are the requirements for fire detection on towing vessels?

* * * * *

(b) In spaces other than the engine room, non-approved fire detection systems may be acceptable as excess equipment provided that--

(1) Components are listed by a nationally recognized testing laboratory (NRTL) as set forth in 29 CFR 1910.7, and is designed, installed, tested, and maintained in

accordance with an appropriate industry standard and the manufacturer's specific guidance;

(2) Installation conforms to the requirements of 46 CFR, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105;

(3) Coast Guard plan review is completed for wiring plans; and

(4) The system and units remain functional as intended. To ensure this, marine inspectors may test and inspect the system during routine inspections.

§ 27.303 [Amended]

30. In § 27.303(b)(1), remove the text "B-V" and add, in its place, the text "160-B or 100 lb. CO₂ extinguisher, regardless of rating,".

§ 27.305 [Amended]

31. In § 27.305(a)(2), remove the text "B-V" and add, in its place, the text "160-B or 100 lb. CO₂ extinguisher, regardless of rating,".

PART 28--REQUIREMENTS FOR COMMERCIAL FISHING INDUSTRY VESSELS

32. The authority citation for part 28 continues to read as follows:

Authority: 46 U.S.C. 3316, 4502, 4505, 4506, 6104, 10603; Department of Homeland Security Delegation No. 0170.1.

33. Revise § 28.40 to read as follows:

§ 28.40 Incorporation by reference.

(a) Certain material is incorporated by reference into this subchapter with the approval of the Director of the **Federal Register** in accordance with 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG-ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, and is available from the sources listed below. It is also available for inspection 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

(b) American Boat and Yacht Council (ABYC), 613 Third Street, Suite 10, Annapolis, MD 21403, 410-990-4460, <http://www.abycinc.org>.

(1) E-1-1972, Bonding of Direct Current Systems, IBR approved for § 28.345.

(2) E-8-1985, Alternating Current (AC) Electrical Systems on Boats, IBR approved for § 28.345.

(3) E-9-1981, Recommended Practices and Standards Covering Direct Current (DC) Electrical Systems on Boats, IBR approved for § 28.345.

(4) H-2-1989, Ventilation of Boats Using Gasoline, IBR approved for § 28.340.

(5) H-25-1986, Portable Fuel Systems for Flammable Liquids, IBR approved for § 28.335.

(6) H-33-1989, Diesel Fuel Systems, IBR approved for § 28.335.

(7) P-1-1986, Installation of Exhaust Systems for Propulsion and Auxiliary Engines, IBR approved for § 28.380.

(c) ASTM International (formerly American Society for Testing and Materials), 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, 610-832-9500, <http://www.astm.org>.

(1) ASTM F 1321–92, Standard Guide for Conducting a Stability Test (Lightweight Survey and Inclining Experiment) to Determine the Light Ship Displacement and Centers of Gravity of a Vessel, IBR approved for § 28.535.

(2) [Reserved]

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

(1) Resolution A.658(16), Use and Fitting of Retro-Reflective Materials on Life-Saving Appliances, dated November 1989, IBR approved for § 28.135.

(2) [Reserved]

(e) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) ANSI/NFPA 70, National Electric Code, 1990 Edition (“NFPA 70”), IBR approved for §§ 28.350, 28.370, and 28.865.

(2) ANSI/NFPA 302, Fire Protection Standard for Pleasure and Commercial Motor Craft, 1989 Edition (“NFPA 302”), IBR approved for §§ 28.335, 28.340, and 28.345.

(3) ANSI/NFPA 17, Standard for Dry Chemical Extinguishing Systems, 1985 Edition (“NFPA 17”) IBR approved for § 28.330.

(4) ANSI/NFPA 17A, Standard for Wet Chemical Extinguishing Systems, 1986 Edition (“NFPA 17A”), IBR approved for § 28.330.

(f) Society of Automotive Engineers (SAE), 400 Commonwealth Drive, Warrendale, PA 15096, 724-776-4841, <http://www.sae.org>.

(1) SAE J 1475–1984, Hydraulic Hose Fitting for Marine Applications, IBR approved for § 28.880.

(2) SAE J 1942–1989, Hose and Hose Assemblies for Marine Applications, IBR approved for § 28.405.

(g) Underwriters Laboratories, Inc. (UL), 333 Pfingsten Road Northbrook, IL 60062-2096, 919-549-1400, www.ul.com.

(1) UL 217–1985, Single and Multiple Station Smoke Detectors, IBR approved for §§ 28.325 and 28.830.

(2) UL 710–1990, Exhaust Hoods for Commercial Cooking Equipment, IBR approved for § 28.330.

34. Revise § 28.155 to read as follows:

§ 28.155 Excess fire detection and protection equipment.

(a) Use of non-approved fire detection systems may be acceptable as excess equipment provided that--

(1) Components are listed and labeled by an independent, nationally recognized testing laboratory (NRTL) as set forth in 29 CFR 1910.7, and are designed, installed, tested, and maintained in accordance with an appropriate industry standard and the manufacturer’s specific guidance;

(2) Installation conforms to the requirements of 46 CFR, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105;

(3) Coast Guard plan review is completed for wiring plans; and

(4) The system and units remain functional as intended. To ensure this, marine inspectors may test and inspect the system during routine inspections.

(b) The regulations in this section have preemptive effect over State or local regulation within the same field.

35. Amend § 28.160 as follows:

a. Add new paragraphs (c), (d), and (e) to read as follows; and

b. Revise table 28.160 to read as follows:

§ 28.160 Portable fire extinguishers.

* * * * *

(c) Semi-portable extinguishers must be located in the open so as to be readily seen.

(d) Table 28.160 of this section indicates the minimum required classification for each space listed. Extinguishers with larger numerical ratings or multiple letter designations may be used if the extinguishers meet the requirements of the table.

(e) The regulations in this section have preemptive effect over State or local regulation within the same field.

Table 28.160—Portable Fire Extinguishers for Vessels 65 Feet (19.8 Meters) or More in Length

Space	Minimum required	Quantity and location
-------	------------------	-----------------------

	rating	
Safety areas, communicating corridors.	2-A	1 in each main corridor not more than 150 ft (45.7m) apart. (May be located in stairways.)
Pilothouse.	20-B:C	2 in the vicinity of the exit.
Service spaces, galleys.	40-B:C	1 for each 2,500 sq ft (232.2 sq m) or fraction thereof suitable for hazards involved.
Paint lockers.	40-B	1 outside space in the vicinity of the exit.
Accessible baggage and storerooms.	2-A	1 for each 2,500 sq ft (232.2 sq m) or fraction thereof located in the vicinity of the exits, either inside or outside the spaces.
Workshops and similar spaces.	2-A	1 outside the space in the vicinity of the exit.
Machinery spaces; Internal combustion propelling machinery	40-B:C	1 for each 1,000 brake horsepower or fraction thereof but not fewer than 2 or more than 6.
Electric propulsion motors or generator unit of open type	40-B:C	1 for each propulsion motor generator unit.
Auxiliary spaces	40-B:C	1 outside the space in the vicinity of the exit.
Internal combustion machinery	40-B:C	1 outside the space in the vicinity of the exit.
Electric emergency motors or generators	40-B:C	1 outside the space in the vicinity of the exit.

36. Amend § 28.325 as follows:

a. In the section heading, after the words “Fire detection”, add the words “and alarm”;

b. In paragraph (a), remove the words “Part 76, subpart 76.33”, and add, in their place, the words “part 76”;

c. In paragraph (b), after the text “must meet UL 217”, add the text “(incorporated by reference, see § 28.40)”; and

d. Add paragraph (c) to read as follows:

§ 28.325 Fire detection and alarm systems.

* * * * *

(c) The regulations in this section have preemptive effect over State or local regulation within the same field.

37. Amend § 28.830 as follows:

a. Revise the section heading as follows;

b. In paragraph (a), after the words “or a smoke actuated”, remove the words “fire detecting” and add, in their place, the words “fire detection”; and after the words “in accordance with”, remove the text “Sec. 76.33 of this chapter” and add, in its place, the text “46 CFR part 76”; and

c. In paragraph (b), after the words “must meet UL 217”, add the words “(incorporated by reference, see § 28.40)”.

d. Add paragraph (c) to read as follows:

§ 28.830 Fire detection and alarm systems.

* * * * *

(c) The regulations in this section have preemptive effect over State or local regulation within the same field.

PART 30-GENERAL PROVISIONS

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

Authority: 46 U.S.C. 2103, 3306, 3703; Pub. L. 103–206, 107 Stat. 2439; 49 U.S.C. 5103, 5106; Department of Homeland Security Delegation No. 0170.1; Section

30.01–2 also issued under the authority of 44 U.S.C. 3507; Section 30.01–05 also issued under the authority of Sec. 4109, Pub. L. 101–380, 104 Stat. 515.

39. Amend §30.01-1 by adding a sentence to the end of paragraph (a) to read as follows:

§ 30.01-1 Purpose of regulations.

* * * The regulations in this subchapter (parts 30, 31, 32, 34, 35, 36, 38 and 39) have preemptive effect over state or local regulations in the same fields.

PART 31—INSPECTION AND CERTIFICATION

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

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 2103, 3205, 3306, 3307, 3703; 46 U.S.C. Chapter 701; 49 U.S.C. 5103, 5106; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; Department of Homeland Security Delegation No. 0170.1. Section 31.10–21 also issued under the authority of Sect. 4109, Pub. L. 101–380, 104 Stat. 515.

41. Add new § 31.01-2 to read as follows:

§ 31.01-2 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue, SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) National Fire Protection Association (NFPA), Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition (“NFPA 10”), IBR approved for § 31.10-18(a).

(2) [Reserved]

42. Revise § 31.10-18 to read as follows:

§ 31.10-18 Firefighting equipment: General—TB/ALL.

(a) The owner, master, or person-in-charge of a tank vessel must ensure that portable and semi-portable extinguishers are inspected and maintained in accordance with NFPA 10 (incorporated by reference, see § 31.01-2) as amended in paragraphs (a)(1) through (a)(4) of this section.

(1) Certification or licensing by the state or local jurisdiction as a fire extinguisher servicing agency will be accepted by the Coast Guard as meeting the personnel certification requirements of NFPA 10 for annual maintenance and recharging of extinguishers.

(2) Monthly inspections required by NFPA 10 may be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(3) Non-rechargeable or non-refillable extinguishers must be inspected and maintained in accordance with NFPA 10; however, the annual maintenance need not be

conducted by a certified person and can be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(4) The owner or managing operator must provide satisfactory evidence of the required servicing to the marine inspector. If any of the equipment or records have not been properly maintained, a qualified servicing facility must perform the required inspections, maintenance procedures, and hydrostatic pressure tests. A tag issued by a qualified servicing organization, and attached to each extinguisher, may be accepted as evidence that the necessary maintenance procedures have been conducted.

(b) The owner, master, or person-in-charge of a tank vessel must ensure that the following tests and inspections of fixed fire extinguishing equipment are made:

Table 31.10–18(b)—Testing of Fixed Fire Extinguishing Systems

Type system	Test
Foam	Systems utilizing a soda solution must have the solution replaced. In all cases, ascertain that the powder is not caked.
Carbon dioxide	Weigh cylinders. Recharge if weight loss exceeds 10 percent of weight of charge. ¹

¹Cylinders must be tested and marked, and all flexible connections on fixed carbon dioxide and halon extinguishers must be tested or renewed, as required by §§ 147.60 and 147.65 of this chapter.

(c) Deck foam systems must be tested at the inspection for certification and the periodic inspection by discharging foam for approximately 15 seconds from any nozzle designated by the marine inspector. It is not required to deliver foam from all foam outlets, but all lines and nozzles must be tested with water to prove they are clear of

obstruction. Before the inspection for certification and periodic inspection of deck foam systems utilizing a mechanical foam system, a representative sample of the foam concentrate must be submitted to the manufacturer who will issue a certificate indicating gravity, pH, percentage of water dilution, and solid content.

(d) At each inspection for certification, periodic inspection, and at such other times as considered necessary, the inspector must determine that all fire extinguishing equipment is in suitable condition and that the tests and inspections required by paragraphs (b) through (g) of this section have been conducted. In addition, the marine inspector may require additional tests to determine the condition of the equipment.

(e) On all fire extinguishing systems, the piping, controls, valves, and alarms must be checked by the marine inspector to determine that the system is in good operating condition.

(f) The fire main system must be operated and the pressure checked at the most remote and highest outlets by the marine inspector. All firehoses must be exposed to a test pressure equivalent to the maximum pressure to which they may be subjected, but not less than 100 psi. The marine inspector must check that the hose couplings are securely fastened in accordance with the regulations of this subchapter.

(g) Steam smothering lines must be tested with at least 50 psi of air pressure or by blowing steam through the lines at the working pressure. A survey must be conducted for detecting corrosion and defects.

PART 32—SPECIAL EQUIPMENT, MACHINERY, AND HULL REQUIREMENTS

43. The authority citation for part 32 continues to read as follows:

Authority: 46 U.S.C. 2103, 3306, 3703, 3719; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1; Subpart 32.59 also issued under the authority of Sec. 4109, Pub. L. 101-380, 104 Stat. 515.

44. Revise § 32.56-1, paragraph (b) to read as follows:

§ 32.56-1 Application—T/ALL.

* * * * *

(b) Vessels meeting the structural fire protection requirements of SOLAS, Chapter II-2, Regulations 5, 6, 8, 9, and 11, may be considered equivalent to the provisions of this subpart.

PART 34—FIREFIGHTING EQUIPMENT

45. The authority citation for part 34 continues to read as follows:

Authority: 46 U.S.C. 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

46. Amend § 34.01-5 as follows:

a. In paragraph (a), remove the word “shall” and add, in its place, the word “must”; and

b. Add paragraph (b) to read as follows:

§ 34.01-5 Equipment installed but not required—TB/ALL.

* * * * *

(b) Use of non-approved fire detection systems may be acceptable as excess equipment provided that:

(1) Components are listed and labeled by an independent, nationally recognized testing laboratory (NRTL) as set forth in 29 CFR 1910.7, and are designed, installed,

tested, and maintained in accordance with an appropriate industry standard and the manufacturer's specific guidance;

(2) Installation conforms to the requirements of 46 CFR, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105;

(3) Coast Guard plan review is completed for wiring plans; and

(4) The system and units remain functional as intended. To ensure this, marine inspectors may test and inspect the system during routine inspections.

47. Revise § 34.01-15 to read as follows:

§ 34.01-15 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG-ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, and is available from the sources listed below. It is also available for inspection 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

(b) ASTM International (formerly American Society for Testing and Materials),
100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, 610-832-9585,
http://www.astm.org.

(1) ASTM F 1121–87 (Reapproved 1993), Standard Specification for
International Shore Connections for Marine Fire Applications, 1987, IBR approved for §
34.10–15.

(2) [Reserved]

(c) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy,
MA 02169-7471, 617-770-3000, *http://www.nfpa.org*.

(1) NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition
("NFPA 13"), IBR approved for § 34.30–1.

(2) [Reserved]

48. Revise § 34.30-1 to read as follows:

§ 34.30-1 Application—TB/ALL.

Automatic sprinkler systems must comply with Chapter 25 of NFPA 13
(Incorporated by reference, see §34.01-15).

49. Revise § 34.50-1 to read as follows:

§ 34.50-1 Application—TB/ALL.

(a) The provisions of this subpart, with the exception of §§ 34.50–80 and 34.50–
90, must apply to all vessels contracted for on or after [30 DAYS AFTER DATE OF
PUBLICATION OF FINAL RULE].

(b) Vessels contracted for prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] but on or after January 1, 1962, must meet the requirements of § 34.50–80 of this subpart.

(c) All vessels contracted for prior to January 1, 1962, must meet the requirements of § 34.50–90 of this subpart.

§ 34.50-05 [Removed].

50. Remove § 34.50-05.

51. Revise § 34.50-10 to read as follows:

§ 34.50-10 Location, number, and installation of fire extinguishers—TB/ALL.

(a) Approved portable and semi-portable extinguishers must be installed in accordance with table 34.50–10(a) of this section. The location of the equipment must be, in the opinion of the Officer in Charge, Marine Inspection, convenient in case of emergency. Where special circumstances exist, not covered by table 34.50–10(a) of this section, the Officer in Charge, Marine Inspection, may require additional equipment as deemed necessary for the proper protection of the vessel.

(b) For additional portable extinguishers as a substitute for sand, see § 34.55–10 of this part.

(c) Semi-portable extinguishers must be located in the open so as to be readily seen.

(d) If portable extinguishers are not located in the open or behind glass so that they may be readily seen they may be placed in enclosures together with the firehose, provided such enclosures are marked as required by § 35.40–25 of this subchapter.

(e) Portable extinguishers and their stations must be numbered in accordance with § 35.40–25 of this subchapter.

(f) Portable or semi-portable extinguishers which are required by their nameplates to be protected from freezing must not be located where freezing temperatures may be expected.

(g) Semi-portable extinguishers must be fitted with a suitable hose and nozzle, or other practicable means, so that all portions of the space concerned can be protected.

(h) Table 34.50-10(a) of this section indicates the minimum required number and type for each space listed. Extinguishers with larger numerical ratings or multiple letter designations may be used if the extinguishers meet the requirements of the table.

Table 34.50–10(a)—Portable and Semi-portable Extinguishers

Tank ships		Area	Tank barges	
Quantity and location	Minimum required rating		Minimum required rating	Quantity and location
<i>Safety Areas</i>				
1 required.	20-B:C	Wheelhouse and chartroom area.		None required.
1 required in the vicinity of the exit.	20-B:C ¹	Radio room.		None required.
<i>Accommodation Areas</i>				
1 required in each main passageway on each deck, conveniently located, and so that no room is more than 75 ft from an extinguisher.	2-A	Staterooms, toilet spaces, public spaces, offices, etc., and associated lockers, storerooms, and pantries.	2-A	1 required in the vicinity of the exit.
<i>Service Areas</i>				
1 required for each 2,500 sq ft or fraction thereof.	40-B:C	Galleys.	40-B:C	1 required, suitable for the hazard involved.
1 required for each 2,500 sq ft or fraction thereof.	40-A:B	Stores areas, including paint and lamp rooms.		None required.
<i>Machinery Area</i> ²				
2 required. ³	40-B	Spaces containing oil fired boilers, either main or	40-B	1 required. ¹²

		auxiliary, or any fuel oil units subject to the discharge pressure of the fuel oil service pump.		
	and			
1 required.	160-B ⁴			
1 required for each 1,000 brake horsepower; not less than 2, not more than 6. ⁵	40-B	Spaces containing internal combustion or gas turbine propulsion machinery.		None required.
	and			
1 required. ^{6,7}	120-B			
1 required in the vicinity of the exit. ⁷	40-B	Auxiliary spaces containing internal combustion or gas turbine units.	40-B	1 required in the vicinity of the exit. ^{7,9,12}
1 required in the vicinity of the exit. ⁸	40-B:C	Auxiliary spaces containing emergency generators.		None required.
Cargo Areas				
1 required in the lower pumproom.	40-B	Pumprooms	40-B	1 required in the vicinity of the exit. ^{9,12}
None required.		Cargo tank area	40-B	2 required. ^{10,12, 13}
			160-B	1 required. ^{9,11}
Spare Units				
(RANGE FROM 50-10) percent of required units rounded up.	2-A		2-A	(RANGE FROM 50-10) percent of required units rounded up.
(RANGE FROM 50-10) percent of required units rounded up.	40-B:C		40-B:C	(RANGE FROM 50-10) percent of required units rounded up.

¹Vessels not on an international voyage may substitute two 5-B:C rated extinguishers.

²A 40-B:C must be immediately available to the service generator and main switchboard areas, and further, a 40-B:C must be conveniently located not more than 50 feet walking distance from any point in all main machinery operating spaces. These extinguishers need *not* be in addition to other required extinguishers.

³Vessels of fewer than 1,000 GT require 1.

⁴Vessels of fewer than 1,000 GT may substitute 1 120-B:C.

⁵Only 1 required for vessels under 65 ft in length.

⁶If an oil-burning donkey boiler is fitted in the space, the 160-B:C previously required for the protection of the boiler may be substituted. Not required where a fixed carbon dioxide system is installed.

⁷Not required on vessels of fewer than 300 GT if the fuel has a flashpoint higher than 110 °F.

⁸Not required on vessels of fewer than 300 GT.

⁹Not required if fixed system installed.

¹⁰If no cargo pump on barge, only one 40-B:C required.

¹¹Manned barges of 100 GT and over only.

¹²Not required on unmanned barges except during the transfer of cargo, or operation of barge machinery or boilers when the barge is not underway.

¹³An extinguisher brought on to unmanned barges during the transfer of cargo, or operation of barge machinery or boilers does not have to be Coast Guard approved, provided it is approved by a nationally recognized testing laboratory (NRTL) in accordance with 29 CFR 1910.7.

§ 34.50-15 [Removed]

52. Remove § 34.50-15.

53. Add § 34.50-80 to read as follows:

§ 34.50-80 Location and number of fire extinguishers required for vessels constructed prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] TB/ALL.

Vessels contracted for prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE], must meet the following requirements:

(a) Previously installed extinguishers with extinguishing capacities smaller than as required in table 34.50–10(a) need not be replaced and may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

(b) All new equipment and installations must meet the applicable requirements in this subpart for new vessels.

PART 50—GENERAL PROVISIONS

54. The authority citation for part 50 continues to read as follows:

Authority: 43 U.S.C. 1333; 46 U.S.C. 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1; Section 50.01–20 also issued under the authority of 44 U.S.C. 3507.

55. Amend § 50.01-15 to add new paragraph (c) to read as follows:

§ 50.01-15 Scope of regulations.

* * * * *

(c) The regulations in this subchapter (parts 50, 52, 53, 54, 56, 57, 58, 59, and 61 through 64) have preemptive effect over state or local regulations in the same field.

PART 56--PIPING SYSTEMS AND APPURTENANCES

56. The authority citation for part 56 continues to read as follows:

Authority: 33 U.S.C. 1321(j), 1509; 43 U.S.C. 1333; 46 U.S.C. 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; Department of Homeland Security Delegation No. 0170.1.

57. Revise § 56.01-2 to read as follows:

§ 56.01-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subchapter with the approval of the Director of the **Federal Register** in accordance with 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG-ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, and is available from the sources listed below. It is also available for inspection 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

(b) American National Standards Institute (ANSI), 25 West 43rd Street, New York, NY 10036, 212-642-4900, <http://www.ansi.org>.

(1) ANSI/ASME B1.1, 1982 Unified Inch Screw Threads (UN and UNR Thread Form), 1982 (“ANSI/ASME B1.1”), IBR approved for §§ 56.25–20 and 56.60–1.

(2) ANSI/ASME B1.20.1–1983 Pipe Threads, General Purpose (Inch), 1983 (“ANSI/ASME B1.20.1”), IBR approved for § 56.60–1.

(3) ANSI/ASME B1.20.3–1976 (Reaffirmed 1982) Dryseal Pipe Threads (Inch), 1976 (“ANSI/ASME B1.20.3”), IBR approved for § 56.60–1.

(4) ANSI/ASME B16.15–1985 [Reaffirmed 1994] Cast Bronze Threaded Fittings, Classes 125 and 250, 1985 (“ANSI/ASME B16.15”), IBR approved for § 56.60–1.

(c) American Petroleum Institute (API), 1220 L Street, NW, Washington, DC 20005–4070, 202-682-8000, <http://www.api.org>.

(1) API Standard 607, Fire Test for Soft-Seated Quarter-Turn Valves, Manufacturing, Distribution and Marketing Department, Fourth Edition, 1993 (“API 607”), IBR approved for § 56.20–15.

(2) [Reserved]

(d) American Society of Mechanical Engineers (ASME) International, Three Park Avenue, New York, NY 10016–5990, 800-843-2763, <http://www.asme.org>.

(1) 2001 ASME Boiler and Pressure Vessel Code, Section I, Rules for Construction of Power Boilers, July 1, 2001 (“Section I of the ASME Boiler and Pressure Vessel Code”), IBR approved for §§ 56.15–1, 56.15–5, 56.20–1, 56.60–1, 56.70–15, and 56.95–10.

(2) ASME Boiler and Pressure Vessel Code, Section VIII, Division 1, Rules for Construction of Pressure Vessels, 1998 with 1999 and 2000 addenda (“Section VIII of

the ASME Boiler and Pressure Vessel Code”), IBR approved for §§ 56.15–1, 56.15–5, 56.20–1, 56.25–5, 56.30–10, 56.30–30, 56.60–1, 56.60–2, 56.60–15, and 56.95–10.

(3) 1998 ASME Boiler & Pressure Vessel Code, Section IX, Welding and Brazing Qualifications, 1998 (“Section IX of the ASME Boiler and Pressure Vessel Code”), IBR approved for §§ 56.70–5, 56.70–20, and 56.75–20.

(4) ASME B16.1–1998 Cast Iron Pipe Flanges and Flanged Fittings, Classes 25, 125, 250 (1998) (“ASME B16.1”), IBR approved for §§ 56.60–1 and 56.60–10.

(5) ASME B16.3–1998 Malleable Iron Threaded Fittings, Classes 150 and 300, 1998 (“ASME B16.3”), IBR approved for § 56.60–1.

(6) ASME B16.4–1998 Gray Iron Threaded Fittings, Classes 125 and 250, 1998 (“ASME B16.4”), IBR approved for § 56.60–1.

(7) ASME B16.5–2003 Pipe Flanges and Flanged Fittings NPS 1/2 through NPS 24 Metric/Inch Standard, 2003 (“ASME B16.5”), IBR approved for §§ 56.25–20, 56.30–10, and 56.60–1.

(8) ASME B16.9–2003 Factory-Made Wrought Steel Buttwelding Fittings, 2003 (“ASME B16.9”), IBR approved for § 56.60–1.

(9) ASME B16.10–2000 Face-to-Face and End-to-End Dimensions of Valves, 2000 (“ASME B16.10”), IBR approved for § 56.60–1.

(10) ASME B16.11–2001 Forged Fittings, Socket-Welding and Threaded, 2001 (“ASME B16.11”), IBR approved for §§ 56.30–5; 56.60–1.

(11) ASME B16.14–1991 Ferrous Pipe Plugs, Bushings, and Locknuts with Pipe Threads, 1991 (“ASME B16.14”), IBR approved for § 56.60–1.

(12) ASME B16.18–2001 Cast Copper Alloy Solder Joint Pressure Fittings, 2001 (“ASME B16.18”), IBR approved for § 56.60–1.

(13) ASME B16.20–1998 (Revision of ASME B16.20 1993), Metallic Gaskets for Pipe Flanges: Ring-Joint, Spiral-Wound, and Jacketed, 1998 (“ASME B16.20”), IBR approved for § 56.60–1.

(14) ASME B16.21–2005 (Revision of ASME B16.21–1992) Nonmetallic Flat Gaskets for Pipe Flanges, May 31, 2005 (“ASME B16.21”), IBR approved for § 56.60–1.

(15) ASME B16.22–2001 (Revision of ASME B16.22–1995) Wrought Copper and Copper Alloy Solder Joint Pressure Fittings, Aug. 9, 2002 (“ASME B16.22”), IBR approved for § 56.60–1.

(16) ASME B16.23–2002 (Revision of ASME B16.23–1992) Cast Copper Alloy Solder Joint Drainage Fittings: DWV, Nov. 8, 2002 (“ASME B16.23”), IBR approved for § 56.60–1.

(17) ASME B16.24–2001 Cast Copper Alloy Pipe Flanges and Flanged Fittings, Class 150, 300, 400, 600, 900, 1500, and 2500, 2001 (“ASME B16.24”), IBR approved for § 56.60–1.

(18) ASME B16.25–2003 Buttwelding Ends, 2003 (“ASME B16.25”), IBR approved for §§ 56.30–5, 56.60–1, and 56.70–10.

(19) ASME B16.28–1994 Wrought Steel Buttwelding Short Radius Elbows and Returns, 1994 (“ASME B16.28”), IBR approved for § 56.60–1.

(20) ASME B16.29–2007 (Revision of ASME B16.29–2001), Wrought Copper and Wrought Copper Alloy Solder-Joint Drainage Fittings—DWV, Aug. 20, 2007 (“ASME B16.29”), IBR approved for § 56.60–1.

- (21) ASME B16.34–1996 Valves—Flanged, Threaded, and Welding End, 1996 (“ASME B16.34”), IBR approved for §§ 56.20–1 and 56.60–1.
- (22) ASME B16.42–1998 Ductile Iron Pipe Flanges and Flanged Fittings, Classes 150 and 300, 1998 (“ASME B16.42”), IBR approved for § 56.60–1.
- (23) ASME B18.2.1–1996 Square and Hex Bolts and Screws (Inch Series), 1996 (“ASME B18.2.1”), IBR approved for §§ 56.25–20 and 56.60–1.
- (24) ASME/ANSI B18.2.2–1987 Square and Hex Nuts (Inch Series), 1987 (“ASME/ANSI B18.2.2”), IBR approved for §§ 56.25–20 and 56.60–1.
- (25) ASME B31.1–2001 Power Piping ASME Code for Pressure Piping, B31, 2001 (“ASME B31.1”), IBR approved for §§ 56.01–3, 56.01–5, 56.07–5, 56.07–10, 56.10–1, 56.10–5, 56.15–1, 56.15–5, 56.20–1, 56.25–7, 56.30–1, 56.30–5, 56.30–10, 56.30–20, 56.35–1, 56.50–1, 56.50–15, 56.50–40, 56.50–65, 56.50–70, 56.50–97, 56.60–1, 56.65–1, 56.70–10, 56.70–15, 56.80–5, 56.80–15, 56.95–1, 56.95–10, and 56.97–1.
- (26) ASME B36.10M–2004 Welded and Seamless Wrought Steel Pipe, 2004 (“ASME B36.10M”), IBR approved for §§ 56.07–5, 56.30–20, and 56.60–1.
- (27) ASME B36.19M–2004 Stainless Steel Pipe, 2004 (“ASME B36.19M”), IBR approved for §§ 56.07–5 and 56.60–1.
- (28) ASME SA–675, Specification for Steel Bars, Carbon, Hot-Wrought, Special Quality, Mechanical Properties, 1998 (“ASME SA–675”), IBR approved for § 56.60–2.
- (e) ASTM International (formerly American Society for Testing and Materials), 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, 610-832-9500, <http://www.astm.org>.

- (1) ASTM A 36/A 36M–97a, Standard Specification for Carbon Structural Steel (“ASTM A 36”), IBR approved for § 56.30–10.
- (2) ASTM A 47–90, Standard Specification for Ferritic Malleable Iron Castings, 1995 (“ASTM A 47”), IBR approved for § 56.60–1.
- (3) ASTM A 53–98, Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless (“ASTM Specification A 53” or “ASTM A 53”), IBR approved for § 56.10–5, 56.60–1.
- (4) ASTM A 106–95, Standard Specification for Seamless Carbon Steel Pipe for High-Temperature Service (“ASTM A 106”), IBR approved for § 56.60–1.
- (5) ASTM A 126–95, Standard Specification for Gray Iron Castings for Valves, Flanges, and Pipe Fittings (“ASTM A 126”), IBR approved for § 56.60–1.
- (6) ASTM A 134–96, Standard Specification for Pipe, Steel, Electric-Fusion (Arc)-Welded (Sizes NPS 16 and Over) (“ASTM A 134”), IBR approved for § 56.60–1.
- (7) ASTM A 135–97c, Standard Specification for Electric-Resistance-Welded Steel Pipe (“ASTM A 135”), IBR approved for § 56.60–1.
- (8) ASTM A 139–96, Standard Specification for Electric-Fusion (Arc)-Welded Steel Pipe (NPS 4 and Over) (“ASTM A 139”), IBR approved for § 56.60–1.
- (9) ASTM A 178/A 178M–95, Standard Specification for Electric-Resistance-Welded Carbon Steel and Carbon-Manganese Steel Boiler and Superheater Tubes (“ASTM A 178”), IBR approved for § 56.60–1.
- (10) ASTM A 179/A 179M–90a, Standard Specification for Seamless Cold-Drawn Low-Carbon Steel Heat-Exchanger and Condenser Tubes, 1996 (“ASTM A 179”), IBR approved for § 56.60–1.

(11) ASTM A 182/A 182M-97c, Standard Specification for Forged or Rolled Alloy-Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service (“ASTM A-182”), IBR approved for § 56.50-105.

(12) ASTM A 192/A 192M-91, Standard Specification for Seamless Carbon Steel Boiler Tubes for High-Pressure Service, 1996 (“ASTM A 192”), IBR approved for § 56.60-1.

(13) ASTM A 194/A 194M-98b, Standard Specification for Carbon and Alloy Steel Nuts for Bolts for High Pressure or High Temperature Service, or Both (“ASTM A-194”), IBR approved for § 56.50-105.

(14) ASTM A 197-87, Standard Specification for Cupola Malleable Iron, 1992 (“ASTM A 197”), IBR approved for § 56.60-1.

(15) ASTM A 210/A 210M-96, Standard Specification for Seamless Medium-Carbon Steel Boiler and Superheater Tubes (“ASTM A 210”), IBR approved for § 56.60-1.

(16) ASTM A 213/A 213M-95a, Standard Specification for Seamless Ferritic and Austenitic Alloy-Steel Boiler, Superheater, and Heat-Exchanger Tubes (“ASTM A 213”), IBR approved for § 56.60-1.

(17) ASTM A 214/A 214M-96, Standard Specification for Electric-Resistance-Welded Carbon Steel Heat-Exchanger and Condenser Tubes (“ASTM A 214”), IBR approved for § 56.60-1.

(18) ASTM A 226/A 226M-95, Standard Specification for Electric-Resistance-Welded Carbon Steel Boiler and Superheater Tubes for High-Pressure Service (“ASTM A 226”), IBR approved for § 56.60-1.

(19) ASTM A 234/A 234M-97, Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service (“ASTM A 234”), IBR approved for § 56.60-1.

(20) ASTM A 249/A 249M-96a, Standard Specification for Welded Austenitic Steel Boiler, Superheater, Heat-Exchanger, and Condenser Tubes (“ASTM A 249”), IBR approved for § 56.60-1.

(21) ASTM A 268/A 268M-96, Standard Specification for Seamless and Welded Ferritic and Martensitic Stainless Steel Tubing for General Service (“ASTM A 268”), IBR approved for § 56.60-1.

(22) ASTM A 276-98, Standard Specification for Stainless Steel Bars and Shapes (“ASTM A 276”), IBR approved for § 56.60-2.

(23) ASTM A 307-97, Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength (“ASTM A 307”), IBR approved for § 56.25-20.

(24) ASTM A 312/A 312M-95a, Standard Specification for Seamless and Welded Austenitic Stainless Steel Pipes (“ASTM A-312” or “ASTM A 312”), IBR approved for §§ 56.50-105 and 56.60-1.

(25) ASTM A 320/A 320M-97, Standard Specification for Alloy/Steel Bolting Materials for Low-Temperature Service (“ASTM A-320”), IBR approved for § 56.50-105.

(26) ASTM A 333/A 333M-94, Standard Specification for Seamless and Welded Steel Pipe for Low-Temperature Service (“ASTM A-333” or “ASTM A 333”), IBR approved for §§ 56.50-105 and 56.60-1.

(27) ASTM A 334/A 334M–96, Standard Specification for Seamless and Welded Carbon and Alloy-Steel Tubes for Low-Temperature Service (“ASTM A–334” or “ASTM A 334”), IBR approved for §§ 56.50–105 and 56.60–1.

(28) ASTM A 335/A 335M–95a, Standard Specification for Seamless Ferritic Alloy-Steel Pipe for High-Temperature Service (“ASTM A 335”), IBR approved for § 56.60–1.

(29) ASTM A 350/A 350M–97, Standard Specification for Carbon and Low-Alloy Steel Forgings, Requiring Notch Toughness Testing for Piping Components (“ASTM A–350”), IBR approved for § 56.50–105.

(30) ASTM A 351/A 351M–94a, Standard Specification for Castings, Austenitic, Austenitic-Ferritic (Duplex), for Pressure-Containing Parts (“ASTM A–351”), IBR approved for § 56.50–105.

(31) ASTM A 352/A 352M–93, Standard Specification for Steel Castings, Ferritic and Martensitic, for Pressure-Containing Parts, Suitable for Low-Temperature Service, 1998 (“ASTM A–352”), IBR approved for § 56.50–105.

(32) ASTM A 358/A 358M–95a, Standard Specification for Electric-Fusion-Welded Austenitic Chromium-Nickel Alloy Steel Pipe for High-Temperature Service (“ASTM A 358”), IBR approved for § 56.60–1.

(33) ASTM A 369/A 369M–92, Standard Specification for Carbon and Ferritic Alloy Steel Forged and Bored Pipe for High-Temperature Service (“ASTM A 369”), IBR approved for § 56.60–1.

(34) ASTM A 376/A 376M-96, Standard Specification for Seamless Austenitic Steel Pipe for High-Temperature Central-Station Service (“ASTM A 376”), IBR approved for §§ 56.60-1 and 56.60-2.

(35) ASTM A 395/A 395M-98, Standard Specification for Ferritic Ductile Iron Pressure-Retaining Castings for Use at Elevated Temperatures (“ASTM A 395”), IBR approved for §§ 56.50-60, 56.60-1, and 56.60-15.

(36) ASTM A 403/A 403M-98, Standard Specification for Wrought Austenitic Stainless Steel Piping Fittings (“ASTM A 403”), IBR approved for § 56.60-1.

(37) ASTM A 420/A 420M-96a, Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Low-Temperature Service (“ASTM A-420” or “ASTM A 420”), IBR approved for §§ 56.50-105 and 56.60-1.

(38) ASTM A 520-97, Standard Specification for Supplementary Requirements for Seamless and Electric-Resistance-Welded Carbon Steel Tubular Products for High-Temperature Service Conforming to ISO Recommendations for Boiler Construction (“ASTM A 520”), IBR approved for § 56.60-1.

(39) ASTM A 522/A 522M-95b, Standard Specification for Forged or Rolled 8 and 9% Nickel Alloy Steel Flanges, Fittings, Valves, and Parts for Low-Temperature Service (“ASTM A-522”), IBR approved for § 56.50-105.

(40) ASTM A 536-84, Standard Specification for Ductile Iron Castings, 1993 (“ASTM A 536”), IBR approved for § 56.60-1.

(41) ASTM A 575-96, Standard Specification for Steel Bars, Carbon, Merchant Quality, M-Grades (“ASTM A 575”), IBR approved for § 56.60-2.

(42) ASTM A 576–90b, Standard Specification for Steel Bars, Carbon, Hot-Wrought, Special Quality, 1995 (“ASTM A 576”), IBR approved for § 56.60–2.

(43) ASTM B 16–92, Standard Specification for Free-Cutting Brass Rod, Bar, and Shapes for Use in Screw Machines (“ASTM B 16”), IBR approved for § 56.60–2.

(44) ASTM B 21–96, Standard Specification for Naval Brass Rod, Bar, and Shapes (“ASTM B 21”), IBR approved for § 56.60–2.

(45) ASTM B 26/B 26M–97, Standard Specification for Aluminum-Alloy Sand Castings (“ASTM B 26”), IBR approved for § 56.60–2.

(46) ASTM B 42–96, Standard Specification for Seamless Copper Pipe, Standard Sizes (“ASTM B 42”), IBR approved for § 56.60–1.

(47) ASTM B 43–96, Standard Specification for Seamless Red Brass Pipe, Standard Sizes (“ASTM B 43”), IBR approved for § 56.60–1.

(48) ASTM B 68–95, Standard Specification for Seamless Copper Tube, Bright Annealed (“ASTM B 68”), IBR approved for § 56.60–1.

(49) ASTM B 75–97, Standard Specification for Seamless Copper Tube (“ASTM B 75”), IBR approved for § 56.60–1.

(50) ASTM B 85–96, Standard Specification for Aluminum-Alloy Die Castings (“ASTM B 85”), IBR approved for § 56.60–2.

(51) ASTM B 88–96, Standard Specification for Seamless Copper Water Tube (“ASTM B 88”), IBR approved for § 56.60–1.

(52) ASTM B 96–93, Standard Specification for Copper-Silicon Alloy Plate, Sheet, Strip, and Rolled Bar for General Purposes and Pressure Vessels (“ASTM B 96”), IBR approved for § 56.60–2.

(53) ASTM B 111–95, Standard Specification for Copper and Copper-Alloy Seamless Condenser Tubes and Ferrule Stock (“ASTM B 111”), IBR approved for § 56.60–1.

(54) ASTM B 124–96, Standard Specification for Copper and Copper Alloy Forging Rod, Bar, and Shapes (“ASTM B 124”), IBR approved for § 56.60–2.

(55) ASTM B 134–96, Standard Specification for Pipe, Steel, Electric-Fusion (Arc)-Welded (Sizes NPS 16 and Over) (“ASTM B 134”), IBR approved for § 56.60–1.

(56) ASTM B 161–93, Standard Specification for Nickel Seamless Pipe and Tube (“ASTM B 161”), IBR approved for § 56.60–1.

(57) ASTM B 165–93, Standard Specification of Nickel-Copper Alloy (UNS NO4400) Seamless Pipe and Tube (“ASTM B 165”), IBR approved for § 56.60–1.

(58) ASTM B 167–97a, Standard Specification for Nickel-Chromium-Iron Alloys (UNS NO6600, NO6601, NO6603, NO6690, NO6025, and NO6045) Seamless Pipe and Tube (“ASTM B 167”), IBR approved for § 56.60–1.

(59) ASTM B 171–95, Standard Specification for Copper-Alloy Plate and Sheet for Pressure Vessels, Condensers, and Heat Exchangers (“ASTM B 171”), IBR approved for § 56.60–2.

(60) ASTM B 210–95, Standard Specification for Aluminum and Aluminum-Alloy Drawn Seamless Tubes (“ASTM B 210”), IBR approved for § 56.60–1.

(61) ASTM B 234–95, Standard Specification for Aluminum and Aluminum-Alloy Drawn Seamless Tubes for Condensers and Heat Exchangers (“ASTM B 234”), IBR approved for § 56.60–1.

(62) ASTM B 241/B 241M-96, Standard Specification for Aluminum and Aluminum-Alloy Seamless Pipe and Seamless Extruded Tube (“ASTM B 241”), IBR approved for § 56.60-1.

(63) ASTM B 280-97, Standard Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service (“ASTM B 280”), IBR approved for § 56.60-1.

(64) ASTM B 283-96, Standard Specification for Copper and Copper-Alloy Die Forgings (Hot-Pressed) (“ASTM B 283”), IBR approved for § 56.60-2.

(65) ASTM B 315-93, Standard Specification for Seamless Copper Alloy Pipe and Tube (“ASTM B 315”), IBR approved for § 56.60-1.

(66) ASTM B 361-95, Standard Specification for Factory-Made Wrought Aluminum and Aluminum-Alloy Welding Fittings (“ASTM B 361”), IBR approved for § 56.60-1.

(67) ASTM B 858M-95, Standard Test Method for Determination of Susceptibility to Stress Corrosion Cracking in Copper Alloys Using an Ammonia Vapor Test (“ASTM B 858M”), IBR approved for § 56.60-2.

(68) ASTM D 635-97, Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position (“ASTM D 635”), IBR approved for § 56.60-25.

(69) ASTM D 1785-96b, Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120. (“ASTM D 1785”), IBR approved for § 56.60-25.

(70) ASTM D 2241-96b, Standard Specification for Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series) (“ASTM D 2241”), IBR approved for § 56.60-25.

(71) ASTM D 2464-96a, Standard Specification for Threaded Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings Schedule 80 (“ASTM D 2464”), IBR approved for § 56.60-25.

(72) ASTM D 2466-97, Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40 (“ASTM D 2466”), IBR approved for § 56.60-25.

(73) ASTM D 2467-96a, Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80 (ASTM D 2467”), IBR approved for § 56.60-25.

(74) ASTM D 2665-97b, Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings (“ASTM D 2665”), IBR approved for § 56.60-25.

(75) ASTM D 2863-95, Standard Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-like Combustion of Plastics (Oxygen Index) (“ASTM D 2863”), IBR approved for § 56.60-25.

(76) ASTM E 23–96, Standard Test Methods for Notched Bar Impact Testing of Metallic Materials (“ASTM E 23”), IBR approved for § 56.50–105.

(77) ASTM F 682–82a, Standard Specification for Wrought Carbon Steel Sleeve-Type Pipe Couplings, 1993 (“ASTM F 682”), IBR approved for § 56.60–1.

(78) ASTM F 1006–86, Standard Specification for Entrainment Separators for Use in Marine Piping Applications, 1992 (“ASTM F 1006”), IBR approved for § 56.60–1.

(79) ASTM F 1007–86, Standard Specification for Pipe-Line Expansion Joints of the Packed Slip Type for Marine Application, 1996 (“ASTM F 1007”), IBR approved for § 56.60–1.

(80) ASTM F 1020–86, Standard Specification for Line-Blind Valves for Marine Applications, 1996 (“ASTM F 1020”), IBR approved for § 56.60–1.

(81) ASTM F 1120–87, Standard Specification for Circular Metallic Bellows Type Expansion Joints for Piping Applications, 1993 (“ASTM F 1120”), IBR approved for § 56.60–1.

(82) ASTM F 1123–87, Standard Specification for Non-Metallic Expansion Joints, 1993 (“ASTM F 1123”), IBR approved for § 56.60–1.

(83) ASTM F 1139–88, Standard Specification for Steam Traps and Drains, 1993 (“ASTM F 1139”), IBR approved for § 56.60–1.

(84) ASTM F 1172–88, Standard Specification for Fuel Oil Meters of the Volumetric Positive Displacement Type, 1993 (“ASTM F 1172”), IBR approved for § 56.60–1.

(85) ASTM F 1173–95, Standard Specification for Thermosetting Resin Fiberglass Pipe and Fittings to be Used for Marine Applications (“ASTM F 1173”), IBR approved for § 56.60–1.

(86) ASTM F 1199–88, Standard Specification for Cast (All Temperature and Pressures) and Welded Pipe Line Strainers, 1993 (150 psig and 150 Degrees F Maximum) (“ASTM F 1199”), IBR approved for § 56.60–1.

(87) ASTM F 1200–88, Standard Specification for Fabricated (Welded) Pipe Line Strainers, 1993 (Above 150 psig and 150 Degrees F) (“ASTM F 1200”), IBR approved for § 56.60–1.

(88) ASTM F 1201–88, Standard Specification for Fluid Conditioner Fittings in Piping Applications above 0 Degrees F, 1993 (“ASTM F 1201”), IBR approved for § 56.60–1.

(89) ASTM F 1387–93, Standard Specification for Performance of Mechanically Attached Fittings (“ASTM F 1387”), IBR approved for § 56.30–25.

(90) ASTM F 1476–95a, Standard Specification for Performance of Gasketed Mechanical Couplings for Use in Piping Applications (“ASTM F 1476”), IBR approved for § 56.30–35.

(91) ASTM F 1548–94, Standard Specification for the Performance of Fittings for Use with Gasketed Mechanical Couplings, Used in Piping Applications (“ASTM F 1548”), IBR approved for § 56.30–35.

(f) Expansion Joint Manufacturers Association Inc. (EJMA), 25 North Broadway, Tarrytown, NY 10591, <http://www.ejma.org>.

(1) Standards of the Expansion Joint Manufacturers Association, 1980, IBR approved for § 56.60–1.

(2) [Reserved]

(g) Fluid Controls Institute Inc. (FCI), 31 South Street, Suite 303, Morristown, NJ 07960, 216-241-7333, <http://www.fluidcontrolsinstitute.org>.

(1) FCI 69–1, Pressure Rating Standard for Steam Traps, IBR approved for § 56.60–1.

(2) [Reserved]

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

(1) Resolution A.753(18), Guidelines for the Application of Plastic Pipes on Ships, as amended by IMO Resolution MSC.313(88) (“Resolution A. 753(18)”), IBR approved for § 56.60-25(a).

(2) [Reserved]

(i) International Organization for Standardization (ISO), Case Postal 56, CH-1211 Geneva 20 Switzerland, +41 22 749 01 11, <http://www.iso.org>.

(1) ISO 15540 Ships and Marine Technology-Fire Resistance of Hose Assemblies-Test Methods, First Edition, Aug. 1, 1999, IBR approved for § 56.60–25.

(2) [Reserved]

(j) Instrument Society of America (ISA), 67 Alexander Drive, Research Triangle Park, NC 27709, 919-549-8411, <http://www.isa.org>.

(1) ISA–S75.02, 1996, IBR approved for § 56.20–15.

(2) [Reserved]

(k) Manufacturers Standardization Society of the Valve and Fittings Industry, Inc. (MSS), 127 Park Street NE., Vienna, VA 22180, 703-281-6613, <http://mss-hq.org>.

(1) SP–6–2001, Standard Finishes for Contact Faces of Pipe Flanges and Connecting-End Flanges of Valves and Fittings, 2001, IBR approved for §§ 56.25–10 and 56.60–1.

(2) SP–9–2001, Spot Facing for Bronze, Iron and Steel Flanges, 2001, IBR approved for § 56.60–1.

- (3) SP-25-1998, Standard Marking System for Valves, Fittings, Flanges and Unions, 1998, IBR approved for §§ 56.15-1, 56.20-5, and 56.60-1.
- (4) SP-44-1996, Steel Pipe Line Flanges, Reaffirmed 2001, IBR approved for § 56.60-1.
- (5) SP-45-2003, Bypass and Drain Connections, 2003, 56.20-20; IBR approved for § 56.60-1.
- (6) SP-51-2003, Class 150LW Corrosion Resistant Cast Flanges and Flanged Fittings, 2003, IBR approved for § 56.60-1.
- (7) SP-53-95, Quality Standard for Steel Castings and Forgings for Valves, Flanges and Fittings and Other Piping Components—Magnetic Particle Examination Method, 1995, IBR approved for § 56.60-1.
- (8) SP-55-2001, Quality Standard for Steel Castings for Valves, Flanges and Fittings and Other Piping Components—Visual Method, 2001, IBR approved for § 56.60-1.
- (9) SP-58, Pipe Hangers and Supports—Materials, Design and Manufacture, 1993, IBR approved for § 56.60-1.
- (10) SP-61-2003, Pressure Testing of Steel Valves, 2003, IBR approved for § 56.60-1.
- (11) SP-67, Butterfly Valves, 1995, IBR approved for § 56.60-1.
- (12) SP-69, Pipe Hangers and Supports—Selection and Application, 1996, IBR approved for § 56.60-1.
- (13) SP-72, Ball Valves with Flanged or Butt-Welding Ends for General Service, 1987, IBR approved for § 56.60-1.

(14) SP-73 (R 96), Brazing Joints for Copper and Copper Pressure Fittings, 1991, IBR approved for § 56.60-1.

(15) SP-83, Class 3000 Steel Pipe Unions, Socket Welding and Threaded, 1995, IBR approved for § 56.60-1.

(l) Society of Automotive Engineers (SAE), 400 Commonwealth Drive, Warrendale, PA 15096, 724-776-4841, <http://www.sae.org>.

(1) J1475 (1996), Surface Vehicle Hydraulic Hose Fittings for Marine Applications, June 1996, IBR approved for § 56.60-25(b).

(2) J1942 (1997), Standards Hose and Hose Assemblies for Marine Applications, May 1997, IBR approved for § 56.60-25.

58. Amend § 56.60-25 as follows:

a. Revise paragraph (a) to read as follows;

b. In paragraphs (b)(1) and (b)(6), remove the words “(incorporated by reference; see 46 CFR 56.01-2)” and add, in their place, the words “(incorporated by reference, see § 56.01-2 of this part)”;

c. Revise paragraph (b)(5) to read as follows; and

d. In paragraphs (c) and (d), remove the word “shall” and add, in its place, the word “must”.

§ 56.60-25 Non-metallic materials.

(a) Plastic pipe installations must be in accordance with IMO Resolution A.753(18) (incorporated by reference, see § 56.01-2) and the following supplemental requirements.

(1) Plastic pipe and associated fittings must be approved to approval series

164.141 as follows:

(i) All piping, except pipe used on open decks, in cofferdams, void spaces, or ducts, must meet the flame spread requirements of Appendix 3 of IMO Resolution A.753(18).

(ii) Where fire endurance is required in Appendix 4 of IMO Resolution A.753(18) the pipe must, at a minimum, be approved as meeting the fire endurance level required in Appendix 4. Ratings of “0” in Appendix 4 indicate that no fire endurance test is required. Ratings of “N/A” or “X” indicate that plastic pipe is not permitted.

(iii) Piping in accommodation, service and control spaces must be approved for use in those spaces.

(2) Plastic pipe that has not been approved for use in accommodation, service and control spaces is permitted in a concealed space in an accommodation, service or control space, such as behind ceilings or linings or between double bulkheads if--

(i) The piping is enclosed in a trunk or duct constructed of “A” class divisions; or

(ii) An approved smoke detection system is fitted in the concealed space and each penetration of a bulkhead or deck and each installation of a draft stop is made in accordance with IMO Resolution A.753(18) to maintain the integrity of fire divisions.

(3) Requests for the use of plastic pipe for non-vital systems, as defined in 46 CFR 56.07-5, containing non-flammable or non-combustible liquids in locations that do not require fire endurance testing, as indicated in Appendix 4 of IMO Resolution A.753(18), must be submitted to the Marine Safety Center for review. The proposed piping must meet the following requirements:

(i) The length of pipe must be 30 inches or less;

(ii) The pipe must be contained within the space and does not penetrate any bulkhead, overhead or deck; and

(iii) Material specifications must be provided with the installation proposal.

(4) Plastic pipe fitting and bonding techniques must follow the manufacturer's installation guidelines. Bonders must hold certifications required by the manufacturer's guidelines and provide documentation of current certification to the Marine Inspector when requested.

(5) Systems identified by 46 CFR 56.97-40(a)(1) through 46 CFR 56.97-40(c) that contain plastic piping must be tested to 1.5 MAWP as required by 46 CFR 56.97-40(a).

(6) Plastic pipe used outboard of the required metallic shell valve in any piping system penetrating the vessel's shell (see § 56.50–95(f) of this part) must have the same fire endurance as the metallic shell valve. Where the shell valve and the plastic pipe are in the same unmanned space, the valve must be operable from above the freeboard deck.

(7) Pipe that is to be used for potable water must bear the NSF Mark of the National Sanitation Foundation International.

(8) Plastic pipe must also comply with appropriate requirements for specific uses and arrangements of pipe given elsewhere in this part.

(b) * * *

(5) Nonmetallic flexible hose must have factory-assembled end fittings requiring no further adjustment or field attachable fittings. Hose end fittings must comply with SAE J1475 (incorporated by reference, see § 56.01–2). Field attachable fittings must be installed following the manufacturer's recommended practice. If special equipment is

required, such as crimping machines, it must be of the type and design specified by the manufacturer. A hydrostatic test of each hose assembly must be conducted in accordance with § 56.97–5 of this part.

* * * * *

PART 70—GENERAL PROVISIONS

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

Authority: 46 U.S.C. 3306, 3703; Pub. L. 103–206, 107 Stat. 2439; 49 U.S.C. 5103, 5106; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1; Section 70.01–15 also issued under the authority of 44 U.S.C. 3507.

§ 70.01-1 [Amended]

60. Amend to add, at the end of § 70.01-1, the sentence “The regulations in this subchapter (parts 70, 71, 72, 76, 77, 78, and 80) have preemptive effect over State or local regulations in the same field.”.

PART 71—INSPECTION AND CERTIFICATION

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

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 2113, 3205, 3306, 3307; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; Department of Homeland Security Delegation No. 0170.1.

62. Add new § 71.25-3 to read as follows:

§ 71.25-3 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart with the approval of the Director of the **Federal Register** in accordance with 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue, SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition (“NFPA 10”), IBR approved for § 71.25-20(a).

(2) [Reserved]

63. Amend § 71.25-20 as follows:

a. Revise section heading, paragraphs (a) introductory text and (a)(1) to read as follows;

b. Remove Table 71.25-20(a)(1);

c. In paragraphs (a)(2) and (a)(4), remove the word “shall” wherever it appears and add, in its place, the word “must”;

d. In Table 71.25-20(a)(2), remove the word “shall” wherever it appears and add, in its place, the word “must”;

e. In paragraph (a)(3), remove the word “detecting” wherever it appears and add, in its place, the word “detection”; and remove the word “shall” wherever it appears and

add, in its place, the word “must”; and

f. In paragraph (a)(4), remove the words “fire hose” and add, in their place, the word “firehose”.

§ 71.25-20 Fire detection and extinguishing equipment.

(a) At each annual inspection, the inspector must ensure that the following tests and inspections of fire detection and extinguishing equipment have been conducted:

(1) All portable fire extinguishers and semi-portable fire extinguishing systems must be maintained in accordance with NFPA 10, chapter 7 (incorporated by reference, see § 71.25-3). Chapter 7 requires persons performing annual and periodic maintenance, and recharging to be certified. The Coast Guard requires that the servicing persons be properly licensed to perform fire extinguisher maintenance as required by local authorities having jurisdiction. Monthly inspections required by NFPA 10 may be conducted by members of the crew.

* * * * *

PART 72—CONSTRUCTION AND ARRANGEMENT

64. The authority citation for part 72 continues to read as follows:

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

65. Revise § 72.05-1 to read as follows:

§ 72.05-1 Application.

(a) The provisions of this subpart apply to the following vessels:

- (1) All vessels of 100 gross tons or more.
- (2) All vessels with overnight accommodations for more than 150 passengers.
- (3) All vessels on an international voyage.

(b) The provisions of this subpart, with the exception of § 72.05–90 of this subpart, apply to all vessels noted in paragraph (a) of this section contracted for on or after May 26, 1965. Such vessels contracted for prior to May 26, 1965, must meet the requirements of § 72.05–90 of this subpart.

(c) Vessels meeting the structural fire protection requirements of SOLAS, Chapter II-2, Regulations 5, 6, 8, 9, and 11, when combined with the stair requirements in § 72.05-20 may be considered equivalent to the provisions of this subpart. (d) Vessels regulated under subchapter K of this chapter which carry more than 600 passengers or with overnight accommodations for more than 49 passengers must also meet the requirements for stairways, ladders and elevators in § 72.05-20 of this subpart (see 46 CFR 116.438(a)).

PART 76—FIRE PROTECTION EQUIPMENT

66. The authority citation for part 76 continues to read as follows:

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

67. Revise § 76.01-2 to read as follows:

§ 76.01-2 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below.

It is also available for inspection 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

(b) ASTM International (formerly American Society for Testing and Materials), 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, 610-832-9500, <http://www.astm.org>.

(1) ASTM F 1121–87 (1993), Standard Specification for International Shore Connections for Marine Fire Applications, IBR approved for § 76.10–10(c).

(2) [Reserved]

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

(1) International Convention for the Safety of Life at Sea (SOLAS), Consolidated Text of the International Convention for the Safety of Life at Sea, 1974, and its Protocol of 1988: Article, Annexes and Certificates. (Incorporating all Amendments in Effect from 1 July 2009) (SOLAS), IBR approved for §§ 76.27-1(b) and 76.27-70(a).

(2) International Code for Fire Safety Systems (FSS Code), 2007 Edition IBR approved for §§ 76.27-1(b) and 76.27-70(a).

(3) IMO Resolution A.1021(26), Code on Alarms and Indicators, IBR approved for § 76.27-70(j).

(d) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition, (“NFPA 13”), IBR approved for §§ 76.25–1 and 76.25–90.

(2) [Reserved]

(e) Navy Publications and Forms Center, Customer Service Code 1052, 5801 Tabor Ave., Philadelphia, PA 19120.

(1) Federal Specification ZZ-H-451G, Hose, Fire, Woven-Jacketed Rubber or Fabric-Lined, with Couplings, IBR approved for § 76.10-10(n).

(2) [Reserved]

(f) Underwriters Laboratories Inc. (UL), 333 Pfingsten Road Northbrook, IL 60062-2096, 919-549-1400, www.ul.com.

(1) UL 19 Standard for Lined Fire Hose and Hose Assemblies (UL 19), IBR approved for § 76.10–10(n).

(2) [Reserved]

68. Revise § 76.01-5 to read as follows:

§ 76.01-5 Equipment installed but not required.

(a) Where extinguishing systems or equipment are not required, but are installed, the system or equipment and its installation must meet the requirements of this part.

(b) Use of non-approved fire detection systems may be acceptable as excess equipment provided that:

(1) Components are listed by a nationally recognized testing laboratory (NRTL) as that term is defined in 46 CFR 161.002-2, and are designed, installed, tested, and

maintained in accordance with an appropriate industry standard and the manufacturer's specific guidance;

(2) Installation conforms to the requirements of 46 CFR, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105;

(3) Coast Guard plan review is completed for wiring plans; and

(4) The system and units remain functional as intended. To ensure this, marine inspectors may test and inspect the system during routine inspections.

69. Revise § 76.05-1 to read as follows:

§ 76.05-1 Fire detection and alarm systems.

(a) Approved fire detection and alarm systems must be installed on the following vessels as set forth in § 76.27 of this part:

(1) Any vessel on an international voyage.

(2) Any vessel of more than 150 feet in length having sleeping accommodations for passengers.

(3) Any vessel of 150 feet or less in length, not on an international voyage, having sleeping accommodations for 50 or more passengers. Vessels in this category are not required to have a fire detection system in the cargo spaces.

(b) The arrangements and details of the fire detection systems must be as set forth in subparts 76.25 and 76.33 of this part.

70. Revise § 76.05-5 to read as follows:

§ 76.05-5 Manual alarm system.

(a) An approved manual alarm system must be installed in all vessels as set forth in § 76.27 of this part.

§ 76.05-10 [Amended]

71. In § 76.05-10(a), remove the word “shall” and add, in its place, the word “must”.

72. Revise § 76.05-20 to read as follows:

§ 76.05-20 Fixed fire extinguishing systems.

Approved fire extinguishing systems must be installed, as required by table 76.05-20 on all self-propelled vessels and on all barges with sleeping accommodations for more than six persons. Previously approved installations may be retained as long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

Table 76.05-20—Required Fixed Extinguishing Systems

Space	Fixed extinguishing systems
Safety areas	
Wheelhouse or fire-control room.	None required. ¹
Stairway and elevator enclosures.	None required. ¹
Communication corridors.	None required. ¹
Lifeboat embarkation and lowering stations.	None required.
Radio room.	None required. ¹
Accommodations	
Staterooms, toilet spaces, isolated pantries, etc.	None required. ¹
Offices, lockers, and isolated storerooms.	None required. ¹

Public spaces.	None required. ¹
Open decks or enclosed promenades.	None required.
Service spaces	
Galleys.	None required. ¹
Main pantries.	None required. ¹
Motion picture booths and film lockers.	None required. ^{1,2}
Paint and lamp rooms.	Carbon dioxide. ³
Inaccessible baggage, mail, and specie rooms and storerooms.	Carbon dioxide. ³
Accessible baggage, mail, and specie rooms and storerooms.	None required. ¹
Refrigerated storerooms.	None required.
Carpenter, valet, photographic, and printing shops, sales rooms, etc.	None required. ¹
Machinery spaces	
Coal fired boilers: Bunker and boiler space.	None required. ¹
Oil fired boilers: Spaces containing oil fired boilers either main or auxiliary, their fuel oil service pumps, and/or such other fuel oil units as the heaters, strainers, valves, manifolds, etc., that are subject to the discharge pressure of the fuel oil service pumps, together with adjacent spaces to which oil can drain.	Carbon dioxide or foam. ⁴
Internal combustion or gas turbine propelling machinery spaces.	Carbon dioxide. ⁵
Electric propulsive motors or generators of open type.	None required.
Enclosed ventilating systems for motors and generators of electric propelling machinery.	Carbon dioxide (in ventilating system). ⁷
Auxiliary spaces, internal combustion or gas turbine.	Carbon dioxide. ⁷
Auxiliary spaces, electric motors or generators.	None required.
Auxiliary spaces, steam.	None required.
Trunks to machinery spaces.	None required.

Fuel tanks.	None required. ⁸
Cargo spaces	
Inaccessible during voyage (combustible cargo), including trunks (excluding tanks).	Carbon dioxide. ³
Accessible during voyage (combustible cargo).	Automatic or manual sprinkler system.
Vehicular deck (except where no overhead deck is 30 feet in length or less).	Manual sprinkler.
Cargo oil tanks.	Carbon dioxide or foam. ³
Specially suitable for vehicles.	Carbon dioxide, automatic or manual sprinkler system.

¹Vessels of 100 GT or more contracted for on or before May 27, 1936, and having combustible joiner work must be fitted with an automatic sprinkler system, except in relatively incombustible spaces.

²Sprinkler heads may be attached to a potable water system provided electrical or pneumatic detecting is installed.

³On vessels contracted for prior to January 1, 1962, a steam smothering system may be accepted. However, although existing steam smothering systems may be repaired, replaced, or extended, no new system contracted for on or after January 1, 1962, will be permitted.

⁴Protection of auxiliary boilers, fuel oil units, valves, and manifolds not required on vessels contracted for prior to November 19, 1952.

⁵Not required on vessels of less than 300 GT (except on an international voyage) using fuel with a flashpoint higher than 110 °F, where the space is normally manned.

⁶Not required on vessels contracted for prior to November 19, 1952.

⁷Not required on vessels of less than 300 GT or on vessels contracted for prior to November 19, 1952, except where fuel, including starting fuel, has a flashpoint of 110 °F or less.

⁸Where fuel having a flashpoint of 110 °F or lower is used the space containing the fuel tanks must be protected by a carbon dioxide system.

§ 76.10-5 [Amended]

73. Amend § 76.10-5 as follows:

a. In paragraph (a), remove the word “shall” and add, in its place, the word “must”; and

b. In table 76.10-5(a), footnote 1, remove the words “75 feet of 1 1/2-inch hose and 5/8-inch nozzles may be used where specified” and add, in their place, the words “Except as allowed”.

74. Revise § 76.10-10 to read as follows:

§ 76.10-10 Fire station hydrants, hose and nozzles-T/ALL.

(a) The size of fire hydrants, hoses, and nozzles, and the length of hose required, must be as noted in table 76.10–5(a) of this subpart.

(b) On vessels of more than 1,500 gross tons, the 2 1/2 –inch hose and hydrants specified in Table 76.10-5(a) may be replaced with 1 1/2 hose and hydrants as follows:

(1) The hydrants in interior locations may have wye connections for 1 1/2-inch hose. In these cases, the hose must be 75 feet in length, and only one hose will be required at each fire station; however, if every interior space can be reached by a 50-foot hose then 50-foot hoses may be installed at each interior fire hydrant; and

(2) The hydrants for external locations may consist of two 1 1/2-inch outlets, each with a 1 1/2-inch hose supplied through a wye connection as a substitute.

(c) On vessels of 500 gross tons or more, there must be at least one shore connection to the fire main available to each side of the vessel in an accessible location. Suitable cut-out valves and check valves must be provided. Suitable adaptors also must be provided for furnishing the vessel's shore connections with couplings mating those on the shore fire lines. Vessels of 500 gross tons or more on an international voyage must be provided with at least one international shore connection complying with ASTM F 1121 (incorporated by reference, see § 76.01–2). Facilities must be available, enabling an international shore connection to be used on either side of the vessel.

(d) Fire hydrants must be of sufficient number and so located that any part of the vessel, other than main machinery spaces, so that they are accessible to the passengers or crew while the vessel is being navigated.. For the purpose of this requirement, all watertight doors and all doors in main vertical zone bulkheads and stairway enclosures

must be closed, although hose ports may be installed in doors, other than watertight doors and doors in main vertical zone bulkheads, for the passage of the hose. All areas of the main machinery spaces and cargo holds must be capable of being reached by at least two streams of water, each of which must be from a single length of hose from separate outlets. This requirement need not apply to shaft alleys containing no assigned space for the stowage of combustibles. Fire hydrants must be numbered as required by § 78.47–20 of this subchapter.

(e) All parts of the fire main located on exposed decks must either be protected against freezing or be fitted with cut-out valves and drain valves so that the entire exposed parts of such piping may be shut off and drained in freezing weather. Except when closed to prevent freezing, such valves must be sealed open.

(f) The outlet at each fire hydrant must be provided with a cock or valve fitted in such a position that the firehose may be removed while the fire main is under pressure. In addition, the outlet must be limited to any position from the horizontal to the vertical pointing downward, so that the hose will lead horizontally or downward to minimize the possibility of kinking.

(g) Each fire hydrant must have at least one length of firehose, a spanner wrench, and a hose rack or other device for stowing the hose.

(h) Firehoses must be connected to the outlets at all times. However, on open decks where no protection is afforded to the hose in heavy weather, or where the hose may be liable to damage from the handling of cargo, the hose may be temporarily removed from the hydrant and stowed in an accessible nearby location.

(i) A firehose must not be used for any purpose other than fire extinguishing and fire drills.

(j) Each firehose on each hydrant must have a combination solid stream and water spray firehose nozzle that meets the requirements in 46 CFR, subpart 162.027. Firehose nozzles previously approved under subpart 162.027 of this chapter may be retained so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

(k) Straight stream firehose nozzles approved under 46 CFR 162.027 must have low-velocity water spray applicators for--

(1) Two firehoses within the accommodation and service areas; and

(2) Each firehose within propulsion machinery space containing an oil-fired boiler, internal combustion machinery, or an oil fuel unit on a vessel on an international voyage or on any vessel of 1,000 gross tons or more. The length of each applicator must be not more than 1.8 meters (6 feet).

(l) Fixed brackets, hooks, or other means for stowing an applicator must be next to each fire hydrant that has an applicator under paragraph (k) of this section.

(m) Fire hydrants, nozzles, and other fittings must have threads to accommodate the hose connections noted in paragraph (l) of this section.

(n) Firehose and couplings must be as follows:

(1) Fire station hydrant connections must be brass, bronze, or other equivalent metal. Couplings must either—

(i) Use National Standard (NS) firehose coupling threads for the 1 1/2-in (38-mm) and 2 1/2-in (64-mm) hose sizes, i.e., 9 threads per inch for a 1 1/2-in hose, and 7 1/2 threads per inch for a 2 1/2-in hose; or

(ii) Be a uniform design for each hose diameter throughout the vessel.

(2) Each section of firehose must be a lined commercial firehose that conforms to UL 19 (incorporated by reference, see 76.01–2). A hose that bears the label of Underwriters Laboratories, Inc. as a lined firehose is accepted as conforming to this requirement.

75. Amend § 76.25-1 to read as follows:

§ 76.25-1 Application

Automatic sprinkler systems must comply with Chapter 25 of NFPA 13 (incorporation by reference, see § 76.01-2).

§§ 76.25-5 through 76.25-35 [Removed]

76. Remove §§ 76.25-5 through 76.25-35.

77. Revise subpart 76.27, consisting of §§ 76.27-1 through 76.27-90, to read as follows:

Subpart 76.27—Fire Detection and Alarm System, Details

Sec.

76.27-1 Application.

76.27-5 General.

76.27-10 Operation.

76.27-15 Detectors.

76.27-20 Alarm indicators.

76.27-25 Power and circuitry.

76.27-30 Zoning.

76.27-35 Installation.

76.27-70 Application of SOLAS and FSS Code.

76.27-80 Installations contracted for on or after November 19, 1952 and prior to [2 YEARS AND 180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

76.27-90 Installations contracted for prior to November 19, 1952.

Subpart 76.27—Fire Detection and Alarm System, Details

§ 76.27-1 Application.

(a) Where a fire detection and alarm system is installed, the provisions of this subpart, with the exception of §§ 76.27-80 and 76.27–90 of this subpart, apply to all installations contracted for on or after [2 YEARS AND 180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE]. Installations contracted for on or after November 19, 1952 and prior to [2 YEARS AND 180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] must meet the requirements of § 76.27-80 of this subpart.

Installations contracted for prior to November 19, 1952, must meet the requirements of § 76.27–90 of this subpart.

(b) The design, manufacture, installation, and operation of fire detection and alarm systems must be in accordance with either--

(1) Sections 76.27-5 through 76.27-35 of this subpart; or

(2) SOLAS Chapter II-2, Regulation 7 (incorporated by reference, see § 76.01-2) and FSS Code Chapter 9 (incorporated by reference, see § 76.01-2) as detailed in § 76.27-70 of this part.

§ 76.27-5 General.

(a) Detectors, manual alarm stations, control panels, cabinets, alarms, and other notifying devices must be of approved types.

(b) The fire detection and alarm system must be capable of immediate operation at all times that the vessel is in service.

(c) The fire detection and alarm system must control and monitor input signals for all connected detectors and manual pull stations or call points.

(d) The fire detection and alarm system must provide fire or fault output signals to the pilothouse or fire control station.

(e) The fire detection and alarm system must notify crew and passengers of a fire when appropriate.

(f) The fire detection and alarm system must be so arranged and installed that the presence of a fire in any of the protected spaces will be automatically registered visibly and audibly in the pilothouse or fire control station. The visible notice must indicate the zone in which the alarm originated. On vessels of more than 150 feet in length, there must also be an audible alarm in the engine room.

§ 76.27-10 Operation.

(a) Means to manually acknowledge all alarm and fault signals must be provided at the control panel. The audible alarm on the control panel may be manually silenced. The control panel must clearly distinguish between normal, alarm, acknowledged alarm, fault, and silence conditions.

(b) The activation of any detector or manual pull station must cause an audible and visual fire detection alarm signal at the control panel. If the alarm signal has not

been acknowledged within 2 minutes, an audible fire alarm must be automatically sounded throughout the crew accommodations and service spaces, control stations, and manned machinery spaces.

(c) A fire detection and alarm system must automatically reset to a normal operating condition after alarm and fault situations are cleared.

(d) Detectors in certain spaces, such as workshops during hot work and ro-ro spaces during on- and off-loading, may be disabled. The system must be restored automatically to normal surveillance after a predetermined time. Spaces must be manned when any detectors are disabled. Detectors in all other spaces must remain operational.

(e) In fire detection and alarm systems with addressable detectors and manual pull stations, every fault (such as an open circuit, short circuit, or ground fault) must be monitored and must not prevent the continued individual identification of the remaining detectors and manual pull stations.

(f) In fire detection and alarm systems with addressable detectors and manual alarm stations, the initiation of the first fire detector and resulting alarm must not prevent any other detector from responding.

(g) Fire detection and alarm systems without addressable detectors and manual alarm stations must identify the zone that contains the activated detector or station upon activation of a detector or manual pull station.

(h) Fire detection and alarm systems may output signals to other fire safety systems including, but not limited to, paging systems, fire alarm or public address systems, fan stops, fire doors, fire dampers, sprinkler systems, smoke extraction systems,

low-location lighting systems, fixed local application fire extinguishing systems, and closed circuit television systems.

(i) Fire detection and alarm systems may accept signals from other safety systems. For example, a signal initiated from actuation of an automatic sprinkler valve may be sent to a fire detection and alarm system.

(j) The fire detection and alarm system may be connected to a decision management system provided that--

(1) The decision management system is compatible with the fire detection and alarm system;

(2) The decision management system can be disconnected without affecting the performance of the fire detection and alarm system; and

(3) Any malfunction of the interfaced and connected decision management equipment must not render the fire detection and alarm system ineffective.

§ 76.27-15 Detectors.

(a) Detectors must be responsive to heat, smoke, or other products of combustion, flame, or any combination of these factors. Detectors responsive to other indicators of incipient fires may be used if approved.

(b) Detectors must be capable of being triggered or tested and restored to service without the replacement of any component.

(c) Heat detectors must be rated not lower than 130 °F (54 °C) and not higher than 172 °F (78 °C). The operating temperature of heat detectors located in spaces of high normal ambient temperatures may be up to 260 °F (130 °C). The operating temperatures of heat detectors in saunas may be up to 284 °F (140 °C).

(d) Fire detectors fitted in passenger cabins must also emit, or cause to be emitted, an audible alarm within the cabin when activated.

(e) The required sensitivity and other performance criteria of detectors must be as set forth in 46 CFR 161.002.

§ 76.27-20 Alarm indicators.

(a) Audible alarms must generate sound pressure levels as set forth in 46 CFR 161.002 and must--

(1) Be at least 75 dBA as measured at the sleeping position in cabins;

(2) Be at least 10 dBA above ambient noise levels existing during normal operation with the ship under way in moderate weather when measured at a point 5 feet (1.5 meters) above the finished floor and at least 3 feet (1 meter) from the source;

(3) Not exceed 120 dBA; and

(4) The sound pressure level must be measured in the third octave band about the fundamental frequency.

(b) Visual alarms must generate light of an intensity and period as set forth in 46 CFR 161.002.

(c) All audible and visual alarms must be audible and visible throughout the spaces they are intended to alert.

§ 76.27-25 Power and circuitry.

(a) The power supply and emergency power supply for all fire detection and alarm systems must be in accordance with 46 CFR, subchapter J (Electrical Engineering).

At the end of the required period for which the fire detection and alarm system must

remain operable under emergency power, the system must remain capable of operating all audible and visual fire alarm signals for an additional period of 30 minutes.

(b) All wiring and electrical circuits and equipment must be in accordance with 46 CFR, subchapter J (Electrical Engineering).

(c) All fire detection and alarm systems must monitor power supplies and circuits necessary for the operation of the system during loss of power and fault conditions.

§ 76.27-30 Zoning.

(a) The fire detection system must be divided into separate zones to restrict the area covered by any particular alarm signal.

(b) The fire detection zone must not include spaces in more than one main vertical zone, except on cabin balconies.

(c) The fire detection zone must not include spaces on more than one deck, except--

(1) Adjacent and communicating spaces on different decks at the ends of the vessel having a combined ceiling area of not more than 3,000 sq ft;

(2) Isolated rooms or lockers in such spaces as mast houses, wheelhouse top, etc., which are easily communicable with the area of the fire detecting circuit to which they are connected; and

(3) Systems with addressable detectors and manual alarm stations that can have their status individually determined.

(d) Any fire detection zone with non-addressable detectors and manual pull stations must not contain more than 25 protected rooms or spaces.

§ 76.27-35 Installation.

(a) Detectors must be located in all spaces except those having little or no fire risk such as void spaces with no stowage of combustibles, private bathrooms, public toilets, fire extinguishing medium storage rooms, deck spaces, and enclosed promenades that are naturally ventilated by permanent openings.

(b) The detectors must be located on the overhead in the space protected at a minimum distance of 18 in (0.5 m) away from bulkheads, except in corridors, lockers, and stairways. Positions near beams and ventilation ducts, or other positions where patterns of air flow could adversely affect performance should be avoided. Where liable to physical damage, the detector must be suitably protected.

(c) Detectors must be located in accordance with spacing requirements as tested and approved.

(d) Detectors in stairways must be located at least at the top level of the stairs and at every second level beneath.

(e) There must be at least one manual alarm station in each zone.

(f) Manual alarm stations must be located in main passageways, stairway enclosures, public spaces, or similar locations where they will be readily available and easily seen in case of need.

(g) A sufficient number of manual alarm stations must be employed to enable a person escaping from any space to find a manual alarm station on his or her normal escape route.

(h) Cables that form part of a fire detection and alarm system must be arranged to avoid galleys and machinery and other high fire risk spaces except where it is necessary

to provide for fire detection and alarms in such spaces or to connect to an appropriate power supply.

(i) Clear information about the installation and operation of a fire detection and alarm system must be displayed on or adjacent to its control panels.

(j) The audible alarms must be identified as required by § 78.47–13 of this subchapter.

(k) The entire main vertical zone containing an atrium must be protected throughout with smoke detectors.

§ 76.27-70 Application of SOLAS and FSS Code.

When the design, manufacture, installation, and operation of a fire detection and alarm system is to be in accordance with SOLAS Chapter II-2, Part C, Regulation 7 and FSS Code Chapter 9 (incorporated by reference, see § 76.01-2) as allowed by § 76.27-1(b)(2) of this subpart, the following requirements apply:

(a) The periodic testing of fire detection and alarm systems required in SOLAS Chapter II-2, Regulation 7.3.2 must be conducted as part of the annual inspection mandated in subpart 71.25 of this subchapter.

(b) Control stations must be included among the spaces to be protected by a fire detection and alarm system under SOLAS Chapter II-2, Regulation 7.5.3.

(c) The Commanding Officer of the U.S. Coast Guard Marine Safety Center will determine whether a cargo space in a passenger vessel is inaccessible and whether or not it is reasonable to provide fire detection for the space under SOLAS Chapter II-2, Regulation 7.6.

(d) The Commanding Officer of the U.S. Coast Guard Marine Safety Center will determine whether or not there is risk of fire originating in concealed and inaccessible places that otherwise would require access of a fire patrol under SOLAS Chapter II-2, Regulation 7.8.2.

(e) Any detectors operated by factors other than heat, smoke, or other products of combustion, or flame as addressed in FSS Code Chapter 9.2.3.1.1, may be used if they are approved types.

(f) Notwithstanding the provisions of FSS Code Chapter 9.2.3.1.2, the required sensitivity and other performance criteria of smoke detectors must be as set forth in 46 CFR 161.002.

(g) Notwithstanding the provisions of FSS Code Chapter 9.2.3.1.3, the required sensitivity and other performance criteria of heat detectors must be as set forth in 46 CFR 161.002.

(h) As addressed in FSS Code Chapter 9.2.4.1.3, when a fire detection and alarm system does not include means for identifying each detector individually, no section of detectors and manually operated call points may include more than 25 enclosed spaces.

(i) Notwithstanding the spacing set forth in FSS Code Chapter 9, Table 9.1, fire detectors must be placed in accordance with spacing requirements as tested and approved.

(j) Footnotes to SOLAS Chapter II-2, Regulation 7.9 and FSS Code Chapter 9.2.51 refer to the Code on Alarms and Indicators, 2009, as adopted by IMO Resolution A.1021(26) (incorporated by reference, see § 76.01-2). The provisions of the Code on

Alarms and Indicators are recommended but not required under the option in § 76.27-1(b)(2) of this subpart.

§ 76.27-80 Installations contracted for on or after November 19, 1952 and prior to [2 YEARS AND 180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

Installations contracted for on or after November 19, 1952 and prior to [2 YEARS AND 180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE], must meet the following requirements:

(a) **Location and spacing of detectors.** (1) The detectors must be located close to the overhead in the space protected. Where liable to physical damage, the detector must be suitably protected.

(2) Unless specifically approved otherwise, every spot on the overhead of a protected space must be within 10 feet of a detector. Where beams or girders extend below the ceiling, or where the ceiling is installed at more than one level, the detectors must be so located as to be most effective.

(b) **Operation and installation.** (1) The system must be so arranged and installed that the presence of a fire in any of the protected spaces will be automatically registered visibly and audibly in the pilothouse or fire control station. The visible notice must indicate the zone in which the alarm originated. On vessels of more than 150 ft in length, there must also be an audible alarm in the engine room.

(2) The detectors, the fire detection cabinet, and alarms must be of an approved type.

(3) In general, the detectors, must be rated not lower than 135 °F and not higher than 165 °F. However, in spaces where a high ambient temperature may be expected, detectors must be rated not lower than 175 °F and not higher than 225 °F.

(4) The fire detection system must be used for no other purpose, except that it may be incorporated with the manual alarm system.

(5) All wiring and electrical circuits and equipment must meet the applicable requirements of 46 CFR, subchapter J (Electrical Engineering) of this chapter.

(6) A framed chart or diagram must be installed in the wheelhouse or control station adjacent to the detecting cabinet indicating the location of the various detecting zones and giving instructions for the operation, maintenance, and testing of the system. This chart, or a separate card or booklet to be kept near the chart, must have tabulated spaces for the date and signature of the licensed officer of the vessel who must witness or conduct the periodic tests.

(7) The audible alarms must be identified as required by § 78.47–13 of this subchapter.

(c) **Zoning.** (1) The fire detection system must be divided into separate zones to restrict the area covered by any particular alarm signal.

(2) All spaces in a fire detection zone must be accessible from one to another without leaving the deck involved. All doors in watertight subdivision bulkheads and main vertical zone bulkheads must be assumed closed for the purpose of this requirement.

(3) The fire detection zone must not include spaces on more than one deck, except--

- (i) Adjacent and communicating spaces on different decks at the ends of the vessel having a combined ceiling area of not more than 3,000 sq ft;
 - (ii) Isolated rooms or lockers in such spaces as mast houses, wheelhouse top, etc., which are easily communicable with the area of the fire detection circuit to which they are connected; and
 - (iii) Systems with indicators for individual spaces.
- (4) The fire detection zone must not contain more than 50 protected rooms or spaces.
- (d) **Repair of existing systems.** (1) If the status of the approval for the system is other than “Former – Do not use”, the system may be repaired by the following means--
- (i) Repair in kind using the same components as installed and listed on the approved drawings;
 - (ii) Repair using equivalent components from the authorized component list for the type approval for that system;
 - (iii) Repair using equivalent components from the authorized component list for the type approval for another fire detection system, provided that the replacement devices are compatible with the installed system; and
 - (iv) Repair using devices that are currently type approved, provided that the replacement devices are compatible with the installed system.
- (2) Any changes to the system that will result in the fire detection system not complying with the approved drawings require the drawings to be revised and submitted to the Marine Safety Center for review.

Table 76.27-80—Installations

Space	Detecting systems
<i>Safety areas</i>	
Wheelhouse or fire-control room.	None required. ¹
Stairway and elevator enclosures.	None required. ¹
Communication corridors.	None required. ¹
Lifeboat embarkation and lowering stations.	None required.
Radio room.	None required. ¹
<i>Accommodations</i>	
Staterooms, toilet spaces, isolated pantries, etc.	None required. ¹
Offices, lockers, and isolated storerooms.	Electric, pneumatic, or automatic sprinkling. ¹
Public spaces.	None required with 20-minute patrol. Electric, pneumatic, or automatic sprinkling with 1 hour patrol. ¹
Open decks or enclosed promenades.	None required.
<i>Service spaces</i>	
Galleys.	None required. ¹
Main pantries.	None required. ¹
Motion picture booths and film lockers.	Electric, pneumatic, or automatic sprinkling. ^{1,2}
Paint and lamp rooms.	Smoke detecting. ³
Inaccessible baggage, mail, and specie rooms and storerooms.	Smoke detecting. ³
Accessible baggage, mail, and specie rooms and storerooms.	Electric, pneumatic, or automatic sprinkling.
Refrigerated storerooms.	None required
Carpenter, valet, photographic, and printing shops, sales rooms, etc.	Electric, pneumatic, or automatic sprinkling.

<i>Machinery spaces</i>	
Coal fired boilers: Bunker and boiler space.	None required.
Oil fired boilers: Spaces containing oil fired boilers either main or auxiliary, their fuel oil service pumps, and/or such other fuel oil units as the heaters, strainers, valves, manifolds, etc., that are subject to the discharge pressure of the fuel oil service pumps, together with adjacent spaces to which oil can drain.	None required.
Internal combustion or gas turbine propelling machinery spaces.	None required.
Electric propulsive motors or generators of open type.	None required.
Enclosed ventilating systems for motors and generators of electric propelling machinery.	None required.
Auxiliary spaces, internal combustion or gas turbine.	None required.
Auxiliary spaces, electric motors or generators.	None required.
Auxiliary spaces, steam.	None required.
Trunks to machinery spaces.	None required.
Fuel tanks.	None required.
<i>Cargo spaces</i>	
Inaccessible during voyage (combustible cargo), including trunks (excluding tanks).	Smoke detecting.
Accessible during voyage (combustible cargo).	Smoke detecting, electric, pneumatic or automatic sprinkling.
Vehicular deck (except where no overhead deck is 30 feet in length or less).	None required.
Cargo oil tanks.	None required.
Specially suitable for vehicles.	Smoke detecting, electric, pneumatic or automatic sprinkling.

¹Vessels of 100 GT or more contracted for on or before May 27, 1936, and having combustible joiner work must be fitted with an automatic sprinkler system, except in relatively incombustible spaces.

²Sprinkler heads may be attached to a sanitary system provided electrical or pneumatic detecting is installed.

³On vessels contracted for prior to January 1, 1962, a steam smothering system may be accepted. However, although existing steam smothering systems may be repaired, replaced, or extended, no new system contracted for on or after January 1, 1962, will be permitted.

§ 76.27-90 Installations contracted for prior to November 19, 1952.

(a) Installations contracted for prior to November 19, 1952, must meet the following requirements:

(1) Existing arrangements, materials, and equipment previously approved will be considered satisfactory so long as they meet the minimum requirements of this paragraph, and they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs and alterations may be made to the same standards as the original installation.

(2) The details of the systems must be in general agreement with §§ 76.27–5 through 76.27–15 of this subpart insofar as is reasonable and practicable.

(b) [Reserved]

Subpart 76.30 – Pneumatic Fire Detection System, Details

78. Revise Subpart 76.30 heading to read as set forth above.

Subpart 76.30 – Pneumatic Fire Detection System, Details

79. Revise § 76.30-1 to read as follows:

§ 76.30-1 Application.

(a) Where a pneumatic fire detection system is installed, the provisions of this subpart, with the exception of § 76.30–90, must apply to all installations contracted for on or after November 19, 1952, and prior to [2 YEARS AND 180 DAYS AFTER THE

DATE OF PUBLICATION OF FINAL RULE]. Installations contracted for prior to November 19, 1952, must meet the requirements of § 76.30–90 of this subpart.

(b) [Reserved]

§ 76.30-5 [Amended]

80. In § 76.30-5, remove the word “detecting” wherever it appears and add, in its place, the word “detection”; and remove the word “shall” wherever it appears and add, in its place, the word “must”.

§ 76.30-10 [Amended]

81. In § 76.30-10, remove the word “shall” wherever it appears and add, in its place, the word “must”.

§ 76.30-15 [Amended]

82. Amend § 76.30-15 as follows:

a. Remove the word “shall” wherever it appears and add, in its place, the word “must”;

b. In paragraph (a), after the words “On vessels”, remove the word “over” and add, in its place, the words “greater than”;

c. In paragraph (c), after the words “at a temperature rise of approximately”, remove the text “40 degrees F” and add, in its place, the text “40 °F”; and

d. In paragraph (d), remove the word “detecting” and add, in its place, the word “detection”.

§ 76.30-90 [Amended]

83. Amend § 76.30-90 as follows:

- a. In paragraph (a) introductory text, remove the word “shall” and add, in its place, the word “must”;
- b. In paragraph (a)(1), remove the word “shall” and add, in its place, the word “will”; and
- c. In paragraph (a)(2), remove the word “shall” and add, in its place, the word “must”; and after the words “in general agreement with”, remove the text “§§ 76.30-5 through 76.30-15” and add, in its place, the text “§§ 76.27-5 through 76.27-35 of this subchapter”.

Subpart 76.33 – Smoke Detection System, Details

84. Revise subpart 76.33 heading to read as set forth above.

85. Revise § 76.33-1 to read as follows:

§ 76.33-1 Application.

(a) Where a smoke detection system is installed, the provisions of this subpart, with the exception of § 76.33–90 of this subpart, applies to all installations contracted for on or after November 19, 1952, and prior to [2 YEARS AND 180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE]. Installations contracted for prior to November 19, 1952, must meet the requirements of § 76.33–90 of this subpart.

(b) Vessels must comply with the requirements of § 76.33-20(c) of this subpart not later than [5 YEARS AFTER DATE OF PUBLICATION OF FINAL RULE].

§ 76.33-5 [Amended]

86. In § 76.33-5, remove the word “detecting” wherever it appears and add, in its place, the word “detection”; and remove the word “shall” wherever it appears and add, in its place, the word “must”.

§ 76.33-10 [Amended]

87. In § 76.33-10, remove the word “shall” wherever it appears and add, in its place, the word “must”.

§ 76.33-15 [Amended]

88. Amend § 76.33-15 as follows:

a. Remove the word “detecting” wherever it appears and add, in its place, the word “detection”;

b. Remove the word “shall” wherever it appears and add, in its place, the word “must”; and

c. In paragraph (e), remove the word “tapes” and add, in its place, the word “traps”; and remove the word “moisutre” and add, in its place, the word “moisture”.

89. Amend § 76.33-20 as follows:

a. Remove the word “shall” wherever it appears and add, in its place, the word “must”;

b. In paragraph (a), after the words “On vessels”, remove the word “over” and add, in its place, the words “greater than”;

c. Revise paragraph (c) to read as follows; and

d. In paragraphs (d) and (h), remove the word “detecting” and add, in its place, the word “detection”.

§ 76.33-20 Operation and installation.

* * * * *

(c) No exhaust from the detecting cabinet may be discharged in the vicinity of the cabinet to permit the detection of fire by odor. Instead, the exhaust must be directed to

the outside. Vessels must comply with this requirement not later than (5 YEARS AFTER DATE OF PUBLICATION OF FINAL RULE).

* * * * *

§ 76.33-90 [Amended]

90. Amend § 76.33-90 as follows:

a. In paragraph (a) introductory text, remove the word “shall” and add, in its place, the word “must”;

b. In paragraph (a)(1), remove the word “shall” and add, in its place, the word “will”; and

c. In paragraph (a)(2), remove the word “shall” and add, in its place, the word “must”; and after the words “general agreement with”, remove the text “§§ 76.33-5 through 76.33-15” and add, in its place, the text “§§ 76.27-5 through 76.27-35”.

§ 76.35-1 [Amended]

91. Amend § 76.35-1 as follows:

a. Remove the word “shall” wherever it appears and add, in its place, the word “must”; and

b. In paragraph (a), after the text “on or after November 19, 1952”, add the text”, and prior to [2 YEARS AND 180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE]”.

92. Amend § 76.35-5 to revise paragraph (a) to read as follows:

§ 76.35-5 Zoning.

(a) The zoning of the manual alarm system must meet the same requirements as for the fire detection system set forth in § 76.27–15(d) of this part.

* * * * *

§ 76.35-10 [Amended]

93. Amend § 76.35-10 as follows:

a. Remove the word “shall” wherever it appears and add, in its place, the word “must”; and

b. In section heading and paragraphs (a) and (c), remove the word “boxes” wherever it appears and add, in its place, the word “stations”; and remove the word “box” wherever it appears and add, in its place, the word “station”.

§ 76.35-15 [Amended]

94. Amend § 76.35-15 as follows:

a. Remove the word “shall” wherever it appears and add, in its place, the word “must”; and

b. In paragraph (c), remove the word “detecting” and add, in its place, the word “detection”.

95. Revise § 76.50-1 to read as follows:

§ 76.50-1 Application.

(a) The provisions of this subpart, with the exception of §§ 76.50-80 and 76.50–90, as applicable, apply to all vessels contracted for on or after November 19, 1952.

(b) Vessels contracted for prior to [180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] and on or after November 19, 1952, must meet the requirements of § 76.50–80 of this subpart.

(c) Vessels contracted for prior to November 19, 1952, must meet the requirements of § 76.50–90 of this subpart.

§ 76.50-5 [Reserved]

96. Remove and reserve § 76.50-5.

97. Revise § 76.50-10 to read as follows:

§ 76.50-10 Location.

(a) Approved portable and semi-portable extinguishers must be installed in accordance with table 76.50–10(a) of this section.

(b) Table 76.50-10(a) indicates the minimum required number and type of extinguisher for each space listed. Extinguishers with larger numerical ratings or multiple letter designations may be used if the extinguishers meet the requirements of the table.

Table 76.50–10(a)—Carriage of Portable and Semi-Portable Fire Extinguishers

Space	Fire extinguishing	
	Minimum required rating	Quantity and location
<i>Safety area</i> ¹		
Wheelhouse or fire control room.	20-B:C	1 of each classification on vessels over 1,000 GT. (Not required in both spaces.) (Multiple classifications may be recognized.)
Stairway and elevator enclosures.		None required.
Communicating corridors.	2-A	1 in each main corridor in each main vertical zone. (May be located in stairway enclosures.)
Lifeboat embarkation and lowering stations.		None required.
Radio room.	20-B:C ³	2 in the vicinity of the exit. ²
<i>Accommodations</i> ¹		
Staterooms, toilet spaces, isolated pantries, etc.		None required.

Offices, lockers, and isolated storerooms.		None required.
Public spaces.	2-A	1 for each 2,500 sq ft or fraction thereof located in vicinity of the exits, except that none are required for spaces under 500 sq ft.
Open decks or enclosed promenades.		None required.
<i>Service spaces</i>		
Galleys.	40-B:C	1 for each 2,500 sq ft or fraction thereof suitable for hazards involved.
Main pantries.	2-A	1 for each 2,500 sq ft or fraction thereof located in the vicinity of the exits.
Motion picture booths and film lockers.	10-B:C ³	1 outside in the vicinity of the exit.
Paint and lamp rooms.	40-B	1 outside space in the vicinity of the exit.
Inaccessible baggage, mail, and specie rooms, and storerooms.		None required.
Accessible baggage, mail, and specie rooms, and storerooms.	2-A	1 for each 2,500 sq ft or fraction thereof located in the vicinity of the exits, either inside or outside the spaces.
Refrigerated storerooms.	2-A	1 for each 2,500 sq ft or fraction thereof located in the vicinity of the exits, outside the spaces.
Carpenter, valet, photographic, printing shops sales rooms, etc.	2-A	1 outside the space in the vicinity of the exit.
<i>Machinery spaces</i>		
Coal-fired boilers: Bunker and boiler space.		None required.
Oil-fired boilers: Spaces, containing oil fired boilers, either main or auxiliary, or their fuel oil units.	40-B	2 required. ³
	160-B	1 required. ⁴

Internal combustion or gas turbine propelling machinery spaces.	40-B	1 for each 1,000 brake horsepower, but not less than 2 or more than 6.
	120-B	1 required. ⁵
Electric propulsive motors or generators of open type.	40-B:C	1 for each propulsion motor or generator unit.
Enclosed ventilating systems for motors and generators of electric propelling machinery.		None required.
Auxiliary spaces, internal combustion or gas turbine.	40-B	1 outside the space in the vicinity of the exit. ⁶
Auxiliary spaces, electric emergency motors or generators.	40-B:C	1 outside the space in the vicinity of the exit. ⁶
Auxiliary spaces, steam.		None required.
Trunks to machinery spaces.		None required.
Fuel tanks.		None required.
<i>Cargo spaces</i>		
Inaccessible during voyage, including trunks (excluding tanks).		None required.
Accessible during voyage.	2-A	1 for each 1,200 sq ft or fraction thereof.
Vehicular spaces (covered by a sprinkler system).	40-B	1, plus 1 for each 6,000 sq ft or fraction thereof.
Vehicular spaces (not covered by a sprinkler system).	40-B	1, plus 1 for each 1,500 sq ft or fraction thereof. ⁷
Cargo oil tanks.		None required.
Spare units.	2-A	(RANGE FROM 50-10) percent of the required number for public spaces rounded up.
	40-B	(RANGE FROM 50-10) percent of the required number for cargo spaces rounded up.
	40-B:C	1.

¹In any case, on vessels of 150 feet in length and over, there must be at least two 2-A units on each passenger deck.

²For vessels on an international voyage, substitute 1 20-B:C in the vicinity of the exit.

³Vessels of less than 1,000 GT and not on an international voyage require 1.

⁴Vessels of less than 1,000 GT and not on an international voyage may substitute 1 160-B.

⁵If an oil-burning donkey boiler is fitted in the space, the 160-B previously required for the protection of the boiler room may be substituted. Not required on vessels of less than 300 GT if the fuel has a flashpoint of 110 °F or lower except those on an international voyage.

⁶Not required on vessels of less than 300 GT if the fuel has a flashpoint higher than 110 °F.

⁷Two 5-B units may be substituted for 1 20-B unit.

The location of the equipment must be to the satisfaction of the Officer in Charge, Marine Inspection.

Nothing in this paragraph should be construed as limiting the Officer in Charge, Marine Inspection, from requiring such additional equipment as he or she deems necessary for the proper protection of the vessel.

(c) Semi-portable fire extinguishing systems must be located in the open so as to be readily seen.

(d) If portable fire extinguishers are not located in the open or behind glass so that they may be readily seen, they may be placed in enclosures together with the firehose, provided such enclosures are marked as required by § 78.47–20 of this subchapter.

(e) Portable fire extinguishers and their stations must be numbered in accordance with § 78.47–30 of this subchapter.

(f) Portable or semi-portable extinguishers, which are required on their nameplates to be protected from freezing, must not be located where freezing temperatures may be expected.

§ 76.50-15 [Removed]

98. Remove § 76.50-15.

99. Amend § 76.50-20 as follows:

a. Revise the section heading to read as follows;

b. In paragraphs (a) and (b), remove the text “size III, IV, and V” and add, in its place, the text “semi-portable”; and

c. Add paragraph (c) to read as follows:

§ 76.50-20 Semi-portable fire extinguishers.

* * * * *

(c) Each semi-portable extinguisher must be fitted with a suitable hose and nozzle, or other practicable means, so that all areas of the space can be protected.

100. Add § 76.50-80 to read as follows:

§ 76.50-80 Locations and number of fire extinguishers required for vessels constructed prior to [180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

(a) Vessels contracted for prior to [180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE], must meet the following requirements:

(1) Previously installed extinguishers with extinguishing capacities smaller than are required in Table 76.50–10(a) of this subpart need not be replaced and may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection; and

(2) All new equipment and installations must meet the applicable requirements in this subpart for new vessels.

(b) [Reserved]

PART 78—OPERATIONS

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

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 2103, 3306, 6101; 49 U.S.C. 5103, 5106; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; Department of Homeland Security Delegation No. 0170.1.

102. Revise § 78.47-13 to read as follows:

§ 78.47-13 Fire and automatic sprinkler alarm indicators.

(a) The fire detection, alarm, and automatic sprinkler indicators in the engine room must be identified by at least 1-inch red lettering as “FIRE ALARM” or “SPRINKLER ALARM” as appropriate. Where such alarm indicators on the bridge or in the fire control station do not form a cabinet, the indicators must be suitably identified as above.

(b) [Reserved]

PART 90—GENERAL PROVISIONS

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

Authority: 46 U.S.C. 3306, 3703; Pub. L. 103–206, 107 Stat. 2439; 49 U.S.C. 5103, 5106; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

§ 90.01-1 [Amended]

104. Amend § 90.01-1 to add, after the last sentence, the sentence “The regulations in this subchapter (parts 90, 91, 92, 93, 95, 96, 97, 98, and 105) have preemptive effect over State or local regulation within the same fields.”

PART 91—INSPECTION AND CERTIFICATION

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

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 3205, 3306, 3307; 46 U.S.C. Chapter 701; Executive Order 12234; 45 FR 58801; 3 CFR, 1980 Comp., p. 277; Executive Order 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; Department of Homeland Security Delegation No. 0170.1.

106. Add § 91.25-7 to read as follows:

§ 91.25-7 Incorporation by reference.

(a) Certain material is incorporated by reference into this subchapter 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 10 Standard for Portable Fire Extinguishers, 2010 Edition (NFPA 10”), IBR approved for § 91.25-20(a).

(2) [Reserved]

106. Amend § 91.25-20 as follows:

a. Revise section heading and paragraph (a)(1) to read as follows; and

b. In paragraphs (a)(2), (a)(3), (a)(4), and Table 91.25-20(a)(2), remove the word “shall” wherever it appears and add, in its place, the word “must”.

§ 91.25-20 Fire extinguishing equipment.

(a) * * *

(1) Portable and semi-portable extinguishers must be inspected and maintained in accordance with NFPA 10 (incorporated by reference, see § 91.25-7) as amended here:

(i) Certification or licensing by the state or local jurisdiction as a fire extinguisher servicing agency will be accepted by the Coast Guard as meeting the personnel certification requirements of NFPA 10 for annual maintenance and recharging of extinguishers.

(ii) Monthly inspections required by NFPA 10 may be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(iii) Non-rechargeable or non-refillable extinguishers must be inspected and maintained in accordance with NFPA 10; however, the annual maintenance need not be conducted by a certified person and can be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(iv) The owner or managing operator must provide satisfactory evidence of the required servicing to the marine inspector. If any of the equipment or records have not been properly maintained, a qualified servicing facility must perform the required inspections, maintenance procedures, and hydrostatic pressure tests. A tag issued by a qualified servicing organization, and attached to each extinguisher, may be accepted as evidence that the necessary maintenance procedures have been conducted.

* * * * *

PART 92—CONSTRUCTION AND ARRANGEMENT

108. The authority citation for part 92 continues to read as follows:

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

109. Amend § 92.07-1 as follows:

a. In paragraph (a), following the text “of § 92.07-90,”, remove the word “shall”; and following the text “4,000 gross tons”, remove the words “and over” and add, in their place, the words “or more”; and following the text “to January 1, 1962,” remove the word “shall” and add, in its place, the word “must”;

b. In paragraph (b), following the text “of § 92.07-90,”, remove the word “shall”; and following the text “300 gross tons”, remove the words “and over” and add, in their place, the words “or more”; and following the text “to January 1, 1962,” remove the word “shall” and add, in its place, the word “must”; and

c. Revise paragraph (c) to read as follows:

§ 92.07-1 Application.

* * * * *

(c) Vessels meeting the structural fire protection requirements of SOLAS, Chapter II-2, Regulations 5, 6, 8, 9, and 11, may be considered equivalent to the provisions of this subpart.

PART 95—FIRE PROTECTION EQUIPMENT

110. The authority citation for part 95 continues to read as follows:

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

111. Amend § 95.01-1 as follows:

a. In paragraph (a), remove the word “shall”; and

b. Revise paragraph (b) to read as follows:

§ 95.01-1 General.

* * * * *

(b) Equipment installed prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] as required by § 95.05-1(b) of this part may remain in service so long as it is maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

112. Revise § 95.01-2 to read as follows:

§ 95.01-2 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG-ENG), 2703 Martin Luther King Jr. Avenue, SE., Stop 7509, Washington, DC 20593-7509, and is available from the sources listed below. It is also available for inspection 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

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(b) ASTM International (formerly American Society for Testing and Materials), 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, 610-832-9585,

<http://www.astm.org>.

(1) ASTM F 1121–87 (1993), Standard Specification for International Shore Connections for Marine Fire Applications, IBR approved for § 95.10–10.

(2) [Reserved]

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

(1) International Code for Fire Safety Systems (FSS Code), 2007 Edition, IBR approved for § 95.05-3(a) and (b).

(2) [Reserved]

(d) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02269–9101, 800–344–3555, <http://www.nfpa.org>.

(1) NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition (“NFPA 13”), IBR approved for § 95.30–1.

(2) [Reserved]

(e) Navy Publications and Forms Center, Customer Service Code 1052, 5801 Tabor Ave., Philadelphia, PA 19120.

(1) Federal Specification ZZ-H-451G, Hose, Fire, Woven-Jacketed Rubber or Fabric-Lined, with Couplings, IBR approved for § 95.10-10(n).

(2) [Reserved]

(f) Underwriters Laboratories Inc. (UL), 333 Pfingsten Road Northbrook, IL 60062-2096, 919-549-1400, www.ul.com.

(1) UL 19-2001, Standard for Lined Fire Hose and Hose Assemblies (UL-19), IBR approved for § 95.10-10(n).

(2) [Reserved]

113. Amend § 95.01-5 as follows:

a. In paragraph (a), after the words “Where fire”, remove the words “detecting or”, and remove the word “shall” and add, in its place, the word “must”; and

b. Add new paragraph (b) to read as follows:

§ 95.01-5 Equipment installed but not required.

* * * * *

(b) Use of non-approved fire detection systems may be acceptable as excess equipment provided that--

(1) Components are listed and labeled by an independent, nationally recognized testing laboratory as set forth in 29 CFR 1910.7, and are designed, installed, tested, and maintained in accordance with an appropriate industry standard and the manufacturer’s specific guidance;

(2) Installation conforms to the requirements of 46 CFR, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105;

(3) Coast Guard plan review is completed for wiring plans; and

(4) The system and units remain functional as intended. To ensure this, marine inspectors may test and inspect the system during routine inspections.

Subpart 95.05—Fire Detection and Extinguishing Equipment

114. Revise the heading in subpart 95.05 to read as set forth above.

115. Revise § 95.05-1 to read as follows:

§ 95.05-1 Fire detection, manual alarm, and supervised patrol systems.

(a) Fire detection, manual alarm, and supervised patrol systems are not required except in special cases; but if installed, the systems must meet the applicable requirements of 46 CFR, part 76 of subchapter H (Passenger Vessels) of this chapter.

(b) In each compartment containing explosives, and in adjacent cargo compartments, there must be provided a smoke detection system. When used, sample extraction smoke detection systems must meet the requirements in § 95.05-3 of this part.

(c) Enclosed spaces which are “specially suitable for vehicles” must be fitted with a fire detection and alarm system.

116. Add new § 95.05-3 to read as follows:

§ 95.05-3 Sample extraction smoke detection systems.

(a) For vessels contracted for on or after [180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE], a sample extraction smoke detection system must be installed in accordance with chapter 10 of the FSS Code (incorporated by reference, see § 95.01-2).

(b) Periodically, the FSS Code defers to “the Administration.” For U.S. flag vessels, “the Administration” is the United States Coast Guard. The following requirements are provided for the provisions of Chapter 10 that defer to the Administration:

(1) For sequential scanning systems under FSS Code, chapter 10, paragraph 2.1.2, a satisfactory overall response time will be achieved by limiting the maximum allowable interval to 2 minutes.

(2) Under the FSS Code, chapter 10, paragraph 2.2.2, fans of sufficient capacity to provide a satisfactory overall response time will signal an alarm within 3 minutes upon introduction of smoke at the most remote accumulator on a vehicle deck and within 5 minutes upon introduction of smoke at the most remote accumulator in container and general cargo holds.

(3) Means provided to isolate smoke accumulators from liquid or refrigerated cargoes must be to the satisfaction of the Commanding Officer of the U.S. Coast Guard Marine Safety Center.

(4) Notwithstanding anything to the contrary in FSS Code chapter 10, periodic testing of sample extraction smoke detection systems must be conducted as part of the annual inspection and include inspection of all piping, valves, controls and alarms, and by introduction of smoke into the accumulators.

117. Amend § 95.10-5 as follows:

a. Remove the word “shall” wherever it appears and add, in its place, the word “must”;

b. Revise Table 95.10-5(a) to read as follows;

c. In paragraph (b), after the words “On vessels of 1,000 gross tons”, remove the words “and over” and add, in their place, the words “or more”; and

d. In paragraph (h), after the words “the installation of a total flooding”, remove the words “carbon dioxide” and add, in their place, the words “fixed fire extinguishing”.

§ 95.10-5 Fire pumps.

* * * * *

Table 95.10–5(a)—Fire Pump System Requirements

Gross tons		Minimum number of pumps	Hose and hydrant size, inches	Nozzle orifice size, inches	Length of hose feet
Over	Not over				
	100	¹ 1	¹ 1 1/2	¹ 1/2	¹ 50
100	1,000	1	1 1/2	5/8	50
1,000	1,500	2	1 1/2	5/8	50
1,500		2	² 2 1/2	² 7/8	² 50

¹On vessels of 65 feet in length or less, 3/4-inch hose of a good commercial grade together with a commercial garden hose nozzle may be used. The pump may be hand operated and the length of hose must be sufficient to assure coverage of all parts of the vessel.

²A 1 1/2-inch hose that is 75 feet in length with a 5/8-inch nozzle may be used where specified by § 95.10-10(b) of this subpart for interior locations and 50 feet of 1 1/2-inch hose may be used in exterior locations on vessels in other than ocean or coastwise service. For vessels on ocean or coastwise service, two 1 1/2-inch outlets, each provided with one 1 1/2-inch hose supplied through a wye connection may be substituted.

118. Amend § 95.10-10 as follows:

- a. Remove the word “shall” wherever it appears and add, in its place, the word “must”;
- b. Remove the words “fire hose” wherever they appear and add, in their place, the word “firehose”.
- c. Revise paragraph (b) to read as follows;
- d. In paragraph (c), remove the words “and over” wherever they appear and add, in their place, the words “or more”;
- e. In paragraph (g), after the words “at least one length of firehose, a spanner”, add the word “wrench”; and
- f. In paragraph (n)(3), following the word “Underwriters” remove the text “” wherever it appears; and following the text “Standard 19 or Federal Specification ZZ-H-451G”, add the text “(incorporated by reference, see § 95.01-2)”.

§ 95.10-10 Fire hydrants and hose.

* * * * *

(b) Instead of the 2 1/2-in hose and hydrants specified in table 95.10–5(a) of this subpart, on vessels of more than 1,500 gross tons:

(1) The hydrants in interior locations may have wye connections for 1 1/2-in hoses. In these cases, the hose must be 75 ft in length, and only one hose will be required at each fire station; however, if all such stations can be satisfactorily served with 50-ft lengths, a 50-ft hose may be used; and

(2) The hydrants for exterior locations may substitute two 1 1/2-in outlets, each with a 1 1/2-in hose supplied through a wye connection.

* * * * *

119. Revise § 95.30-1 to read as follows:

§ 95.30-1 Application.

Automatic sprinkler systems must comply with Chapter 25 of NFPA 13 (incorporated by reference, see § 95.01-2).

120. Revise § 95.50-1 to read as follows:

§ 95.50-1 Application.

(a) The provisions of this subpart, with the exception of §§ 95.50–80 and 95.50–90, as applicable, apply to all vessels, other than unmanned barges and fishing vessels, contracted for on or after November 19, 1952.

(b) Vessels contracted for prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] and on or after November 19, 1952, must meet the requirements of § 95.50–80 of this subpart.

(c) Vessels contracted for prior to November 19, 1952, must meet the requirements of § 95.50–90 of this subpart.

§ 95.50-5 [Reserved]

121. Remove and reserve § 95.50-5.

122. Revise § 95.50-10 to read as follows:

§ 95.50-10 Location.

(a) Approved portable fire extinguishers and semi-portable fire extinguishing systems must be installed in accordance with Table 95.50–10(a) of this section. The location of the equipment must be to the satisfaction of the Officer in Charge, Marine Inspection. Nothing in this paragraph should be construed as limiting the Officer in Charge, Marine Inspection, from requiring such additional equipment as he or she deems necessary for the proper protection of the vessel.

(b) Table 95.50-10(a) indicates the minimum required number and type of extinguisher for each space listed. Extinguishers with larger numerical ratings or multiple letter designations may be used if the extinguishers meet the requirements of the table.

Table 95.50–10(a)— Portable Fire Extinguisher and Semi-portable Fire Extinguishing Systems

Space	Minimum required rating	Quantity and location
<i>Safety areas¹</i>		
Wheelhouse or fire control room.		None required.
Stairway and elevator enclosures.		None required.
Communicating corridors.	2-A	1 in each main corridor not more than 150 ft apart. (May be located in stairways.)
Lifeboat embarkation and lowering stations.		None.

Radio room.	20-B:C ²	2 required in the vicinity of the exit. ²
<i>Accommodations¹</i>		
Staterooms, toilet spaces, public spaces, offices, lockers, isolated storerooms, pantries, open decks, etc.		None required.
<i>Service spaces¹</i>		
Galleys.	40-B:C	1 for each 2,500 sq ft or fraction thereof suitable for hazards involved.
Paint and lamp rooms.	40-B	1 outside space in the vicinity of the exit.
Accessible baggage, mail, specie rooms, and storerooms.	2-A	1 for each 2,500 sq ft or fraction thereof located in the vicinity of the exits, either inside or outside the spaces.
Carpenter shop and similar spaces.	2-A	1 outside the space in the vicinity of the exit.
<i>Machinery spaces</i>		
Coal-fired boilers: Bunker and boiler space.		None required.
Oil-fired boilers: Spaces containing oil-fired boilers, either main or auxiliary, or their fuel-oil units.	40-B	2 required ³ .
	160-B	1 required. ⁴
Internal combustion or gas turbine propelling machinery spaces.	40-B	1 for each 1,000 brake horsepower; not less than 2 but not more than 6. ⁵
	120-B	1 required. ^{6,7}
Electric propulsive motors or generators of an open type.	40-B:C	1 for each propulsion motor or generator unit.
Enclosed ventilating systems for motors and generators of electric propelling machinery.		None required.
<i>Auxiliary spaces:</i>		
Internal combustion or gas	40-B	1 outside the space in the vicinity

turbine.		of the exit. ⁷
Electric emergency motors or generators.	40-B:C	1 outside the space in the vicinity of the exit. ⁸
Steam.		None required.
Trunks to machinery spaces.		None required.
Fuel tanks.		None required.
<i>Cargo spaces</i>		
Inaccessible during voyage, including trunks and cargo tanks.		None required.
Accessible during voyage.		None required.
Spare Units.		
	2-A	(RANGE FROM 50-10) percent of the total number required rounded up.
	40-B:C	(RANGE FROM 50-10) percent of the total number required rounded up.
	20-B:C	1

¹For motorboats, the total number of portable fire extinguishers required for safety areas, accommodation spaces, and service spaces must be one 20-B for motorboats of less than 50 GT and two 20-B ratings for motorboats of 50 GT or more.

²For vessels on an international voyage, substitute one 20-C in the vicinity of the exit.

³Vessels of less than 1,000 gross tons require one.

⁴Vessels of less than 1,000 gross tons may substitute one 160-B.

⁵Only one is required for motorboats.

⁶If an oil-burning donkey boiler fitted in space, the 160-B previously required for the protection of the boiler may be substituted. Not required where a fixed carbon dioxide system is installed.

⁷Not required on vessels of less than 300 gross tons if the fuel has a flashpoint higher than 110 °F.

⁸Not required on vessels of less than 300 gross tons.

(c) Semi-portable fire extinguishing systems must be located in the open so as to be readily seen.

(d) If portable fire extinguishers are not located in the open or behind glass so that they may be readily seen, they may be placed in enclosures together with the

firehose, provided such enclosures are marked as required by § 97.37–15 of this subchapter.

(e) Portable fire extinguishers and their stations must be numbered in accordance with § 97.37–23 of this subchapter.

(f) Portable or semi-portable extinguishers, which are required on their nameplates to be protected from freezing, must not be located where freezing temperatures may be expected.

§ 95.50-15 [Removed]

123. Remove § 95.50-15.

124. Amend § 95.50-20 as follows:

a. Revise the section heading to read as follows;

b. In paragraph (a), remove the text “size III, IV, and V” and add, in its place, the text “semi-portable”;

c. In paragraph (b), remove the text “size III, IV, or V” and add, in its place, the text “semi-portable”; and

d. Add paragraph (c) to read as follows:

§ 95.50-20 Semi-portable fire extinguishers.

* * * * *

(c) Semi-portable extinguishers must be fitted with suitable hoses and nozzles, or other practicable means, so that all areas of the space can be protected.

125. Add § 95.50-80 to read as follows:

§ 95.50-80 Location and number of fire extinguishers required for vessels constructed prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

(a) Vessels contracted for prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] must meet the following requirements:

(1) Previously installed extinguishers with extinguishing capacities smaller than what is required in table 95.50–10(a) of this subpart need not be replaced and may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

(2) All new equipment and installations must meet the applicable requirements in this subpart for new vessels.

(b) [Reserved]

PART 107—INSPECTION AND CERTIFICATION

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

Authority: 43 U.S.C. 1333; 46 U.S.C. 3306, 3307; 46 U.S.C. 3316; Department of Homeland Security Delegation No. 0170.1; §107.05 also issued under the authority of 44 U.S.C. 3507.

127. Revise § 107.01 to read as follows:

§ 107.01 Purpose of subchapter.

This subchapter prescribes rules for the design, construction, equipment, inspection and operation of mobile offshore drilling units operating under the U.S. flag. The regulations in this subchapter (parts 107 through 109) have preemptive effect over State or local regulation within the same fields.

128. Revise § 107.115 to read as follows:

§ 107.115 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition (“NFPA 10”), IBR approved for § 107.235(a).

(2) [Reserved]

129. Amend § 107.235 as follows:

a. Revise section heading and paragraph (a) to read as follows;

b. Remove Table 107.235

§ 107.235 Servicing of portable fire extinguishers, semi-portable fire extinguishers and fixed fire extinguishing systems.

(a) Portable and semi-portable extinguishers must be inspected and maintained in accordance with NFPA 10 (incorporated by reference, see § 107.115) as amended here:

(1) Certification or licensing by the state or local jurisdiction as a fire extinguisher servicing agency will be accepted by the Coast Guard as meeting the personnel certification requirements of NFPA 10 for annual maintenance and recharging of extinguishers.

(2) Monthly inspections required by NFPA 10 may be conducted by the owner, operator, or person-in-charge or a designated member of the crew.

(3) Non-rechargeable or non-refillable extinguishers must be inspected and maintained in accordance with NFPA 10; however, the annual maintenance need not be conducted by a certified person and can be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(4) The owner or managing operator must provide satisfactory evidence of the required servicing to the marine inspector. If any of the equipment or records have not been properly maintained, a qualified servicing facility must perform the required inspections, maintenance procedures, and hydrostatic pressure tests. A tag issued by a qualified servicing organization, and attached to each extinguisher, may be accepted as evidence that the necessary maintenance procedures were conducted.

* * * * *

PART 108—DESIGN AND EQUIPMENT

130. 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.

131. Revise § 108.101 to read as follows:

§ 108.101 Incorporation by reference.

(a) Certain material is incorporated by reference into this subchapter with the approval of the Director of the **Federal Register** in accordance with 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) *American Society for Testing and Materials (ASTM)*, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, 610-832-9500, <http://www.astm.org>.

(1) ASTM D 93–97, Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester, IBR approved for § 108.500.

(2) ASTM F 1014–92, Standard Specification for Flashlights on Vessels, IBR approved for § 108.497.

(3) ASTM F 1121–87 (1993), Standard Specification for International Shore Connections for Marine Fire Applications, IBR approved for § 108.427.

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

(1) Resolution A.520(13), Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Life-saving Appliances and Arrangements, November 17, 1983, IBR approved for § 108.105.

(2) Resolution A.649(16), Code for the Construction and Equipment of Mobile Offshore Drilling Units (MODU Code), October 19, 1989 with amendments of June 1991, IBR approved for § 108.503.

(3) Resolution A.658(16), Use and Fitting of Retro-reflective Materials on Life-saving Appliances, November 20, 1989, IBR approved for §§ 108.645 and 108.649.

(4) Resolution A.760(18), Symbols Related to Life-saving Appliances and Arrangements, November 17, 1993, IBR approved for §§ 108.646, 108.647, 108.649, and 108.655.

(d) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition (“NFPA 13”), IBR approved for § 108.430.

(2) [Reserved]

§ 108.405 [Amended]

132. Amend § 108.405(a)(1) to add, after the words “Be approved by the Commandant” add the words “in accordance with 46 CFR 161.002”.

133. Revise § 108.430 to read as follows:

§ 108.430 General.

Automatic sprinkler systems must comply with Chapter 25 of NFPA 13 (incorporated by reference, see § 108.101).

134. Revise § 108.491 to read as follows:

§ 108.491 General.

(a) Each portable and semi-portable fire extinguisher on a unit must be approved under subpart 162.028 or 162.039 of this chapter.

(b) Vessels contracted for prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] must meet the following requirements:

(1) Previously installed extinguishers with extinguishing capacities smaller than what is required in Table 108.495 of this subpart need not be replaced and may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

(2) All new equipment and installations must meet the applicable requirements in this subpart for new vessels.

135. Revise § 108.495 to read as follows:

§ 108.495 Locations and number of fire extinguishers required.

Table 108.495 of this section indicates the minimum required number and type of fire extinguishers for each space listed. Extinguishers with larger numerical ratings or multiple letter designations may be used if the extinguishers meet the requirements of the table.

Table 108.495—Carriage of Portable Fire Extinguishers

Space	Minimum required rating	Quantity and location
Safety Areas		
Wheelhouse and control room.	20-B:C	2 in the vicinity of the exit.
Stairway and elevator enclosure.		None required.
Corridors.	2-A	1 in each corridor not more than 150 ft (45 m) apart. (May be located in stairways.)
Lifeboat embarkation and lowering stations.		None required.
Radio room.	10-B:C	2 in the vicinity of the exit.
Accommodations		
Staterooms, toilet spaces, public spaces, offices, lockers, small storerooms, pantries, open decks, and similar spaces.		None required.
Service Spaces		
Galleys.	40-B:C	1 for each 2,500 sq ft (232.2 sq m) or fraction thereof suitable for the hazards involved.
Paint and lamp rooms.	40:B	1 outside each room in the vicinity of the exit.
Storerooms.	2-A	1 for each 2,500 sq ft (232.2 sq m) or fraction thereof located in the vicinity of the exits, either inside or outside the spaces.
Workshop and similar spaces.	20B:C	1 outside each space in the vicinity of the exit.
Machinery Spaces		
Oil-fired boilers: Spaces containing oil-fired boilers, either main or auxiliary, or their fuel oil units.	40-B	2 required in each space.
	160-B	1 required in each space. See note 1.

Internal combustion or gas turbine propelling machinery spaces.	40-B	1 for each 1,000 brake horsepower but not less than 2 and not more than 6 in each space.
	120-B	1 required in each space. See note 1.
Motors or generators of electric propelling machinery that do not have an enclosed ventilating system.	40-B:C	1 for each motor or generator.
Motors and generators of electric propelling machinery that have enclosed ventilating systems.		None required.
Auxiliary Spaces		
Internal combustion engines or gas turbine.	40-B	Outside the space containing engines or turbines in the vicinity of the exit.
Electric emergency motors or generators.	40-B:C	1 outside the space containing motors or generators in the vicinity of the exit.
Steam driven auxiliary machinery.		None required.
Trunks to machinery spaces.		None required.
Fuel tanks.		None required.
Miscellaneous areas		
Helicopter landing decks.	160-B	1 at each access route.
Helicopter fueling facilities.	160-B	1 at each fuel transfer facility. See note 2.
Drill floor.	40-B:C	2 required.
Cranes with internal combustion engines.	40-B:C	1 required.
Spare units	2-A	(RANGE FROM 50-10) percent of the total required rounded up.
	40-B:C	(RANGE FROM 50-10) percent of the total required rounded up.

¹Not required where a fixed gas extinguishing system is installed.

²Not required where a fixed foam system is installed in accordance with § 108.489 of this subpart.

136. Amend § 108.496 as follows:

- a. Revise the section heading to read as follows;
- b. In paragraph (a), remove the text “size III, IV, and V” and add, in its place, the text “semi-portable”; and after the words “except a wheeled”, remove the words “size V” and add, in their place, the word “semi-portable”;
- c. In paragraph (b) introductory text, remove the word “semiportable” and add, in its place, the word “semi-portable”;
- d. In paragraph (b)(1), remove the text “size V”;
- e. In paragraph (b)(2), remove the text “size III, IV, and V”; and
- f. Add paragraph (c) to read as follows:

§ 108.496 Semi-portable fire extinguishers.

* * * * *

(c) Semi-portable extinguishers must be fitted with suitable hoses and nozzles, or other practicable means, so that all areas of the space can be protected.

PART 113—COMMUNICATION AND ALARM SYSTEMS AND EQUIPMENT

137. The authority citation for part 113 continues to read as follows:

Authority: 46 U.S.C. 3306, 3703; Department of Homeland Security Delegation No. 0170.1.

138. Revise § 113.05-7 to read as follows:

§ 113.05-7 Environmental tests.

(a) Communication, alarm system, control, and monitoring equipment, with the exception of fire and smoke detection and alarm systems, must meet the environmental tests of—

(1) Section 4–9–7, Table 9, of ABS Steel Vessel Rules (incorporated by reference, see § 110.10–1) or the applicable ENV category of Lloyd's Register Type Approval System—Test Specification Number 1 (incorporated by reference, see § 110.10–1); and

(2) IEC 60533 (incorporated by reference, see § 110.10–1) as appropriate.

(b) Components of smoke detection and alarm systems must be tested in accordance with 46 CFR 161.002.

PART 114—GENERAL PROVISIONS

139. The authority citation for part 114 continues to read as follows:

Authority: 46 U.S.C. 2103, 3306, 3703; Pub. L. 103–206, 107 Stat. 2439; 49 U.S.C. App. 1804; Department of Homeland Security Delegation No. 0170.1; § 114.900 also issued under 44 U.S.C. 3507.

140. Revise § 114.100 to read as follows:

§ 114.100 Purpose.

The purpose of this subchapter is to implement applicable sections of Subtitle II of Title 46, United States Code, which require the inspection and certification of small passenger vessels. The regulations in this subchapter (parts 114 through 122) have preemptive effect over State or local regulation within the same fields.

141. Amend § 114.400 to revise the definition of the term “Open to the atmosphere” to read as follows:

§ 114.400 Definitions of terms used in this subchapter.

* * * * *

Open to the atmosphere means a compartment that has at least 0.342 square meters of open area directly exposed to the atmosphere for each cubic meter (15 square inches for each cubic foot) of net compartment volume.

* * * * *

142. Revise § 114.600 to read as follows:

§ 114.600 Incorporation by reference.

(a) Certain material is incorporated by reference into this subchapter 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 a notice of change in the Federal Register and the material must be available to the public. All approved material is available for inspection at the U.S. Coast Guard, Office of Operating and Environmental Standards (CG-OES), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, and is available from the sources listed below. It is also available for inspection 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

(b) *American Boat and Yacht Council (ABYC)*, 613 Third Street, Suite 10, Annapolis, MD 21403, 410-990-4460, <http://www.abycinc.org>.

(1) A-1-93—Marine Liquefied Petroleum Gas (LPG) Systems, IBR approved for § 121.240.

(2) A-3-93—Galley Stoves, IBR approved for § 121.200.

(3) A-7-70-Boat Heating Systems, IBR approved for § 121.200.

(4) A-22-93—Marine Compressed Natural Gas (CNG) Systems, IBR approved for § 121.240.

(5) H-25-94-Portable Gasoline Fuel Systems for Flammable Liquids, IBR approved for § 119.458.

(6) P-1-93—Installation of Exhaust Systems for Propulsion and Auxiliary Engines, IBR approved for §§ 116.405, 119.425, and 119.430.

(c) *American Bureau of Shipping (ABS)*, ABS Plaza, 16855 Northchase Drive, Houston, TX 77060, 281-877-5800, <http://www.eagle.org>.

(1) Rules for Building and Classing Aluminum Vessels, 1975, IBR approved for § 116.300.

(2) Rules for Building and Classing Steel Vessels, 1995, IBR approved for §§ 119.410 and 120.360.

(3) Rules for Building and Classing Steel Vessels Under 61 Meters (200 Feet) in Length, 1983, IBR approved for § 116.300.

(4) Rules for Building and Classing Steel Vessels for Service on Rivers and Intracoastal Waterways, 1995, IBR approved for § 116.300.

(5) Guide for High Speed Craft, 1997, IBR approved for § 116.300.

(d) *American National Standards Institute (ANSI)*, 25 West 43rd Street, New York, NY 10036, 212-642-4900, <http://www.ansi.org>.

(1) A 17.1-1984, including supplements A 17.1a and b-1985, Safety Code for Elevators and Escalators, IBR approved for § 120.540.

(2) B 31.1–1986, Code for Pressure Piping, Power Piping, IBR approved for § 119.710.

(3) Z 26.1–1977, including 1980 supplement, Safety Glazing Materials For Glazing Motor Vehicles Operating on Land Highways, IBR approved for § 116.1030.

(e) *ASTM International (formerly American Society for Testing and Materials)*, 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, 610-832-9500, <http://www.astm.org>.

(1) ASTM B 96–93, Standard Specification for Copper-Silicon Alloy Plate, Sheet, Strip, and Rolled Bar for General Purposes and Pressure Vessels, IBR approved for § 119.440.

(2) ASTM B 117–97, Standard Practice for Operating Salt Spray (Fog) Apparatus, IBR approved for § 114.400.

(3) ASTM B 122/B 122M–95, Standard Specification for Copper-Nickel-Tin Alloy, Copper-Nickel-Zinc Alloy (Nickel Silver), and Copper-Nickel Alloy Plate, Sheet, Strip, and Rolled Bar, IBR approved for § 119.440.

(4) ASTM B 127–98, Standard Specification for Nickel-Copper Alloy (UNS NO4400) Plate, Sheet, and Strip, IBR approved for § 119.440.

(5) ASTM B 152–97a, Standard Specification for Copper Sheet, Strip, Plate, and Rolled Bar, IBR approved for § 119.440.

(6) ASTM B 209–96, Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate, IBR approved for § 119.440.

(7) ASTM D 93–97, Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester, IBR approved for § 114.400.

(8) ASTM D 635–97, Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position, IBR approved for § 119.440.

(9) ASTM D 2863–95, Standard Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-like Combustion of Plastics (Oxygen Index), IBR approved for § 119.440.

(10) ASTM E 84–98, Standard Test Method for Surface Burning Characteristics of Building Materials, IBR approved for §§ 116.405, 116.422, and 116.423.

(11) ASTM E 648–97, Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source, IBR approved for §§ 114.400 and 116.423.

(12) ASTM E 662–97, Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials, IBR approved for §§ 114.400 and 116.423.

(f) *Institute of Electrical and Electronics Engineers, Inc. (IEEE)*, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854, 800-678-4333, <http://www.ieee.org>.

(1) Standard 45–1977—Recommended Practice for Electrical Installations on Shipboard, IBR approved for § 120.340.

(2) [Reserved]

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

(1) Resolution A.520(13), Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Life-Saving Appliances and Arrangements—Resolution A.520(13), dated 17 November 1983, IBR approved for § 114.540.

(2) Resolution A.658(16), Use and Fitting of Retro-Reflective Materials on Life-Saving Appliances, Resolution A.658(16), dated 20 November 1989, IBR approved for § 122.604.

(3) Resolution A.688(17), Fire Test Procedures For Ignitability of Bedding Components, Resolution A.688(17) dated 06 November 1991, IBR approved for § 116.405.

(4) Resolution A.760(18), Symbols Related to Life-Saving Appliances and Arrangements, Resolution A.760(18) dated 17 November 1993, IBR approved for § 122.604.

(h) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition (“NFPA 10”), IBR approved for § 115.810.

(2) NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition (“NFPA 13”), IBR approved for §§ 116.439 and 116.440.

(3) ANSI/NFPA 17, Standard for Dry Chemical Extinguishing Systems, 1994 Edition (“NFPA 17”), IBR approved for § 118.425.

(4) ANSI/NFPA 17A, Standard for Wet Chemical Extinguishing Systems, 1994 Edition (“NFPA 17A”), IBR approved for § 118.425.

(5) ANSI/NFPA 70, National Electrical Code (NEC), 1996 Edition (“NFPA 70”), IBR approved for §§ 120.320(e) and (d), 120.340, and 120.372.

(6) NFPA 92B, Standard for Smoke Management Systems in Malls, Atria, and Large Areas, 1995 Edition (“NFPA 92B”), IBR approved for § 116.440.

(7) NFPA 261, Standard Method of Test For Determining Resistance of Mock-up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes, 1994 Edition (“NFPA 261”), IBR approved for §§ 114.400 and 116.423.

(8) ANSI/NFPA 302, Fire Protection Standard for Pleasure and Commercial Motor Craft, 1994 Edition (“NFPA 302”), Chapter 6, IBR approved for §§ 121.200 and 121.240.

(9) NFPA 306, Standard for the Control of Gas Hazards on Vessels, 1993 Edition (“NFPA 306”), IBR approved for § 115.710.

(10) NFPA 701, Standard Methods of Fire Tests for Flame-Resistant Textiles and Films, 1996 Edition (“NFPA 701”), IBR approved for § 116.423.

(11) NFPA 1963, Standard for Fire Hose Connections, 1993 Edition (“NFPA 1963”), IBR approved for § 118.320.

(i) Underwriters Laboratories Inc. (UL), 333 Pfingsten Road Northbrook, IL 60062-2096, 919-549-1400, www.ul.com.

(1) UL 19–2001, Standard for Lined Fire Hose and Hose Assemblies (UL 19), IBR approved for § 118.320.

(2) UL 174–1989, as amended through June 23, 1994, Household Electric Storage Tank Water Heaters, IBR approved for § 119.320.

(3) UL 486A–1992, Wire Connectors and Soldering Lugs For Use With Copper Conductors, IBR approved for § 120.340.

(4) UL 489–1995, Molded-Case Circuit Breakers and Circuit Breaker Enclosures, IBR approved for § 120.380.

(5) UL 595–1991, Marine Type Electric Lighting Fixtures, IBR approved for § 120.410.

(6) UL 710–1990, as amended through September 16, 1993, Exhaust Hoods For Commercial Cooking Equipment, IBR approved for § 118.425.

(7) UL 723–1993, as amended through April 20, 1994, Surface Burning Characteristics of Building Materials, IBR approved for §§ 114.400, 116.422, 116.423, and 116.425.

(8) UL 1056–1989, Fire Test of Upholstered Furniture, IBR approved for § 116.423.

(9) UL 1058–1989, as amended through April 19, 1994, Halogenated Agent Extinguishing System Units, IBR approved for § 118.410.

(10) UL 1102–1992, Non integral Marine Fuel Tanks, IBR approved for § 119.440.

(11) UL 1104–1981, as amended through May 4, 1988, Marine Navigation Lights, IBR approved for § 120.420.

(12) UL 1110–1988, as amended through May 16, 1994, Marine Combustible Gas Indicators, IBR approved for § 119.480.

(13) UL 1453–1988, as amended through June 7, 1994, Electric Booster and Commercial Storage Tank Water Heaters, IBR approved for § 119.320.

(14) UL 1570–1995, Fluorescent Lighting Fixtures, IBR approved for § 120.410.

(15) UL 1571–1995, Incandescent Lighting Fixtures, IBR approved for § 120.410.

(16) UL 1572–1995, High Intensity Discharge Lighting Fixtures, IBR approved for § 120.410.

(17) UL 1573–1995, Stage and Studio Lighting Units, IBR approved for § 120.410.

(18) UL 1574–1995, Track Lighting Systems, IBR approved for § 120.410.

PART 116—CONSTRUCTION AND ARRANGEMENT

143. The authority citation for part 116 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.

144. Amend § 116.400 to add paragraph (c) to read as follows:

§ 116.400 Application.

* * * * *

(c) Vessels meeting the structural fire protection requirements of SOLAS, Chapter II-2, Regulations 5, 6, 8, 9, and 11, may be considered equivalent to the provisions of this subpart.

145. Amend § 116.440 as follows:

a. In paragraph (a) introductory text, remove the text “(1000 square feet) or 20%” and add, in its place, the text “(1,000 square feet) or 20 percent”;

b. In paragraph (a)(3), remove the word “shall” and add, in its place, the word “must”;

c. In paragraph (b), remove the text “Sec. 76.33” and add, in its place, the text “§ 76.27”;

d. In paragraph (c), after the words “an automatic sprinkler system meeting NFPA 13”, add the words “(incorporated by reference, see § 114.600)”; and

e. Revise paragraph (d)(2) to read as follows:

§ 116.440 Atriums.

* * * * *

(d) * * *

(2) The smoke extraction system may be designed in accordance with the principles of NFPA 92B (incorporated by reference, see § 114.600).

* * * * *

PART 118—FIRE PROTECTION EQUIPMENT

146. The authority citation for part 118 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.

147. Amend § 118.115 as follows:

a. In paragraph (a), after the words “Except as otherwise required by paragraphs”, remove the words “(b) and (c) of this section” and add, in their place, the words “(b), (c), and (d) of this section”; and

b. Revise paragraph (d) to read as follows:

§ 118.115 Applicability to existing vessels.

* * * * *

(d) For vessels contracted for prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE], extinguishers with extinguishing capacities smaller than what is required in Table 118.500(a) of this part need not be replaced and may be

continued in service so long as they are maintained in good condition to the satisfaction of the OCMI. All new equipment and installations must meet the applicable requirements in this subpart for new vessels.

148. Revise § 118.120 to read as follows:

§ 118.120 Equipment installed but not required.

(a) Fire extinguishing equipment installed on a vessel in excess of the requirements of §§ 118.400 and 118.500 of this subchapter must be designed, constructed, installed, and maintained in a manner acceptable to the Commandant.

(b) Use of non-approved fire detection systems may be acceptable as excess equipment provided that--

(1) Components are listed and labeled by a nationally recognized testing laboratory (NRTL) as set forth in 29 CFR 1910.7, and are designed, installed, tested, and maintained in accordance with an appropriate industry standard and the manufacturer's specific guidance;

(2) Installation conforms to the requirements of 46 CFR, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105;

(3) Coast Guard plan review is completed for wiring plans; and

(4) The system and units remain functional as intended. To ensure this, marine inspectors may test and inspect the system during routine inspections.

149. Amend § 118.310 as follows:

a. Remove the words "fire hose" wherever they appear and add, in their place, the word "firehose"; and

b. Add paragraph (e) to read as follows:

§ 118.310 Fire main and hydrants.

* * * * *

(e) On vessels constructed after [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE], spanner wrenches must be provided for each 1 1/2-inch hose installation.

150. Amend § 118.400 as follows:

- a. In paragraph (b)(3), remove the text “B-II” and add, in its place, the text “40-B”;
- b. In paragraphs (b)(5)(i), (b)(5)(ii), and (b)(5)(iii), remove the word “shall” and add, in its place, the word “must”;
- c. In paragraph (c) introductory text, after the words “must be equipped with a”, remove the words “fire detecting system” and add, in its place, the words “fire detection and alarm system”, and after the words “that is installed in accordance with”, remove the text “§ 76.27” and add, in its place, the text “part 76”;
- d. In paragraph (d), remove the text “Sec. 118.425 of this part” and add, in its place, the text “ § 118.425 of this subpart”;
- e. Revise paragraph (e) to read as follows;
- f. In paragraph (f), after the words “a manual alarm system that meets the requirements in”, remove the words “§ 76.35” and add, in their place, the words “part 76”;
- g. Revise paragraph (g) to read as follows; and

h. In paragraph (h), after the words “that meets the requirements of”, remove the words “§ 76.23” and add, in their place, the words “part 76”.

§ 118.400 Where required.

* * * * *

(e) Except for continuously manned operating stations as allowed by paragraph (f) of this section, each accommodation space, control space, and service space must be fitted with the following systems:

(1) A smoke actuated fire detection system of a type approved by the Commandant that is installed in accordance with 46 CFR part 76 in subchapter H of this chapter; and

(2) A manual alarm system that meets the requirements in 46 CFR part 76 in subchapter H of this chapter.

* * * * *

(g) An enclosed vehicle space must be fitted with an automatic sprinkler system that meets the requirements of 46 CFR part 76 in subchapter H of this chapter; and

(1) A fire detection system of a type approved by the Commandant that is installed in accordance with 46 CFR part 76 in subchapter H of this chapter; or

(2) A smoke detection system of a type approved by the Commandant that is installed in accordance with 46 CFR part 76 in subchapter H of this chapter.

§ 118.410 [Amended]

151. Amend § 118.410 as follows:

a. In paragraph (f)(5)(i), after the words “must be equal to the gross volume of the system”, add the words “in cubic meters”, remove the number “160” and add, in its

place, the number “.624”, and remove the number “192” and add, in its place, the number “.749”; and

b. In paragraph (f)(6)(i), remove the number “480” and add, in its place, the number “1.88”.

152. Revise § 118.500 to read as follows:

§ 118.500 Required number, type, and location.

(a) Each portable fire extinguisher on a vessel must be of a type approved by the Commandant. The minimum number of portable fire extinguishers required on a vessel must be acceptable to the cognizant OCMI, but must be not less than the minimum number required by Table 118.500(a) of this section and other provisions of this section.

(b) Table 118.500(a) of this section indicates the minimum required number and type of extinguisher for each space listed. Extinguishers with larger numerical ratings or multiple letter designations may be used if the extinguishers meet the requirements of the table.

Table 118.500(a)—Required Portable Fire Extinguishers

Space	Minimum required rating	Quantity and location
Operating station	10-B:C	1.
Machinery space	40-B:C	1 in the vicinity of the exit.
Open vehicle deck	40-B	1 for every 10 vehicles.
Accommodation space	2-A	1 each for each 2,500 sq ft or fraction thereof.
Galley	40-B:C	1.
Pantry, concession stand	2-A	1 in the vicinity of the exit.

(c) A vehicle deck without a fixed sprinkler system and exposed to weather must have one 40-B portable fire extinguisher for every 10 vehicles, located near an entrance to the space.

(d) The frame or support of each semi-portable fire extinguisher permitted by paragraph (c) of this section must be welded or otherwise permanently attached to a bulkhead or deck.

PART 122—OPERATIONS.

153. The authority citation for part 122 continues to read as follows:

Authority: 46 U.S.C. 2103, 3306, 6101; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

154. Amend § 122.612 as follows:

a. Revise paragraphs (d) and (e) to read as follows;

b. Remove paragraph (g);

c. Redesignate paragraph (h) as paragraph (g); and

d. In newly redesignated paragraph (g), after the words “or as otherwise required by the”, remove the word “cognizant”, and following the words “installed, that agent” remove the word “shall” and add, in its place, the word “must”.

§ 122.612 Fire protection equipment.

* * * * *

(d) A manual fire alarm pull station must be conspicuously marked as such in clearly legible letters, and include brief, clear instructions for operation.

(e) An indicator for a fire detection and alarm system must be conspicuously marked in clearly legible letters “FIRE ALARM”.

* * * * *

PART 125—GENERAL

155. The authority citation for part 125 continues to read as follows:

Authority: 46 U.S.C. 2103, 3306, 3307; 49 U.S.C. App. 1804; Department of Homeland Security Delegation No. 0170.1.

156. Amend § 125.100 to add paragraph (f) to read as follows:

§ 125.100 Applicability.

* * * * *

(f) The regulations in this subchapter have preemptive effect over State or local regulations in the same field.

157. Revise § 125.180 to read as follows:

§ 125.180 Incorporation by reference.

(a) Certain material is incorporated by reference into this subchapter with the approval of the Director of the **Federal Register** in accordance with 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) American Bureau of Shipping (ABS), ABS Plaza, 16855 Northchase Drive, Houston, TX 77060, 281-877-5800, <http://www.eagle.org>.

(1) Rules for Building and Classing Steel Vessels Under 61 Meters (200 Ft) in Length (1983), IBR approved for § 127.210.

(2) Rules for Building and Classing Steel Vessels (1995), IBR approved for §§ 127.210 and 129.360.

(3) Rules for Building and Classing Aluminum Vessels (1975), IBR approved for § 127.210.

(4) Rules for Building and Classing Mobile Offshore Drilling Units (1994), IBR approved for §§ 133.140 and 133.150.

(c) American National Standards Institute (ANSI), 25 West 43rd St., New York, NY 10036, 212-642-4900, <http://www.ansi.org>.

(1) B 31.1–1986, Code for Pressure Piping, Power Piping, IBR approved for § 128.240.

(2) Z 26.1–1977 (including 1980 Supplement), Safety Code for Safety Glazing Materials for Glazing Motor Vehicles Operating on Land Highways, IBR approved for § 127.430.

(d) American Society of Mechanical Engineers (ASME) International, Three Park Avenue, New York, NY 10016–5990, 800-843-2763, <http://www.asme.org>.

(1) Boiler and Pressure Vessel Code Section I, Power Boilers, July 1989 with 1989 addenda, IBR approved for § 128.240.

(2) [Reserved]

(e) ASTM International (formerly American Society for Testing and Materials),
100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, 610-832-9500,
<http://www.astm.org>.

(1) ASTM D 93–97, Standard Test Methods for Flash Point by Pensky-Martens
Closed Cup Tester, IBR approved for § 128.310.

(2) [Reserved]

(f) American Boat and Yacht Council, Inc. (ABYC), 613 Third St. #10,
Annapolis, MD 21403, 410-990-4460, <http://www.abycinc.org>.

(1) A–3–1993, Galley Stoves, IBR approved for § 129.550.

(2) A–7–1970, Recommended Practices and Standards Covering Boat Heating
Systems, IBR approved for § 129.550.

(3) E–1–1972, Bonding of Direct-Current Systems, IBR approved for § 129.120.

(4) E–8–1994, Alternating-Current (AC) Electrical Systems on Boats, IBR
approved for § 129.120.

(5) E–9–1990, Direct-Current (DC) Electrical Systems on Boats, IBR approved
for § 129.120.

(g) Institute of Electrical and Electronics Engineers (IEEE), IEEE Service Center,
445 Hoes Lane, Piscataway, NJ 08855, 800-678-4333, <http://www.ieee.org>.

(1) No. 45–1977, Recommended Practice for Electric Installations on Shipboard,
IBR approved for § 129.340.

(2) [Reserved]

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

(1) Resolution A.520(13), Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Life-saving Appliances and Arrangements, dated 17 November 1983, IBR approved for § 133.40.

(2) Resolution A.658(16), Use and Fitting of Retro-Reflective Materials on Life-saving Appliances, dated November 20, 1989, IBR approved for §§ 131.855, 131.875, and 133.70.

(3) Resolution A.760(18), Symbols Related to Life-Saving Appliances and Arrangements, dated November 17, 1993, IBR approved for §§ 131.875, 133.70, and 133.90.

(4) International Convention for the Safety of Life at Sea (SOLAS), Consolidated Edition, 1992, IBR approved for § 133.90.

(i) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) ANSI/NFPA 70, National Electrical Code, 2011 Edition (“NFPA 70”), IBR approved for §§ 129.320, 129.340, and 129.370.

(2) NFPA 306, Control of Gas Hazards on Vessels, 1993 Edition (“NFPA 306”), IBR approved for § 126.160.

(3) NFPA 1963, Fire Hose Connections, 1993 Edition (“NFPA 1963”), IBR approved for § 132.130.

(4) ANSI/NFPA 302, Fire Protection Standard for Pleasure and Commercial Motor Craft, 2010 Edition (“NFPA 302”), IBR approved for § 129.550.

(j) Underwriters Laboratories, Inc. (UL), 333 Pfingsten Road Northbrook, IL 60062-2096, 919-549-1400, www.ul.com.

(1) UL 19–2001, Standard for Lined Fire Hose and Hose Assemblies (UL 19), IBR approved for § 132.130.

(2) UL 486A–1992, Wire Connectors and Soldering Lugs for Use with Copper Conductors, IBR approved for § 129.340.

(3) UL 489–1995, Molded-Case Circuit Breakers and Circuit-Breaker Enclosures, IBR approved for § 129.380.

(4) UL 57–1976, Electric Lighting Fixtures, IBR approved for § 129.410.

(5) UL 595–1991, Marine-Type Electric Lighting Fixtures, IBR approved for § 129.410.

(6) UL 1570–1995, Fluorescent Lighting Fixtures, IBR approved for § 129.410.

(7) UL 1571–1995, Incandescent Lighting Fixtures, IBR approved for § 129.410.

(8) UL 1572–1995, High Intensity Discharge Lighting Fixtures, IBR approved for § 129.410.

(9) UL 1573–1995, Stage and Studio Lighting Units, IBR approved for § 129.410.

(10) UL 1574–1995, Track Lighting Systems, IBR approved for § 129.410.

PART 132—FIRE-PROTECTION EQUIPMENT

158. The authority citation for part 132 continues to read as follows:

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

§ 132.210 [Removed]

159. Remove § 132.210.

160. Amend § 132.220 as follows:

a. In paragraph (a), remove the word “semiportable” and add, in its place, the word “semi-portable”;

b. Revise table 132.220 to read as follows;

c. Redesignate paragraphs (b) through (f) as paragraphs (c) through (g), respectively;

d. Add new paragraph (b) to read as follows;

e. In newly redesignated paragraphs (c) and (g), remove the word “semiportable” and add, in its place, the word “semi-portable”; and

f. In newly redesignated paragraph (e), remove the words “fire hose” and add, in their place, the word “firehose”.

§ 132.220 Installation.

* * * * *

Table 132.220—Required Portable and Semi-portable Fire Extinguishers

Space	Minimum required rating	Number and placement
Safety areas: Communicating passageways	2-A	1 in each main passageway, not more than 45.7 m (150 ft) apart (permissible in stairways).
Pilothouse	20-B:C	2 in the vicinity of the exit.
Service spaces: Galleys	40-B:C	1 for each 230 sq m (2,500 sq ft) or fraction thereof, suitable for hazards involved.
Paint lockers	40-B	1 outside space, in the vicinity of the exit.
Accessible baggage and storerooms	2-A	1 for each 230 sq m (2,500 sq ft) or fraction thereof, located in the vicinity of the exits, either inside or outside spaces.

Workshops and similar spaces	2-A	1 outside space in the vicinity of the exit.
Machinery spaces: Internal-combustion propulsion-machinery	40-B:C	1 for each 1,000 brake horsepower, but not fewer than 2 and more than 6.
	120-B	1 required. ^{1,2}
Electric propulsion motors or generators of open type	40-B:C	1 for each propulsion motor or generator unit.
Auxiliary spaces: Internal combustion	40-B	1 outside space in the vicinity of the exit. ²
Electric motors and emergency generators	40-B:C	1 outside space in the vicinity of the exit. ²
Spares		
	2-A	10 percent of the required number rounded up.
	40-B:C	10 percent of the required number rounded up.

¹Not required where a fixed gaseous fire extinguishing system is installed.

²Not required on vessels of less than 300 GT.

(b) Table 132.220 of this section indicates the minimum required number and type of extinguishers for each space listed. Extinguishers with larger numerical ratings or multiple letter designations may be used if the extinguishers meet the requirements of the table.

* * * * *

§ 132.230 [Removed and Reserved]

161. Remove and reserve § 132.230.

162. Revise § 132.240 to read as follows:

§ 132.240 Stowage of semi-portable fire extinguishers.

The frame or support of each semi-portable fire extinguisher must be secured to prevent the extinguisher from shifting in heavy weather.

163. Add § 132.250 to read as follows:

§ 132.250 Locations and number of fire extinguishers required for vessels constructed prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

(a) Vessels contracted for prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE], must meet the following requirements:

(1) Previously installed extinguishers with extinguishing capacities smaller than are required in Table 132.220 of this subpart need not be replaced and may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

(2) All new equipment and installations must meet the applicable requirements in this subpart for new vessels.

164. Revise § 132.340 to read as follows:

§ 132.340 Equipment installed although not required.

(a) A vessel may install fire extinguishing equipment beyond that required by this subchapter, unless the excess equipment in any way endangers the vessel or the persons aboard. This equipment must be listed and labeled by an independent, nationally recognized testing laboratory (NRTL) as that term is defined in 46 CFR 161.002-2, and must be designed, installed, tested, and maintained in accordance with an appropriate industry standard and the manufacturer's specific guidance.

(b) Use of non-approved fire detection systems may be acceptable as excess equipment, provided that--

(1) Components are listed and labeled by an NRTL as that term is defined in 46 CFR 161.002-2, and are designed, installed, tested, and maintained in accordance with an appropriate industry standard and the manufacturer's specific guidance;

(2) Installation conforms to the requirements of 46 CFR, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105;

(3) Coast Guard plan review is completed for wiring plans; and

(4) The system and units remain functional as intended. To ensure this, marine inspectors may test and inspect the system during routine inspections.

PART 147—HAZARDOUS SHIPS' STORES

165. The authority citation for part 147 continues to read as follows:

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

166. Amend § 147.1 by revising paragraph (d) to read as follows:

§ 147.1 Purpose and applicability.

* * * * *

(d) The regulations in this subchapter (46 CFR parts 147, 147A, and 148) have preemptive effect over State or local regulations in the same field.

167. Revise § 147.7 to read as follows:

§ 147.7 Incorporation by reference.

(a) Certain material is incorporated by reference into this subchapter with the approval of the Director of the **Federal Register** in accordance with 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) American Boat and Yacht Council, Inc. (ABYC), 613 Third St., Suite 10, Annapolis, MD 21403, 410-990-4460, <http://www.abycinc.org>.

(1) ABYC H-25-81, Portable Fuel Systems and Portable Containers for Flammable Liquids, May 12, 1981, IBR approved for § 147.45.

(2) [Reserved]

(c) American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE), Publication Sales Department, 1791 Tullie Circle, NE, Atlanta, GA 30329.

(1) ANSI/ASHRAE 34-78, Number Designation of Refrigerants, approved 1978, IBR approved for § 147.90.

(2) [Reserved]

(d) Compressed Gas Association, Inc. (CGA), 4221 Walney Road, 5th Floor, Chantilly, Virginia 20151, 703-788-2700, <http://www.cganet.com>.

(1) CGA Pamphlet C-6, Standards for Visual Inspection of Steel Compressed Gas Cylinders, 10th edition, March, 2010, IBR approved for § 147.65(b).

(2) [Reserved]

(e) National Fire Protection Association (NFPA), Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 12A, Standard on Halon 1301 Fire Extinguishing Systems, 2009 Edition (“NFPA 12A”), IBR approved for § 147.65(b).

(2) [Reserved]

(f) Public Health Service (PHS), Department of Health and Human Services (DHHS), Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, 866-512-1800, <http://www.gpo.gov>.

(1) PHS, DHHS Publication No. 84-2024, The Ship's Medicine Chest and Medical Aid at Sea, revised 1984, IBR approved for § 147.105.

(2) [Reserved]

(g) Underwriters Laboratories, Inc. (UL), 333 Pfingsten Road Northbrook, IL 60062-2096, 919-549-1400, www.ul.com.

(1) UL 30, Standard for Metal Safety Cans, 7th Ed., March 11, 1985, revised March 12, 1985 and March 3, 1987, IBR approved for § 147.45.

(2) UL 1185, Standard for Portable Marine Fuel Tanks, Second Edition, March 13, 1978, revised July 6, 1984, IBR approved for § 147.45.

(3) UL 1313, Standard for Nonmetallic Safety Cans for Petroleum Products, 1st Ed., March 15, 1982, revised January 3, 1984 and March 22, 1985, IBR approved for § 147.45.

(4) UL 1314, Standard for Special-Purpose Containers, 1st Ed., July 7, 1983, revised February 7, 1984 and September 23, 1986, IBR approved for § 147.45.

168. Revise § 147.65 to read as follows:

§ 147.65 Carbon dioxide and halon fire extinguishing systems.

(a) Carbon dioxide cylinders forming part of a fixed fire extinguishing system must be maintained as follows:

(1) Cylinders must be retested at least every 12 years. If a cylinder is discharged and more than 5 years have elapsed since the last test, it must be retested before recharging.

(2) Carbon dioxide cylinders must be rejected for further service when they—

(i) Leak;

(ii) Are dented, bulging, severely corroded, or otherwise in a weakened condition;

(iii) Have lost more than 5 percent of their tare weight; or

(iv) Have been involved in a fire.

(3) Cylinders which have contained gas agents for fixed fire extinguishing systems and have not been tested within 5 years must not be used to contain another compressed gas onboard a vessel, unless the cylinders are retested and re-marked in accordance with § 147.60(a)(3) and (a)(4) of this subpart.

(4) Flexible connections between cylinders and distribution piping of semi-portable or fixed carbon dioxide fire extinguishing systems and discharge hoses in semi-portable carbon dioxide fire extinguishing systems must be replaced or tested at a pressure of 6.9 MPa (1,000 psig). At test pressure, the pressure must not drop at a rate greater than 1.03 MPa (150 psi) per minute for a 2-minute period. The test must be performed when the cylinders are retested.

(b) Halon cylinders forming part of a fixed fire extinguishing system must be maintained as follows:

(1) The agent weight must be ascertained annually by one of the methods identified in paragraphs (b)(2) through (b)(4) of this section. Measured weights or liquid levels must be recorded and compared with the recommended fill levels and previous readings. If cylinder weight or liquid level, adjusted for temperature, shows a 5 percent loss of pressure, the cylinder must be refilled. If cylinder pressure, adjusted for temperature, shows a 10 percent loss of pressure, the cylinders must be refilled.

(2) The cylinders may be removed from the mounting racks and weighed.

(3) The contents of cylinders fitted with integral floating dipstick liquid level indicators may be measured with the dipstick indicator.

(4) With approval of the cognizant Officer in Charge, Marine Inspection (OCMI), liquid level indication measures such as ultrasonic/audiogauging or radioisotope gauging may be used, provided that all of the following conditions are met:

(i) Measurement equipment is calibrated for the cylinder wall thickness and halon liquid.

(ii) Calibration is verified by weighing the cylinders that indicate the lowest levels of halon in each release group, but in no case less than 10 percent of the inspected cylinders in each release group.

(iii) The acceptable liquid level is identified by the original system installer or coincides with all other cylinder liquid levels of the same release group.

(iv) Measurements are made by personnel skilled in ultrasonic/audiogauging or radioisotope gauging techniques.

(5) Effective 12 years after commissioning of the system or 5 years after the last hydrostatic test, whichever is later, the following inspections must be completed every 5 years:

(i) Cylinders continuously in service without discharging must be removed from mounting racks and given a complete external visual inspection. The inspection must be conducted in accordance with the CGA Pamphlet C-6 (incorporated by reference, see § 147.7).

(ii) The volume of agent must be ascertained either by removing and weighing the cylinder or by floating liquid level indicators, integral with the cylinder construction, taking into account adjustments necessary for cylinder temperature and pressure.

(6) Flexible connections between cylinders and distribution piping of fixed halon fire extinguishing systems must be:

(i) Visually inspected for damage, corrosion, or deterioration every year and replaced if found unserviceable; and

(ii) Inspected and tested in accordance with NFPA 12A, paragraph 6.3.1 (incorporated by reference, see § 147.7) except that hydrostatic testing must be performed every 12 years instead of every 5 years.

(7) During any inspection, cylinders must be removed from service if they--

(i) Leak;

(ii) Are dented, bulging, severely corroded, or otherwise in a weakened condition; or

(iii) Have been involved in a fire.

(c) Cylinders that have contained carbon dioxide or halon and have not been tested within 5 years must not be used to contain another compressed gas onboard a vessel, unless the cylinder is retested and re-marked in accordance with § 147.60(a)(3) and (a)(4) of this subpart.

PART 159—APPROVAL OF EQUIPMENT AND MATERIALS

169. The authority citation for part 159 continues to read as follows:

Authority: 46 U.S.C. 3306, 3703; 49 CFR 1.45, 1.46; Section 159.001–9 also issued under the authority of 44 U.S.C. 3507.

170. Revise § 159.001-1(b) to read as follows:

159.001-1 Purpose.

* * * * *

(b) The regulations in this subchapter (parts 159 through 164) have preemptive effect over State or local regulations in the same field.

171. Amend § 159.001-3 to add the definitions of “Marine Equipment Directive (MED)” and “Mutual Recognition Agreement (MRA)”, in alphabetical order, as follows:

§ 159.001-3 Definitions.

* * * * *

Marine Equipment Directive (MarED) means the European Community Council Directive 96/98/EC of December 20, 1996 on marine equipment, as amended.

* * * * *

Mutual Recognition Agreement (MRA) means an agreement between the United States and other Maritime Administrations or organized associations, such as the European Community and the European Free Trade Association that specifies equipment approval and monitoring processes through which parties of the MRA agree to approve equipment on behalf of all parties. An MRA allows reciprocal approval and acceptance of equipment between all parties.

* * * * *

172. Add subpart 159.003 to read as follows:

Subpart 159.003—Approvals Under Mutual Recognition Agreements (MRA)

Sec.

159.003-1 Purpose.

159.003-3 Acceptance of foreign approvals under an MRA.

159.003-5 Approval by the Coast Guard under an MRA.

159.003-7 Multiple approval numbers.

159.003-9 Products covered by MRAs.

Subpart 159.003—Approvals Under Mutual Recognition Agreements (MRA)

§ 159-003-1 Purpose.

This subpart contains the procedures for obtaining Coast Guard approval under a Mutual Recognition Agreement.

§ 159-003-3 Approvals issued by a foreign authority under a Mutual Recognition Agreement (MRA).

A Coast Guard approval issued by a foreign authority under an effective MRA is acceptable for any application where the regulations in this chapter require Coast Guard approval.

§ 159-003-5 Approval by the Coast Guard under a Mutual Recognition Agreement (MRA).

(a) Manufacturers must specify in writing that foreign approval under an MRA is requested.

(b) The Coast Guard Certificate of Approval will clearly identify that the product is approved to the foreign requirements under the MRA.

§ 159-003-7 Multiple approval numbers.

A product will not be issued a Coast Guard approval number by the Coast Guard if it already holds a Coast Guard approval number issued by a foreign authority under a Mutual Recognition Agreement.

§ 159-003-9 Products covered by Mutual Recognition Agreements (MRAs).

A complete list of equipment and materials approved by the Coast Guard under an MRA, as well as detailed information on marking and identifying items approved by foreign authorities under an MRA, is available online at

<http://cgmix.uscg.mil/Equipment/Default.aspx>.

173. Amend § 159.010-3 to revise paragraph (a)(2) to read as follows:

§ 159.010-3 Independent laboratory: Standards for acceptance.

(a) * * *

(2) Possess or have access to the apparatus, facilities, personnel, and calibrated instruments that are necessary to inspect and test the equipment or material under the applicable subpart. In addition, for testing conducted on or after July 1, 2012, on equipment subject to SOLAS requirements, they must have ISO/IEC 17025:2005 accreditation from an accreditation body that is a full member of the International Laboratory Accreditation Cooperation (ILAC) or a recognized accreditation body by the National Cooperation for Laboratory Accreditation (NACLA);

* * * * *

PART 160—LIFESAVING EQUIPMENT

174. 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; and Department of Homeland Security Delegation No. 0170.1.

Subpart 160.900 [Removed]

175. Remove subpart 160.900.

PART 161—ELECTRICAL EQUIPMENT

176. The authority citation for part 161 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; Department of Homeland Security Delegation No. 0170.1.

Subpart 161.002—Fire Detection Systems

177. Revise the heading for subpart 161.002 to read as set forth above.

178. Revise § 161.002-1 to read as follows:

§ 161.002-1 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Lifesaving and Fire Safety Division (CG-ENG-4), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) FM Global, ATTN: Librarian, 1151 Boston-Providence Turnpike, Norwood, MA 02062, 877-364-6726, <http://www.fmglobal.com>.

(1) ANSI FM 3260, American National Standard for Radiant Energy-Sensing Fire Detectors for Automatic Fire Alarm Signaling, February 2004, IBR approved for § 161.002–6(b).

(2) [Reserved]

(c) International Electrotechnical Commission (IEC), 3, Rue de Varembe, Geneva, Switzerland, +41 22 919 02 11, <http://www.iec.ch/>.

(1) IEC 60092-504, Electrical Installations in Ships – Part 504: Special Features – Control and Instrumentation, 2001 (“IEC 60092-504”), IBR approved for § 161.002–6(c) and (d).

(2) [Reserved]

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

(1) International Code for Fire Safety Systems (FSS Code), 2007 Edition, IBR approved for § 161.002–15(b).

(2) [Reserved]

(e) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 72, National Fire Alarm Code, 2010 Edition (“NFPA 72”), IBR approved for § 161.002–10(b).

(2) [Reserved]

(f) Underwriters Laboratories, Inc. (UL), 333 Pfingsten Road Northbrook, IL 60062-2096, 919-549-1400, www.ul.com.

(1) UL 38, Standard for Manual Signaling Boxes for Fire Alarm Systems, 2008, IBR approved for § 161.002–6(b).

(2) UL 268, Standard for Smoke Detectors for Fire Protective Signaling Systems, 2009, IBR approved for § 161.002–6(b).

(3) UL 464, Standard for Audible Signaling Appliances, 2009, IBR approved for § 161.002–6(b).

(4) UL 521, Standard for Heat Detectors for Fire Protective Signaling Systems, 1999, IBR approved for § 161.002–6(b).

(5) UL 864, Standard for Control Units and Accessories for Fire Alarm Systems, 2003, IBR approved for §§ 161.002–6(b) and 161.002–15(d).

(6) UL 1480, Standard for Speakers for Fire Alarm, Emergency, and Commercial and Professional Use, 2003, IBR approved for § 161.002–6(b).

(7) UL 1971, Standard for Signaling Devices for the Hearing Impaired, 2002, IBR approved for § 161.002–6(b).

179. Revise § 161.002-2 to read as follows:

§ 161.002-2 Definitions.

In this subpart, the term:

Device means individual components (e.g. detectors, control panels, alarms, etc.) that are used to comprise a fire detection system. Devices may receive Coast Guard approval in accordance with § 161.002-19 of this subpart.

Fire detection or fire detection and alarm systems system means a complete detection system that is designed to give warning of the presence of fire or smoke in the protected spaces. A complete system includes normal and emergency power supplies, control units, remote annunciator panels, fire detectors and/or smoke detectors, manual pull stations, and audible and visual alarms, which are distinct from the alarms of any other system not indicating fire.

Listed means equipment or materials included in a list published by an organization that is an accepted independent laboratory, as defined in 46 CFR 159.010, or

a nationally recognized testing laboratory, as set forth in 29 CFR 1910.7, whose listing states that either the equipment or material meets appropriate designated standards.

Nationally recognized testing laboratory (NRTL) means an organization that the Occupational Safety and Health Administration (OSHA) has recognized as meeting the requirements in 29 CFR 1910.7. These requirements are for the capability, control programs, complete independence, and reporting and complaint-handling procedures to test and certify specific types of products for workplace safety. This means, in part, that an organization must have the necessary capability both as a product safety testing laboratory and as a product certification body to receive OSHA recognition as an NRTL.

Sample extraction smoke detection systems means systems that collect and analyze air samples from protected spaces in order to detect products of combustion. A complete system includes a control unit, a blower box, accumulators, and a piping system with associated fittings.

§ 161.002-3 [Removed and Reserved]

180. Remove and reserve § 161.002-3.

181. Revise § 161.002-4 to read as follows:

§ 161.002-4 General requirements.

(a) The purpose of fire detection systems is to give warning of the presence of fire in the protected spaces. To meet this end, the basic requirements of these systems are reliability, sturdiness, simplicity of design, ease of servicing, and the ability to withstand shipboard shock and vibration and the adverse effects of sea humidity. All fire detection systems must be designed, constructed, tested, marked, and installed according to the

applicable standards as incorporated by reference in § 161.002–1 of this subpart and 46 CFR, subchapter J (Electrical Engineering) of this chapter.

(b) Approvals for detection systems issued before [180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] will remain valid until [2 YEARS AND 180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

(c) Detection systems installed, with a valid approval, before [2 YEARS AND 180 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE] may be maintained onboard vessels and repaired as indicated in 46 CFR 76.27-80(d).

182. Add new § 161.002-6 to read as follows:

§ 161.002-6 Testing Requirements.

(a) Devices must be tested and listed for fire service by an accepted independent laboratory, as accepted in accordance with § 159.010 of this subchapter, or by a NRTL as set forth in 29 CFR 1910.7.

(b) Each fire detection device must comply with the following standards (incorporated by reference, see § 161.002-1) as appropriate:

(1) Control units - UL 864, Standard for Control Units and Accessories for Fire Alarm Systems, 2003.

(2) Heat detectors - UL 521, Standard for Heat Detectors for Fire Protective Signaling Systems, 1999.

(3) Smoke detectors - UL 268, Standard for Smoke Detectors for Fire Protective Signaling Systems, 2009.

(4) Flame detectors - ANSI FM 3260, American National Standard for Radiant Energy-Sensing Fire Detectors for Automatic Fire Alarm Signaling, February 2004.

(5) Audible alarms - UL 464, Standard for Audible Signaling Appliances, 2009 or UL 1480, Standard for Speakers for Fire Alarm, Emergency, and Commercial and Professional Use, 2003.

(6) Visual alarms - UL 1971, Standard for Signaling Devices for the Hearing Impaired, 2002.

(7) Manual Signaling Boxes – UL 38, Standard for Manual Signaling Boxes for Fire Alarm Systems, 2008.

(c) All devices must be tested by an accepted independent laboratory, as defined in § 159.010 of this subchapter, to meet the marine environment testing requirements in Table 161.002-6(c) of this section. The test parameters are found in IEC 60092-504 (incorporated by reference, see § 161.002-1).

Table 161.002-6(c)—Marine Environmental Testing Requirements

	Category 1	Category 2	Category 3
IEC 60092-504 Environmental Type Test	All spaces not Category 2 or 3	Open deck or open to weather	Spaces containing navigation or communication equipment
1-Visual inspection	X	X	X
2-Functional test	X	X	X
3-High voltage test	X	X	X
4a-Power supply variations	X	X	X
4b-Power supply failure	X	X	X
5-Insulation resistance	X	X	X
6-Cold with gradual temp. change	X (5°C)	X (-25°C)	X (5°C)
7-Dry heat with gradual temp. change	X (55°C)	X (55°C)	X (55°C)
8-Damp heat, cyclic	X	X	X
9-Salt mist		X	

10-Vibration (sinusoidal)	X	X	X
11b-Inclination, dynamic	X ¹	X ¹	X ¹
13-Electrostatic discharge	X	X	X
14-Electromagnetic field	X	X	X
15-Conducted low frequency	X	X	X
16(a)-Conducted radio frequency (3 V rms)	X		
16(b)-Conducted radio frequency (10 V r.m.s.)		X	X
17-Burst/fast transients	X	X	X
18-Surge/slow transients	X	X	X
19(a)-Radiated emission (general power)	X		
19(b)-Radiated emission (bridge and deck zone)		X	X
20(a)-Conducted emission (general power)	X		
20(b)-Conducted emission (bridge and deck zone)		X	X

¹This test only needs to be completed if the device is in a location with moving mechanical parts.

(d) All fire detection system control units and remote annunciators must have enclosure protection as outlined in part 5 of IEC 60092-504 (incorporated by reference, see § 161.002-1) if the requirements exceed those of 46 CFR 111.01-9 of subchapter J. Otherwise, 46 CFR 111.01-9 must be complied with.

183. Revise § 161.002-8 to read as follows:

§ 161.002-8 Fire detection systems, general requirements.

(a) *General.* A fire detection system must consist of a power supply; a control unit on which visible and audible fire and trouble signaling indicators are located; fire and/or smoke detectors; and fire and/or smoke detector circuits, as required, originating from the control unit. Power failure alarm devices may be separately housed from the control unit and may be combined with other power failure alarm systems when specifically approved.

(b) [Reserved]

184. Revise § 161.002-9 to read as follows:

§ 161.002-9 Fire detection system, power supply.

The power supply for a fire detection system must meet the requirements of § 113.10–9 of 46 CFR, subchapter J (Electrical Engineering) of this chapter.

185. Revise § 161.002-10 to read as follows:

§ 161.002-10 Fire detection system control unit.

(a) *General.* The fire detection system control unit must meet the requirements of § 111.01–9 of 46 CFR, subchapter J (Electrical Engineering) of this chapter.

(b) *Electrical supervision — Circuits.* The circuits must comply with Chapter 23 of NFPA 72 (incorporated by reference, see § 161.002-1), and must be Class A or Class X pathway.

§ 161.002-12 [Removed]

186. Remove § 161.002-12.

§ 161.002-14 [Removed]

187. Remove § 161.002-14.

188. Revise § 161.002-15 to read as follows:

§ 161.002-15 Sample extraction smoke detection systems.

(a) *General.* The sample extraction smoke detection system must consist of a means for continuously exhausting an air sample from the protected spaces and testing the air for contamination with smoke, together with visual and audible alarms for indicating the presence of smoke.

(b) *Design.* The sample extraction smoke detection system must be designed and capable of being installed in accordance with 46 CFR, subchapter J (Electrical Engineering) of this chapter and the FSS Code (incorporated by reference, see § 161.002-1).

(c) *Power Supply.* The power supply for the sample extraction smoke detection system must meet the requirements of § 113.10–9 of 46 CFR, subchapter J (Electrical Engineering) of this chapter.

(d) *Control Unit Standards.* The control unit must be listed by either a NRTL as set forth in 29 CFR 1910.7 or an independent laboratory that is accepted by the Commandant under part 159 of this chapter. The listing must be to the standards specified in 2.2.6 of Chapter 10 of the annex of IMO Resolution MSC.292(87), or UL 864 (incorporated by reference, see § 161.002-1).

189. Amend § 161.002-18 as follows:

a. Revise the section heading to read as follows;

b. In paragraph (a) introductory text, remove the text “(CG-521)” and add, in its place, the text “(CG-ENG-4)”;

- c. In paragraph (a)(2), after the words “including information concerning installation,”, add the words “maintenance, limitations,”;
- d. Revise paragraph (a)(3) to read as follows;
- e. Redesignate paragraph (a)(4) as paragraph (a)(5);
- f. Add new paragraph (a)(4) to read as follows;
- g. In newly redesignated paragraph (a)(5), remove the word “annunicator” and add, in its place, the word “annunciator”;
- h. In paragraph (c) introductory text, remove the word “shall” and add, in its place, the word “must”; and after the words “in paragraphs” remove the text “(a)(4)(i) through (a)(4)(iii)” and add, in its place, the text “(a)(5)(i) through (a)(5)(iii)”;
- i. In paragraph (d)(2), after the word “paragraph”, remove the text “(a)(4)” and add, in its place, the text “(a)(5)”;
- j. In paragraph (d)(3), remove the words “the testing and listing or certification of fire-protective systems indicating compliance with the standards and compatibility with the system” and add, in their place, the words “or an NRTL as set forth in 29 CFR 1910.7 is required to document compliance with § 161.002-6 of this subpart.”; and
- k. In paragraph (e), after the words “in paragraphs” remove the text “(a)(4)(i) through (a)(4)(iii)” and add, in its place, the text “(a)(5)(i) through (a)(5)(iii)”.

§ 161.002-18 System method of applications for type approval.

(a) * * *

(3) Proof of listing the system devices meeting the requirements of § 161.002-4(a) of this subpart.

(4) One copy of the complete test report(s) meeting the requirements of § 161.002-6 of this subpart generated by an independent laboratory accepted by the Commandant under part 159 of this chapter or an NRTL as set forth in 29 CFR 1910.7. A current list of Coast Guard accepted laboratories may be obtained from the following website: <http://cgmix.uscg.mil/>. A current list of NRTLs may be obtained from the following website: <http://www.osha.gov/dts/otpca/nrtl/index.html>.

* * * * *

190. Add § 161.002-19 to read as follows:

§ 161.002-19 Device method of application for type approval.

(a) The manufacturer must submit the following material to Commandant (CG-ENG-4), U.S. Coast Guard Headquarters, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509:

(1) A formal written request that the device be reviewed for approval.

(2) Three copies of the device's instruction manual, including information concerning installation, maintenance, limitations, programming, operation, and troubleshooting.

(3) Proof of listing the device meeting the requirements of § 161.002-4(a) of this subpart.

(4) One copy of the complete test report(s) meeting the requirements of § 161.002-6 of this subpart generated by an independent laboratory accepted by the Commandant under part 159 of this chapter or an NRTL as set forth in 29 CFR 1910.7. A current list of Coast Guard accepted laboratories may be obtained from the following

website: <http://cgmix.uscg.mil/>. A current list of NRTLs may be obtained from the following website: <http://www.osha.gov/dts/otpc/nrtl/index.html>.

(b) To apply for a revision, the manufacturer must submit—

(1) A written request under paragraph (a) of this section;

(2) Updated documentation under paragraph (a)(2) of this section;

(3) Proof of listing the device meeting the requirements of § 161.002-4(a) of this subpart; and

(4) A report by an independent laboratory accepted by the Commandant under part 159 of this chapter or an NRTL as set forth in 29 CFR 1910.7 is required to document compliance with § 161.002-6 of this subpart.

(c) If the Coast Guard approves the device or a revision to a device, it issues a certificate, normally valid for a 5-year term.

PART 162—ENGINEERING EQUIPMENT

191. The authority citation for part 162 continues to read as follows:

Authority: 33 U.S.C. 1321(j), 1903; 46 U.S.C. 3306, 3703, 4104, 4302; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; Department of Homeland Security Delegation No. 0170.1.

Subpart 162.027-Combination Firehose Nozzles

192. Revise the heading for subpart 162.027 to read as set forth above.

193. Redesignate §§ 162.027-1, 162.027-2, and 162.027-3 as §§ 162.027-2, 162.027-3, and 162.027-4, respectively, and add new § 162.027-1 to read as follows:

§ 162.027-1 Scope.

This subpart prescribes requirements for approval of combination firehose nozzles.

194. Revise newly redesignated § 162.027-2 to read as follows:

§ 162.027-2 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 a notice of change in the **Federal Register** and the material must be available to the public. All approved material is available for inspection at the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) ASTM International (formerly American Society for Testing and Materials), 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, 610-832-9500, <http://www.astm.org>.

(1) ASTM F 1546/F 1546 M–96, Standard Specification for Fire hose Nozzles, 2006 (“ASTM F 1546”), IBR approved for §§ 162.027–3(a), (b), and (c), and 162.027–4(a) and (c).

(2) [Reserved]

(c) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 1964 Standard for Spray Nozzles, 2008 Edition (“NFPA 1964”), IBR approved for §§ 162.027-3(a), (b), and (c) and 162.027-4(a), (c), and (d).

(2) [Reserved]

195. Revise newly redesignated § 162.027-3 to read as follows:

§ 162.027-3 Design, construction, testing, and marking requirements.

(a) Each combination solid stream and water spray firehose nozzle required to be approved under the provisions of this subpart must be of brass or bronze, except for hardware and other incidental parts, which may be of rubber, plastic, or stainless steel, and designed, constructed, tested, and marked in accordance with the requirements of ASTM F 1546 or NFPA 1964 (incorporated by reference, see § 162.027-2).

(b) All inspections and tests required by ASTM F 1546 or NFPA 1964 must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted by the Coast Guard as meeting subpart 159.010 of this chapter may be obtained by contacting the Commandant (CG-ENG).

(c) The independent laboratory must prepare a report on the results of the testing and must furnish the manufacturer with a copy of the test report upon completion of the testing required by ASTM F 1546 or NFPA 1964.

196. Revise newly redesignated § 162.027-4 to read as follows:

§ 162.027-4 Approval procedures.

(a) Firehose nozzles designed, constructed, tested, and marked in accordance with ASTM F 1546 or NFPA 1964 (incorporated by reference, see § 162.027-2) are considered to be approved under the provisions of this chapter.

(b) Firehose nozzles designed, constructed, tested, and marked in accordance with the provisions of this subpart in effect prior to June 24, 1996, are considered to be approved under the provisions of this chapter.

(c) A follow-up program must be established and maintained to ensure that no unauthorized changes have been made to the design or manufacture of type approved firehose nozzles. Acceptable follow-up programs include factory inspection programs administered by the accepted independent laboratory that performed the initial inspections and tests relied on by the type approval holder, or special configuration control programs implemented through a quality control flow chart and core procedures administered by the manufacturer and certified by an international standards agency such as the International Organization for Standardization (ISO).

(d) Applicants seeking type approval of firehose nozzles must assemble a submittal package consisting of--

(i) A cover letter requesting type approval of the equipment;

(ii) A test report from the accepted independent laboratory showing compliance of the firehose nozzle with ASTM F 1546 or NFPA 1964;

(iii) A copy of the contract for a follow-up program with the accepted independent laboratory or evidence of an ISO 9001 certified special configuration control program or similar program implemented through a quality control flow chart and core procedure; and

(iv) Documentation of the firehose nozzle, including an exterior drawing, assembly drawing, components list, and bill of material.

(e) All documentation must be mailed to Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509.

(f) Upon examination of the submittal package and approval by the Commandant, a Coast Guard Certificate of Approval will be issued valid for 5 years so long as the follow-up program for the firehose nozzle is maintained.

(g) Upon application, a Certificate of Approval for a firehose nozzle may be renewed for successive 5-year periods without further testing so long as no changes have been made to the products, the follow-up program has been maintained, and no substitutions of or changes to the standards listed in § 162.027-2 of this subpart have been made.

197. Revise § 162.028-1 to read as follows:

§ 162.028-1 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 a notice of change in the **Federal Register** and the material must be available to the public. All approved material is available for inspection at the U.S. Coast Guard, Office of Design and Engineering Standards (CG-ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, and is available from the sources listed below. It is also available for inspection 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

(b) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition (“NFPA 10”), IBR approved for § 162.028-2(a).

(2) [Reserved]

(c) Underwriters Laboratories Inc. (UL), 333 Pfingsten Road Northbrook, IL 60062-2096, 919-549-1400, www.ul.com.

(1) UL 8, Standard for Foam Fire Extinguishers, Sixth Edition, 2005, IBR approved for § 162.028-3(a).

(2) UL 154, Standard for Carbon-Dioxide Fire Extinguishers, Ninth Edition, 2005, IBR approved for § 162.028-3(a).

(3) UL 299, Standard for Dry Chemical Fire Extinguishers, Tenth Edition, 2002, IBR approved for § 162.028-3(a).

(4) UL 626, Standard for 2 ½-Gallon Stored Pressure, Water-Type Fire Extinguishers, Eighth Edition, 2005, IBR approved for § 162.028-3(a).

(5) UL 711, Standard for Rating and Testing of Fire Extinguishers, Seventh Edition, 2004, IBR approved for §§ 162.028-2(a) and 162.028-3(a).

(6) UL 2129, Standard for Halocarbon Agent Fire Extinguishers, Second Edition, 2005, IBR approved for § 162.028-3.

198. Amend § 162.028-2 by revising paragraph (a) to read as follows:

§ 162.028-2 Classification.

(a) Portable and semi-portable extinguishers must be marked with a combined number and letter designation. The letter designates the general class of fire for which the extinguisher is suitable as identified in NFPA 10 (incorporated by reference, see § 162.028-1). The number indicates the relative extinguishing potential of the device as rated by UL 711 (incorporated by reference, see § 162.028-1).

* * * * *

199. Revise § 162.028-3 to read as follows:

§ 162.028-3 Requirements.

(a) In addition to the requirements of this subpart, every portable fire extinguisher must be tested and listed for marine use by a recognized laboratory as defined in 46 CFR 159.001-3, and must comply with the following standards (incorporated by reference, see § 162.028-1), as appropriate:

- (1) UL 8, Standard for Foam Fire Extinguishers;
- (2) UL 154, Standard for Carbon-Dioxide Fire Extinguishers;
- (3) UL 299, Standard for Dry Chemical Fire Extinguishers;
- (4) UL 626, Standard for 2½-Gallon Stored Pressure, Water-Type Fire Extinguishers;
- (5) UL 711, Standard for Rating and Testing of Fire Extinguishers; and
- (6) UL 2129, Standard for Halocarbon Agent Fire Extinguishers.

(b) Every portable fire extinguisher must be self-contained; when charged, it must not require any additional source of extinguishing agent or expellant energy for its operation during the time it is being discharged. It must weigh no more than 50 pounds when fully charged.

(c) Every portable fire extinguisher must be supplied with a suitable bracket which will hold the extinguisher securely in its stowage location on vessels or boats, and which is arranged to provide quick and positive release of the extinguisher for immediate use. During vibration testing, the extinguisher must be tested in the marine bracket.

(d) Every portable extinguisher may be additionally examined and tested to establish its reliability and effectiveness in accordance with the intent of this specification for a “marine type” portable fire extinguisher when considered necessary by the Coast Guard or by the recognized laboratory.

200. Amend § 162.028-4 by revising paragraph (a) to read as follows:

§ 162.028-4 Marine type label.

(a) In addition to all other markings, every portable extinguisher must bear a label containing Coast Guard approval number, thus: “Marine Type USCG Type Approval No. 162.028/____.”

* * * * *

201. Revise § 162.028-5 to read as follows:

§ 162.028-5 Recognized laboratories.

A list of recognized independent laboratories that can perform approval tests of portable fire extinguishers is available from the Commandant and online at <http://cgmix.uscg.mil>.

202. Revise § 162.028-7 to read as follows:

§ 162.028-7 Procedure for listing and labeling.

(a) Manufacturers having models of extinguishers they believe are suitable for marine service may make application for listing and labeling of such product as a

“marine-type” portable fire extinguisher by addressing a request directly to a recognized laboratory. The laboratory will inform the submitter as to the requirements for inspection, examinations, and testing necessary for such listing and labeling. All costs in connection with the examinations, tests, inspections, listing, and labeling are payable by the manufacturer.

(b) [Reserved]

Subpart 162.039—Extinguishers, Fire, Semi-portable, Marine Type

203. Revise the heading for subpart 162.039 to read as set forth above.

204. Revise § 162.039-1 to read as follows:

§ 162.039-1 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 a notice of change in the **Federal Register** and the material must be available to the public. All approved material is available for inspection at the U.S. Coast Guard, Office of Design and Engineering Standards (CG-ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, and is available from the sources listed below. It is also available for inspection 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

(b) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, (“NFPA 10”), IBR approved for § 162.039-2(a).

(2) [Reserved]

(c) Underwriters Laboratories Inc. (UL), 333 Pfingsten Road Northbrook, IL 60062-2096, 919-549-1400, www.ul.com.

(1) UL 8, Standard for Foam Fire Extinguishers, Sixth Edition, 2005, IBR approved for § 162.039-3(a).

(2) UL 154, Standard for Carbon-Dioxide Fire Extinguishers, Ninth Edition, 2005, IBR approved for § 162.039-3(a).

(3) UL 299, Standard for Dry Chemical Fire Extinguishers, Tenth Edition, 2002, IBR approved for § 162.039-3(a).

(4) UL 626, Standard for 2 ½-Gallon Stored Pressure, Water-Type Fire Extinguishers, Eighth Edition, 2005, IBR approved for § 162.039-3(a).

(5) UL 711, Standard for Rating and Testing of Fire Extinguishers, Seventh Edition, 2004, IBR approved for §§ 162.039-2(a) and 162.039-3(a).

(6) UL 2129, Standard for Halocarbon Agent Fire Extinguishers, Second Edition, 2005, IBR approved for § 162.039-3(a).

205. Amend § 162.039-2 to revise paragraph (a) to read as follows:

§ 162.039-2 Classification.

(a) Portable and semi-portable extinguishers must be marked with a combined number and letter designation. The letter designates the general class of fire for which

the extinguisher is suitable as identified in NFPA 10 (incorporated by reference, see § 162.039-1). The number indicates the relative extinguishing potential of the device as rated by UL 711 (incorporated by reference, see § 162.039-1).

(b) [Reserved]

206. Revise § 162.039-3 to read as follows:

§ 162.039-3 Requirements.

(a) In addition to the requirements of this subpart, every semi-portable fire extinguisher must be tested and listed for marine use by a recognized laboratory as defined in 46 CFR 159.001-3, and must comply with the following standards (incorporated by reference, see § 162.039-1), as appropriate:

(1) UL 8, Standard for Foam Fire Extinguishers;

(2) UL 154, Standard for Carbon-Dioxide Fire Extinguishers;

(3) UL 299, Standard for Dry Chemical Fire Extinguishers;

(4) UL 626, Standard for 2 ½-Gallon Stored Pressure, Water-Type Fire

Extinguishers;

(5) UL 711, Standard for Rating and Testing of Fire Extinguishers; and

(6) UL 2129, Standard for Halocarbon Agent Fire Extinguishers.

(b) Every semi-portable fire extinguisher must be self-contained; when charged, it must not require any additional source of extinguishing agent or expellant energy for its operation during the time it is being discharged. It must weigh more than 50 pounds, when fully charged.

(c) Every semi-portable fire extinguisher must be supplied with a suitable bracket which will hold the extinguisher securely in its stowage location on vessels or boats, and

which is arranged to provide quick and positive release of the extinguisher for immediate use.

(d) Every semi-portable extinguisher may be additionally examined and tested to establish its reliability and effectiveness in accordance with the intent of this specification for a “marine type” semi-portable fire extinguisher when considered necessary by the Coast Guard or by the recognized laboratory.

207. Revise § 162.039-4 to read as follows:

§ 162.039-4 Marine type label.

(a) In addition to all other markings, every semi-portable extinguisher must bear a label containing the “marine type” listing manifest issued by a recognized laboratory. This label will include the Coast Guard approval number, thus: “Marine Type USCG Type Approval No. 162.039/____.”

(b) All such labels are to be obtained only from the recognized laboratory and will remain under its control until attached to a product found acceptable under its inspection and labeling program.

208. Revise § 162.039-5 to read as follows:

§ 162.039-5 Recognized laboratories.

(a) A list of recognized independent laboratories that can perform approval tests of semi-portable fire extinguishers is available from the Commandant and online at <http://cgmix.uscg.mil>.

(b) [Reserved]

209. Amend § 162.039-7, by revising first sentence in paragraph (a) to read as follows.

§ 162.039-7 Procedure for listing and labeling.

(a) Manufacturers having models of extinguishers they believe are suitable for marine service may make application for listing and labeling of such product as a “marine type” semi-portable fire extinguisher by addressing a request directly to a recognized laboratory. * * *

* * * * *

210. Add subpart 162.163 to read as follows:

Subpart 162.163—Portable Foam Applicators

Sec.

162.163-1 Scope.

162.163-2 Incorporation by reference.

162.163-3 Performance, design, construction, testing, and marking requirements.

162.163-4 Approval procedures.

Subpart 162.163—Portable Foam Applicators

§ 162.163-1 Scope.

This subpart prescribes requirements for approval of portable foam applicators, each consisting of a portable foam nozzle, eductor, pick-up tube, and a portable supply of foam concentrate, in ro-ro spaces and certain machinery spaces, as required by the International Convention for the Safety of Life at Sea (SOLAS).

§ 162.163-2 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

a notice of change in the **Federal Register** and the material must be available to the public. All approved material is available for inspection at the U.S. Coast Guard, Office of Design and Engineering Standards (CG-ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, and is available from the sources listed below. It is also available for inspection 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

(b) Underwriters Laboratories (UL), 333 Pfingsten Road Northbrook, IL 60062-2096, 919-549-1400, www.ul.com.

(1) UL 162, Standard for Foam Equipment and Liquid Concentrates, Seventh Edition, 1994, IBR approved for §§ 162.163-3(d), (e), and (f) and 162.163-4(a) and (c).

(2) [Reserved]

§ 162.163-3 Performance, design, construction, testing, and marking requirements.

(a) The portable foam applicator must produce foam suitable for extinguishing an oil fire at a minimum foam solution rate of 200 l/min (53 gpm).

(b) The portable foam applicator must have a portable tank containing 20 liters or more of foam concentrate, along with one 20-liter spare tank. The Coast Guard has deemed available 5-gallon (19 liter) foam concentrate pails as the equivalent of, and an acceptable substitute for, the 20-liter tanks.

(c) This portable foam applicator provision may be complied with by the carriage of either--

(1) Type approved portable foam applicators, with either integral or separate eductors of fixed percentage and foam concentrate designed, constructed, tested, marked, and approved under the provisions of this section and § 162.163-4 of this subpart; or

(2) Components and foam concentrate that are parts of type approved deck and heli-deck foam systems approved under the provisions of § 162.033 of this part. Suitable components include mechanical foam nozzles with pick-up tubes, and mechanical foam nozzles with separate inline eductors, along with the corresponding foam concentrate.

(d) Each portable foam applicator required to be approved under the provisions of this subpart must be of brass or bronze, except for hardware and other incidental parts which may be of rubber, plastic, or stainless steel and, in combination with a foam concentrate, must be designed, constructed, tested, and marked in accordance with the requirements of UL 162 (incorporated by reference, see § 162.163-1).

(e) All inspections and tests required by UL 162 must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted by the Coast Guard as meeting subpart 159.010 of this chapter may be obtained by contacting the Commandant (CG-ENG).

(f) The independent laboratory must prepare a report on the results of the testing and must furnish the manufacturer with a copy of the test report upon completion of the testing required by UL 162.

§ 162.163-4 Approval procedures.

(a) Portable foam applicators designed, constructed, tested, and marked in accordance with UL 162 (incorporated by reference, see § 162.163-1) are considered to be approved under the provisions of this chapter.

(b) A follow-up program must be established and maintained to ensure that no unauthorized changes have been made to the design or manufacture of type approved portable foam applicators and foam concentrates. Factory inspection programs administered by the accepted independent laboratory that performed the initial inspections and tests relied on by the type approval holder are acceptable.

(c) Applicants seeking type approval of portable foam applicators must assemble a submittal package consisting of--

(i) A cover letter requesting type approval of the equipment;

(ii) A test report from the accepted independent laboratory showing compliance of the portable foam applicator with UL 162;

(iii) A copy of the contract for a follow-up program with the accepted independent laboratory; and

(iv) Documentation of the portable foam applicator, including an exterior drawing, assembly drawing, components list, and bill of material.

(d) All documentation must be mailed to Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509.

(e) Upon examination of the submittal package and approval by the Commandant, a Coast Guard Certificate of Approval will be issued valid for 5 years so long as the follow-up program for the portable foam applicator is maintained.

(f) Upon application, a Certificate of Approval for a portable foam applicator may be renewed for successive 5-year periods without further testing so long as no changes have been made to the products, the follow-up program has been maintained, and no substitutions of or changes to the standard listed in § 162.163-1 of this subpart have been made.

PART 164--MATERIALS

211. 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.

212. Add § 164.006-6 to read as follows:

§ 164.006-6 Alternative Materials.

Products approved under approval series 164.106 may be used where products approved under this subpart are required.

213. Add § 164.007-10 to read as follows:

§ 164.007-10 Alternative materials.

Products approved under approval series 164.107 may be used where products approved under this subpart are required.

214. Add § 164.008-8 to read as follows:

§ 164.008-8 Alternative materials.

Products approved under approval series 164.108 may be used where products approved under this subpart are required.

215. Add § 164.009-26 to read as follows:

§ 164.009-26 Alternative materials.

Products approved under approval series 164.109 may be used where products approved under this subpart are required.

216. Add § 164.012-16 to read as follows:

§ 164.012-16 Alternative materials.

Products approved under approval series 164.112 may be used where products approved under this subpart are required.

217. Add subpart 164.105 to read as follows:

Subpart 164.105—Deck Assemblies (A-60) For SOLAS Vessels

Sec.

164.105-1 Scope.

164.105-2 Incorporation by reference.

164.105-3 Testing, marking, and inspection requirements.

164.105-4 Approval procedures.

Subpart 164.105—Deck Assemblies (A-60) For SOLAS Vessels

§ 164.105-1 Scope.

This subpart prescribes requirements for approval of deck assemblies (A-60) for SOLAS vessels as required by the International Convention for the Safety of Life at Sea (SOLAS).

§ 164.105-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

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

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.105-3(a).

(2) [Reserved]

§ 164.105-3 Testing, marking, and inspection requirements.

(a) Each deck assembly submitted for type approval must be tested for non-combustibility under Annex 1, Part 1 and then tested for fire resistance under Annex 1, Part 3 of the FTP Code (incorporated by reference, see § 164.105-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as a deck assembly.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.105-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

218. Add subpart 164.106 to read as follows:

Subpart 164.106—Primary Deck Coverings For SOLAS Vessels

Sec.

164.106-1 Scope.

164.106-2 Incorporation by reference.

164.106-3 Testing, marking, and inspection requirements.

164.106-4 Approval procedures.

Subpart 164.106—Primary Deck Coverings For SOLAS Vessels

§ 164.106-1 Scope

This subpart prescribes requirements for approval of primary deck coverings for SOLAS vessels as required by the International Convention for the Safety of Life at Sea (SOLAS).

§ 164.106-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

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

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.106-3(a).

(2) [Reserved]

§ 164.106-3 Testing, marking, and inspection requirements.

(a) Each primary deck covering submitted for type approval must be tested in accordance with the flame spread procedures specified in Part 6 of Annex 1 and the smoke density and toxicity criteria in Part 2 of Annex 1 of the FTP Code (incorporated by reference, see § 164.106-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as a primary deck covering.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.106-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

219. Add subpart 164.107 to read as follows:

Subpart 164.107—Structural Insulation (A-60) For SOLAS Vessels

Sec.

164.107-1 Scope.

164.107-2 Incorporation by reference.

164.107-3 Testing, marking, and inspection requirements.

164.107-4 Approval procedures.

Subpart 164.107—Structural Insulation (A-60) For SOLAS Vessels

§ 164.107-1 Scope.

This subpart prescribes requirements for approval of structural insulation (A-60) for SOLAS vessels as required by the International Convention for the Safety of Life at Sea (SOLAS). Products approved under these requirements may be used in place of products required to be approved as meeting the requirements of § 164.007 of this part.

§ 164.107-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) International Maritime Organization (IMO), Publications Section, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611,

www.imo.org/publications.

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.107-3(a).

(2) [Reserved]

§ 164.107-3 Testing, marking, and inspection requirements.

(a) Each structural insulation (A-60) submitted for type approval must be tested in accordance with the non-combustibility test under Annex 1, Part 1 and then tested for fire resistance under Annex 1, Part 3 of the FTP Code (incorporated by reference, see § 164.107-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as a structural insulation.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.107-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

220. Add subpart 164.108 to read as follows:

Subpart 164.108—Bulkheads (B-0 and B-15) For SOLAS Vessels

Sec.

164.108-1 Scope.

164.108-2 Incorporation by reference.

164.108-3 Testing, marking, and inspection requirements.

164.108-4 Approval procedures.

Subpart 164.108—Bulkheads (B-0 and B-15) For SOLAS Vessels

§ 164.108-1 Scope.

This subpart prescribes requirements for approval of bulkheads (B-0 and B-15) for SOLAS vessels as required by the International Convention for the Safety of Life at Sea (SOLAS). Products approved under these requirements may be used in place of products required to be approved as meeting the requirements of § 164.008 of this part.

§ 164.108-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

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

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.108-3(a).

(2) [Reserved]

§ 164.108-3 Testing, marking, and inspection requirements.

(a) Each bulkhead (B-0 & B-15) submitted for type approval must be tested in accordance with non-combustibility under Annex 1, Part 1 and then tested for fire resistance under Annex 1, Part 3 of the FTP Code (incorporated by reference, see § 164.108-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no

changes have been made to the product that may adversely affect its fire performance as a bulkhead.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.108-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

221. Add subpart 164.109 to read as follows:

Subpart 164.109—Non-combustible Materials (SOLAS)

Sec.

164.109-1 Scope.

164.109-2 Incorporation by reference.

164.109-3 Testing, marking, and inspection requirements.

164.109-4 Approval procedures.

Subpart 164.109—Non-combustible Materials (SOLAS)

§ 164.109-1 Scope.

This subpart prescribes requirements for approval of non-combustible materials for use on SOLAS vessels as required by the International Convention for the Safety of Life at Sea (SOLAS). Products approved under these requirements may be used in place of products required to be approved as meeting the requirements of § 164.009 of this part.

§ 164.109-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

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

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (2010 FTP Code), IBR approved for § 164.109-3(a).

(2) [Reserved]

(c) International Standards Organization (ISO), Case postale 56, CH-1211 Geneva 20, Switzerland, +41 22 749 01 11, <http://www.iso.org>.

(1) ISO 1182-2002 Reaction to fire tests for products -- Non-combustibility test, IBR approved for § 164.109-3(a).

(2) [Reserved]

§ 164.109-3 Testing, marking, and inspection requirements.

(a) Non-combustible materials submitted for type approval must be tested in accordance with Annex 1, Part 1 of the FTP Code (incorporated by reference, see § 164.109-2) except that ISO 1182-2002 (incorporated by reference, see § 164.109-2) may be used as an alternative to ISO 1182-1990. Five specimens must be tested and the test need not last longer than 30 minutes.

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this

chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as a non-combustible material.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.109-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

222. Add subpart 164.110 to read as follows:

Subpart 164.110—Continuous Ceilings (B-0 and B-15) (SOLAS)

Sec.

164.110-1 Scope.

164.110-2 Incorporation by reference.

164.110-3 Testing, marking, and inspection requirements.

164.110-4 Approval procedures.

Subpart 164.110—Continuous Ceilings (B-0 and B-15) (SOLAS)

§ 164.110-1 Scope.

This subpart prescribes requirements for approval of continuous ceilings (B-0 and B-15) for SOLAS vessels as required by the International Convention for the Safety of Life at Sea (SOLAS).

164.110-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG-ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, and is available from the sources listed below. It is also available for inspection 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

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

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.110-3(a).

(2) [Reserved]

§ 164.110-3 Testing, marking, and inspection requirements.

(a) Continuous Ceilings (B-0 and B-15) (SOLAS) submitted for type approval must be tested for non-combustibility under Annex 1, Part 1 and then tested for fire resistance under Annex 1, Part 3, Appendix 2 of the FTP Code (incorporated by reference, see § 164.110-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as a continuous ceiling.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.110-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's

suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

223. Add subpart 164.111 to read as follows:

Subpart 164.111—Draperies, Curtains, and Other Suspended Textiles

Sec.

164.111-1 Scope.

164.111-2 Incorporation by reference.

164.111-3 Testing, marking, and inspection requirements.

164.111-4 Approval procedures.

Subpart 164.111—Draperies, Curtains, And Other Suspended Textiles

§ 164.111-1 Scope.

This subpart prescribes requirements for approval of draperies, curtains, and other suspended textiles as required by the International Convention for the Safety of Life at Sea (SOLAS).

§ 164.111-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

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

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.111-3(a).

(2) [Reserved]

§ 164.111-3 Testing, marking, and inspection requirements.

(a) Draperies, curtains, and other suspended textiles submitted for type approval must be tested for qualities of resistance to the propagation of flame not inferior to those

of wool of mass 0.8 kg/m² under Annex 1, Part 7 of the FTP Code (incorporated by reference, see § 164.111-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as draperies, curtains and other suspended textiles.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.111-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The

Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

224. Add subpart 164.112 to read as follows:

Subpart 164.112—Interior Finish (Bulkheads and Ceiling Finishes) (SOLAS)

Sec.

164.112-1 Scope.

164.112-2 Incorporation by reference.

164.112-3 Testing, marking, and inspection requirements.

164.112-4 Approval procedures.

Subpart 164.112—Interior Finish (Bulkheads and Ceiling Finishes) (SOLAS)

§ 164.112-1 Scope.

This subpart prescribes requirements for approval of interior finishes (bulkheads and ceiling finishes) for SOLAS vessels as required by the International Convention for

the Safety of Life at Sea (SOLAS). Products approved under these requirements may be used in place of products required to be approved as meeting the requirements of § 164.012 of this part.

§ 164.112-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

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

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.112-3(a).

(2) [Reserved]

§ 164.112-3 Testing, marking, and inspection requirements.

(a) Interior Finishes (Bulkheads and ceiling finishes) for SOLAS vessels submitted for type approval must be tested for surface flammability in Annex 1, Part 5, and the smoke density and toxicity criteria of Annex 1, Part 2 of the FTP Code (incorporated by reference, see § 164.112-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as an interior finish.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.112-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

225. Add subpart 164.117 to read as follows:

Subpart 164.117—Floor Finish (SOLAS)

Sec.

164.117-1 Scope.

164.117-2 Incorporation by reference.

164.117-3 Testing, marking, and inspection requirements.

164.117-4 Approval procedures.

Subpart 164.117—Floor Finish (SOLAS)

§ 164.117-1 Scope.

This subpart prescribes requirements for approval of floor finishes for SOLAS vessels as required by the International Convention for the Safety of Life at Sea (SOLAS).

§ 164.117-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

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

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.117-3(a).

(2) [Reserved]

§ 164.117-3 Testing, marking, and inspection requirements

(a) Floor Finishes for SOLAS vessels submitted for type approval must be tested for surface flammability in Annex 1, Part 5, and the smoke density and toxicity criteria of Annex 1, Part 2 of the FTP Code (incorporated by reference, see § 164.117-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as a floor finish.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.117-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

226. Add subpart 164.136 to read as follows:

Subpart 164.136—Fire Doors

Sec.

164.136-1 Scope.

164.136-2 Incorporation by reference.

164.136-3 Testing, marking, and inspection requirements.

164.136-4 Approval procedures.

Subpart 164.136—Fire Doors

§ 164.136-1 Scope.

This subpart prescribes requirements for approval of fire doors as required by the International Convention for the Safety of Life at Sea (SOLAS). Products approved under these requirements may be used where fire doors of the same class are required in domestic vessels.

§ 164.136-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG-ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, and is available from the sources listed below. It is also available for inspection 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

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

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.136-

3(a).

(2) [Reserved]

§ 164.136-3 Testing, marking, and inspection requirements.

(a) Fire doors submitted for type approval must be tested for non-combustibility under Annex 1, Part 5, and then tested for fire resistance under Annex 1, Part 3 of the FTP Code (incorporated by reference, see § 164.136-2). Adhesives used in the construction of fire doors need not be non-combustible, but they must be tested for low flame spread characteristics under Annex 1, Part 5 of the FTP Code and should be included in the approved door's follow-up program.

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as a fire door.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.136-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

227. Add subpart 164.137 to read as follows:

Subpart 164.137—Windows

Sec.

164.137-1 Scope.

164.137-2 Incorporation by reference.

164.137-3 Testing, marking, and inspection requirements.

164.137-4 Approval procedures.

Subpart 164.137—Windows

§ 164.137-1 Scope.

This subpart prescribes requirements for approval of windows as required by the International Convention for the Safety of Life at Sea (SOLAS).

§ 164.137-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) International Maritime Organization (IMO), Publications Section, 4 Albert

Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611,
www.imo.org/publications.

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.137-3(a).

(2) Recommendation of fire resistance tests for “A”, “B” and “F” class divisions (“Resolution A.754(18)”), IBR approved for § 164.137-3(a).

§ 164.137-3 Testing, marking, and inspection requirements.

(a) Windows submitted for type approval must be tested for fire resistance under Annex 1, Part 3 of the FTP Code (incorporated by reference, see § 164.137-2 of this subpart). Windows must also meet the thermal radiation test supplement to fire resistance, as outlined in Appendix 1 of Part 3 of the FTP Code, and the hose stream test of paragraph 5 of Appendix A.1 of Resolution A.754(18) (incorporated by reference, see § 164.137-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as a window.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.137-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid

for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

228. Add subpart 164.138 to read as follows:

Subpart 164.138—Fire Stops (Penetration Seals)

Sec.

164.138-1 Scope.

164.138-2 Incorporation by reference.

164.138-3 Testing, marking, and inspection requirements.

164.138-4 Approval procedures.

Subpart 164.138—Fire Stops (Penetration Seals)

§ 164.138-1 Scope.

This subpart prescribes requirements for approval of fire stops (penetration seals) as required by the International Convention for the Safety of Life at Sea (SOLAS).

§ 164.138-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

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

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.138-3(a).

(2) Recommendation of fire resistance tests for “A”, “B” and “F” class divisions (“Resolution A.754(18)”), IBR approved for § 164.138-3(a).

§ 164.138-3 Testing, marking, and inspection requirements.

(a) Fire stops (penetration seals) submitted for type approval must be tested for fire resistance under Annex 1, Part 3 of the FTP Code (incorporated by reference, see § 164.138-2). Such devices must also be tested in accordance with Appendices A.III and A.IV of Resolution A.754(18) (incorporated by reference, see § 164.138-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up,

dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as a fire stop.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.138-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information

submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

229. Add subpart 164.139 to read as follows:

Subpart 164.139—Dampers

Sec.

164.139-1 Scope.

164.139-2 Incorporation by reference.

164.139-3 Testing, marking, and inspection requirements.

164.139-4 Approval procedures.

Subpart 164.139—Dampers

§ 164.139-1 Scope.

This subpart prescribes requirements for approval of fire dampers as required by the International Convention for the Safety of Life at Sea (SOLAS).

§ 164.139-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources

listed below. It is also available for inspection 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

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

(1) IMO Resolution MSC.307(88), Adoption of the International Code for the Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.139-3(a).

(2) Recommendation of fire resistance tests for “A”, “B” and “F” class divisions (“Resolution A.754(18)”), IBR approved for § 164.139-3(a).

§ 164.139-3 Testing, marking, and inspection requirements.

(a) Automatic fire dampers that are installed in A-class divisions that are submitted for type approval must be tested for fire resistance under Annex 1, Part 3 of the FTP Code (see § 164.139-2). Such devices must also be tested in accordance with Appendix A-II of Resolution. A.754(18) (incorporated by reference, see § 164.139-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as a fire damper.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and shall furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

164.139-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations,

and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

230. Add subpart 164.141 to read as follows:

Subpart 164.141—Plastic Pipes

Sec.

164.141-1 Scope.

164.141-2 Incorporation by reference.

164.141-3 Testing, marking, and inspection requirements.

164.141-4 Approval procedures.

Subpart 164.141—Plastic Pipes

§ 164.141-1 Scope.

This subpart prescribes requirements for approval of plastic piping systems. Plastic piping systems include the pipe, fittings, system joints, method of joining, and any internal or external liners, coverings, and coatings required to comply with the performance criteria of this subpart.

§ 164.141-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG-ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, and is available from the sources listed below. It is also available for inspection 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

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

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.141-3(c).

(2) Resolution A.653(16), Recommendation on Improved Fire Test Procedures for Surface Flammability of Bulkhead, Ceiling and Deck Finish Materials (“IMO Resolution A.653(16)”), IBR approved for § 164.141-3(a).

(3) Resolution A.753(18), Guidelines for the Application of Plastic Pipe on Ships, as amended by IMO Resolution MSC.313(88) (“IMO Resolution A.653(16)”), IBR approved for § 164.141-3(a) and (b).

§ 164.141-3 Testing, marking, and inspection requirements.

(a) All plastic piping submitted for approval must meet the flame spread

requirements of IMO Resolution A.653(16) as modified for pipes by IMO Resolution A.753(18) (incorporated by reference, see § 164.141-2) except that--

(1) The test specimens need not be wrapped in aluminum foil; and

(2) Testing need not be conducted on every pipe size. Testing may be conducted on piping sizes with the maximum and minimum wall thickness intended to be approved. This will qualify all piping sizes within the tested range.

(b) In order to receive approval for fire endurance, pipe must be tested as indicated in IMO Resolution A.753(18). When satisfying the requirements for L1 or L2 service, the pipe will be approved for use in lesser service grades. The approval of piping systems of sizes different than those tested will be allowed as provided for in Table 164.141(a) of this subpart.

Table 164.141(a)—Approval of Piping Systems of Sizes Different than Tested

Size* Tested, inch	Minimum Size* Approved,	Maximum Size* Approved, inch
0 to ≤ 2	Size Tested	Size Tested
>2 to ≤ 6	Size Tested	≤ 6
>6 to ≤ 12	Size Tested	≤ 12
>12 to ≤ 24	Size Tested	≤ 24
>24 to ≤ 36	Size Tested	≤ 36
>36 to ≤ 48	Size Tested	≤ 48

* Nominal outside diameter

(c) To be approved for smoke and toxicity requirements, piping systems must meet the requirements of Annex 1, Part 2 of the FTP Code (incorporated by reference, see § 164.141-2) with the following modifications:

(1) Plastic piping meeting paragraph 2.2 of Annex 2 of the FTP Code as having

very low flame spread when tested to Part 5 are deemed to meet the smoke and toxicity requirements without testing to Part 2.

(2) Testing need only be conducted on piping sizes with the maximum and minimum wall thicknesses intended to be approved.

(3) The test sample should be fabricated by cutting pipes lengthwise into individual sections and then assembling the sections into a test sample as representative as possible of a flat surface. All cuts should be made normal to the pipe wall.

(4) The number of sections that must be assembled together to form a square test sample with sides measuring 3 inches, should be that which corresponds to the nearest integral number of sections which will result in a test sample with an equivalent linearized surface width between 3 and 3.5 inches. The surface width is defined as the measured sum of the outer circumference of the assembled pipe sections normal to the lengthwise sections.

(5) The test samples should be mounted on calcium silicate board and held in place by the edges of the test frame and, if necessary, by wire. There should be no gaps between individual sections and the samples should be constructed so that the edges of two adjacent sections coincide with the centerline of the test holder.

(6) The space between the concave unexposed surface of the test sample and the surface of the calcium silicate backing should be left void.

(7) The void space between the top of the exposed test surface and the bottom edge of the sample holder frame should be filled with a high temperature insulating wool where the pipe extends under the frame.

(8) When the pipes are to include fireproofing or coatings, the composite

structure consisting of the segmented pipe wall and fireproofing shall be tested and the thickness of the fireproofing should be the minimum thickness specified for the intended usage.

(9) Test samples should be oriented in the apparatus such that the pilot burner flame will be normal to the lengthwise piping sections.

(d) Where required to be approved, piping systems must comply with applicable American Society for Testing and Materials (ASTM) standards.

(e) All testing and inspections required by this subpart, except as allowed by paragraph (b) of this section, must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(f) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(g) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as plastic piping.

(h) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(i) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.141-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, which ASTM standards the pipe is manufactured to, the maximum allowable working pressure of the pipe, the maximum working temperature for the pipe, the desired piping sizes to be approved, the locations and applications for which approval is requested, all piping system joints and fittings to be approved, all adhesives to be approved; and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

231. Add subpart 164.142 to read as follows:

Subpart 164.142—Bedding Components

Sec.

164.142-1 Scope.

164.142-2 Incorporation by reference.

164.142-3 Testing, marking, and inspection requirements.

164.142-4 Approval procedures.

Subpart 164.142—Bedding Components

§ 164.142-1 Scope.

This subpart prescribes requirements for approval of bedding components as required by the International Convention for the Safety of Life at Sea (SOLAS).

§ 164.142-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) International Maritime Organization (IMO), Publications Section, 4 Albert

Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611,
www.imo.org/publications.

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.142-3(a).

(2) [Reserved]

§ 164.142-3 Testing, marking, and inspection requirements.

(a) Bedding components that are submitted for type approval must be tested for qualities of resistance to the ignition and propagation of flame of Annex 1, Part 9 of the FTP Code (incorporated by reference, see § 164.142-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as a bedding component.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.142-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

232. Add subpart 164.144 to read as follows:

Subpart 164.144—Upholstered Furniture

Sec.

164.144-1 Scope.

164.144-2 Incorporation by reference.

164.144-3 Testing, marking, and inspection requirements.

164.144-4 Approval procedures.

Subpart 164.144—Upholstered Furniture

§ 164.144-1 Scope.

This subpart prescribes requirements for approval of upholstered furniture as required by the International Convention for the Safety of Life at Sea (SOLAS).

§ 164.144-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG-ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, and is available from the sources listed below. It is also available for inspection 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:

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(b) International Maritime Organization (IMO), Publications Section, 4 Albert

Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611,
www.imo.org/publications.

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.144-3(a).

(2) [Reserved]

§ 164.144-3 Testing, marking, and inspection requirements.

(a) Upholstered furniture that is submitted for type approval must be tested for qualities of resistance to the ignition and propagation of flame of Annex 1, Part 8 of the FTP Code (incorporated by reference, see § 164.144-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as upholstered furniture.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.144-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

233. Add subpart 164.146 to read as follows:

Subpart 164.146—Fire Door Control System (SOLAS)

Sec.

164.146-1 Scope.

164.146-2 Incorporation by reference.

164.146-3 Testing, marking, and inspection requirements.

164.146-4 Approval procedures.

Subpart 164.146—Fire Door Control System (SOLAS)

§ 164.146-1 Scope.

This subpart prescribes requirements for approval of fire door control systems as required by the International Convention for the Safety of Life at Sea (SOLAS).

§ 164.146-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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:

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(b) International Maritime Organization (IMO), Publications Section, 4 Albert

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www.imo.org/publications.

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.146-3(a).

(2) [Reserved]

§ 164.146-3 Testing, marking, and inspection requirements.

(a) A fire door control system that is submitted for type approval must be tested in accordance with Annex 1, Part 4 of the FTP Code (incorporated by reference, see § 164.146-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as a fire door control system.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.146-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

234. Add subpart 164.201 to read as follows:

Subpart 164.201—Fire-resisting Materials for High-speed Craft

Sec.

164.201-1 Scope.

164.201-2 Incorporation by reference.

164.201-3 Testing, marking, and inspection requirements.

164.201-4 Approval procedures.

Subpart 164.201—Fire-resisting Materials for High-speed Craft

§ 164.201-1 Scope.

This subpart prescribes requirements for approval of fire-resisting materials for high-speed craft as required by the International Code of Safety for High Speed Craft (HSC Code).

§ 164.201-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

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

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.201-3.

(2) [Reserved]

§ 164.201-3 Testing, marking, and inspection requirements.

(a) Fire-resisting materials for high-speed craft that is submitted for type approval must be tested in accordance with Annex 1, Part 10 of the FTP Code (incorporated by reference, see § 164.201-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as a fire resisting material for high speed craft.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire-testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.201-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

235. Add subpart 164.207 to read as follows:

Subpart 164.207—Fire-resisting Divisions For High-speed Craft

Sec.

164.207-1 Scope.

164.207-2 Incorporation by reference.

164.207-3 Testing, marking, and inspection requirements.

164.207-4 Approval procedures.

Subpart 164.207—Fire-resisting Divisions For High-speed Craft

§ 164.207-1 Scope.

This subpart prescribes requirements for approval of fire-resisting divisions for high-speed craft as required by the International Code of Safety for High-Speed Craft (HSC Code).

§ 164.207-2 Incorporation by reference.

(a) Certain material is incorporated by reference into this subpart 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

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

(1) IMO Resolution MSC.307(88), Adoption of the International Code for Application of Fire Test Procedures, 2010 (“FTP Code”), IBR approved for § 164.207-3(a).

(2) [Reserved]

§ 164.207-3 Testing, marking, and inspection requirements.

(a) Fire-resisting divisions for high-speed craft that are submitted for type approval must be tested in accordance with Annex 1, Part 11 of the FTP Code (incorporated by reference, see § 164.207-2).

(b) All testing and inspections required by this subpart must be performed by an independent laboratory accepted by the Coast Guard under subpart 159.010 of this chapter. A list of independent laboratories accepted as meeting subpart 159.010 of this chapter is available online at <http://psix.uscg.mil/EQLabs/Default.aspx>.

(c) The independent laboratory must perform an initial factory inspection to select the test specimens and establish the materials of construction, chemical make-up, dimensions, tolerances, and other related factors needed to confirm product consistency during follow-up production inspections.

(d) Production inspections must be performed by the independent laboratory in accordance with subpart 159.007 of this chapter at least annually to confirm that no changes have been made to the product that may adversely affect its fire performance as a fire resisting division for high speed craft.

(e) The independent laboratory must prepare production inspection procedures and a report of the results of the fire-testing program, and must furnish the manufacturer with three copies of each upon completion of the required testing.

(f) Materials approved under this subpart must be shipped in packaging that is clearly marked with the name of the manufacturer, product designation, date of manufacture, batch or lot number, and Coast Guard type approval number.

§ 164.207-4 Approval procedures.

(a) Manufacturers that desire type approval should submit a written notice to the Commandant (CG-ENG-4) describing the product and its intended uses. The Commandant will evaluate this information and notify the manufacturer of the product's suitability for testing. The manufacturer should then contract directly with an accepted independent laboratory to perform the required tests and inspections.

(b) Upon completion of the required testing and inspections, the manufacturer must submit a written request for type approval to the Commandant (CG-ENG-4). The request must indicate the name and address of the manufacturer, all product designations, and the address of all manufacturing facilities. The request must include a copy of the final fire test report and the production inspection procedures. From the information submitted, the Commandant determines whether or not the product is acceptable for type approval. If the product is determined to be acceptable, a type approval certificate valid for a 5-year period will be issued. If the product is not accepted, the manufacturer will be notified of the reasons why.

Subpart 164.900 [Removed]

236. Remove subpart 164.900.

PART 167—PUBLIC NAUTICAL SCHOOL SHIPS

237. The authority citation for part 167 continues to read as follows:

Authority: 46 U.S.C. 3306, 3307, 6101, 8105; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

§ 167.01-5 [Amended]

238. Amend § 167.01-5(a) to add, after the words “nautical school ships.”, the sentence “The regulations in this subchapter have preemptive effect over State or local regulations in the same field.”.

239. Amend § 167.45-30 as follows:

- a. Redesignate introductory text as paragraph (a); and
- b. Add paragraph (b) to read as follows:

§ 167.45-30 Use of approved fire-fighting equipment.

* * * * *

(b) Use of non-approved fire detection systems may be acceptable as excess equipment provided that--

(1) Components are listed by an independent, nationally recognized testing laboratory as set forth in 29 CFR 1910.7, and are designed, installed, tested, and maintained in accordance with an appropriate industry standard and the manufacturer’s specific guidance;

(2) Installation conforms to the requirements of 46 CFR, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105;

(3) Coast Guard plan review is completed for wiring plans; and

(4) The system and units remain functional as intended. To ensure this, marine inspectors may test and inspect the system during routine inspections.

PART 169—SAILING SCHOOL VESSELS

240. The authority citation for part 169 continues to read as follows:

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 3306, 6101; Pub. L. 103–206, 107 Stat. 2439; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp., p. 793; Department of Homeland Security Delegation No. 0170.1; §169.117 also issued under the authority of 44 U.S.C. 3507.

241. Revise § 169.115 to read as follows:

§ 169.115 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue, SE, Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) American Boat and Yacht Council (ABYC), 613 Third St., Suite 10, Annapolis, MD 21403, 410-990-4460, <http://www.abycinc.org>.

(1) A-1-78, Marine LPG—Liquefied Petroleum Gas Systems, IBR approved for § 169.703.

(2) A-3-70, Recommended Practices and Standards Covering Galley Stoves, IBR approved for § 169.703(a).

(3) A-22-78, Marine CNG—Compressed Natural Gas Systems, IBR approved for § 169.703(c).

(4) H-2.5, Ventilation of Boats Using Gasoline—Design and Construction, 1981, IBR approved for § 169.629.

(5) P-1-73, Safe Installation of Exhaust Systems for Propulsion and Auxiliary Engines, 1973, IBR approved for § 169.609.

(c) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) ANSI/NFPA 70, National Electrical Code, 1980 Edition (“NFPA 70”), IBR approved for § 169.672(a).

(2) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition (“NFPA 10”), IBR approved for § 169.247(a).

(3) ANSI/NFPA 302, Fire Protection Standard for Pleasure and Commercial Motor Craft, Chapter 6, 1980 Edition (“NFPA 302”), IBR approved for § 169.703(c).

(4) NFPA 306, Standard for the Control of Gas Hazards on Vessels, 1980 Edition, (“NFPA 306”), IBR approved for § 169.236(a).

(d) Navy Publications and Forms Center, Customer Service Code 1052, 5801 Tabor Ave., Philadelphia, PA 19120.

(1) Federal Specification ZZ-H-451G, Hose, Fire, Woven-Jacketed Rubber or Fabric-Lined, with Couplings, IBR approved for § 169.563(c).

(2) [Reserved]

(e) Underwriters Laboratories, Inc. (UL), 333 Pfingsten Road Northbrook, IL 60062-2096, 919-549-1400, www.ul.com.

(1) UL 19–2001, Standard for Lined Fire Hose and Hose Assemblies (UL 19), IBR approved for § 169.563(c).

(2) [Reserved]

§ 169.236 [Amended]

242. In § 169.236(a), remove the words “, “Control of Gas Hazards on Vessels,”” and add, in their place, the words “(incorporated by reference, see § 169.115)”.

243. Revise § 169.247 to read as follows:

§ 169.247 Firefighting equipment.

(a) At each inspection for certification and periodic inspection and at such other times as considered necessary, all fire extinguishing equipment is inspected to ensure it is in suitable condition. Tests may be necessary to determine the condition of the equipment. The inspector must ensure that the following tests and inspections have been conducted by a qualified servicing facility at least once every 12 months:

(1) Portable fire extinguishers and semi-portable fire extinguishing systems must be inspected and maintained in accordance with NFPA 10 (incorporated by reference, see § 169.115) as amended here:

(i) Certification or licensing by the state or local jurisdiction as a fire extinguisher servicing agency will be accepted by the Coast Guard as meeting the personnel

certification requirements of NFPA 10 for annual maintenance and recharging of extinguishers.

(ii) Monthly inspections required by NFPA 10 may be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(iii) Non-rechargeable or non-refillable extinguishers must be inspected and maintained in accordance with NFPA 10; however, the annual maintenance need not be conducted by a certified person and can be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(iv) The owner or managing operator must provide satisfactory evidence of the required servicing to the marine inspector. If any of the equipment or records have not been properly maintained, a qualified servicing facility must perform the required inspections, maintenance procedures, and hydrostatic pressure tests. A tag issued by a qualified servicing organization, and attached to each extinguisher, may be accepted as evidence that the necessary maintenance procedures have been conducted.

(2) All parts of the fixed fire extinguishing systems are examined for excessive corrosion and general condition. Table 169.247(a)(1) of this section provides detailed inspection and test requirements of fixed systems.

(3) Piping, controls, valves, and alarms on all fire extinguishing systems are checked to be certain the system is in operating condition.

(4) The fire main system is operated and the pressure checked at the most remote and highest outlets.

(5) Each firehose is subjected to a test pressure equivalent to its maximum service pressure.

(b) [Reserved]

Table 169.247(a)(1)—Fixed Systems

Type of system	Test
Carbon dioxide or HALON 1301	Weigh cylinders. Recharge if weight loss exceeds 10 percent of weight of the charge.

§ 169.563 [Amended]

244. Amend § 169.563 paragraph(c), by adding “(incorporated by reference, see § 169.115)” after the words “Federal Specification ZZ-H-451G.”.

245. Amend § 169.567 as follows:

- a. Revise the section heading to read as follows;
- b. Revise paragraphs (a) and (b) to read as follows; and
- c. Remove paragraph (g).

§ 169.567 Portable fire extinguishers.

(a) The minimum number of portable fire extinguishers required on each vessel is determined by the Officer in Charge, Marine Inspection, in accordance with Table 169.567(a) of this section and other provisions of this subpart.

Table 169.567(a)—Required Portable Fire Extinguishers

Space	Portable fire extinguishers	
	Minimum required rating	Quantity and location
Propulsion machinery space without fixed extinguishing system.	40-B:C	2
Propulsion machinery	40-B:C	1 in the vicinity of the exit.

space with fixed extinguishing system.		
Living space and open boats.	2-A	1 per 1,000 cubic foot of space
Galley (without fixed system).	40-B:C	1 per 500 cubic foot
Spare Units.	2-A	(RANGE FROM 50-10) percent of the required number rounded up.
	40-B:C	1

(b) Table 169.567(a) of this section indicates the minimum required classification for each space listed. Extinguishers with larger numerical ratings or multiple letter designations may be used if the extinguishers meet the requirements of the table.

* * * * *

§ 169.609 [Amended]

246. In the introductory text of § 169.609, remove the word “systems” and add, in its place, the word “systems”, and after the words “Safe Installation of Exhaust Systems for Propulsion and Auxiliary Machinery”, add the words “(incorporated by reference, see § 169.115)”.

247. Revise § 169.629 to read as follows:

§ 169.629 Compartments containing gasoline machinery or fuel tanks.

Spaces containing gasoline machinery or fuel tanks must have natural supply and mechanical exhaust ventilation meeting the requirements of American Boat and Yacht Council Standard H-2.5, “Design and Construction; Ventilation of Boats Using Gasoline” (incorporated by reference, see § 169.115 of this part).

248. Amend § 169.672 to revise paragraph (a)(1) to read as follows:

§ 169.672 Wiring for power and lighting circuits.

(a) * * *

(1) Meet NFPA 70, National Electrical Code, Article 310–8 and Table 310–13 (incorporated by reference, see § 169.115);

* * * * *

249. Amend § 169.703 as follows:

a. Revise paragraph (a) to read as follows;

b. In paragraph (c)(1), after the words “Chapter 6 of NFPA 302”, add the words “(incorporated by reference, see § 169.115)”; and

c. In paragraph (c)(2), after the words “Chapter 6 of NFPA 302 or ABYC A-22”, add the words “(incorporated by reference, see § 169.115)”.

§ 169.703 Cooking and heating.

(a) Cooking and heating equipment must be suitable for marine use. Cooking installations must meet the requirements of ABYC Standard A–3, “Recommended Practices and Standards Covering Galley Stoves” (incorporated by reference, see § 169.115).

* * * * *

PART 175—GENERAL PROVISIONS

250. The authority citation for part 175 continues to read as follows:

Authority: 46 U.S.C. 2103, 3205, 3306, 3307, 3703; Pub. L 103–206, 107 Stat. 2439; 49 U.S.C. App. 1804; Department of Homeland Security Delegation No. 0170.1; 175.900 also issued under authority of 44 U.S.C. 3507.

§ 175.100 [Amended]

251. Amend § 175.100 to add, after the words “small passenger vessels.”, the sentence “The regulations in this subchapter have preemptive effect over State or local regulations in the same field.”.

252. Amend § 175.400 to add the definitions of “Ignition source”, “Isolated space”, and “Open to the atmosphere”, in alphabetical order, as follows:

§ 175.400 Definitions of terms used in the subchapter.

* * * * *

Ignition source means: 1) an internal combustion engine regardless of horsepower or 2) continuously running electrical motors without overload protection or other run-limiting devices. Properly installed electrical wire or cabling with associated connections and outlets must not be considered an ignition source.

* * * * *

Isolated space means a closed, water-tight space infrequently accessed by the crew while the vessel is in operation. Examples of these spaces are the fore-peak spaces, lazarettes, and spaces with unattended continuously running electrical motors. Small, non-water-tight compartments visible to the crew and passengers such as storage lockers under the operating station or passenger seating areas, are not considered isolated spaces.

* * * * *

Open to the atmosphere means a compartment that has at least 0.342 square meters of open area directly exposed to the atmosphere for each cubic meter (15 square inches for each cubic foot) of net compartment volume.

* * * * *

253. Revise § 175.600 to read as follows:

§ 175.600 Incorporation by reference.

(a) Certain material is incorporated by reference into this subchapter with the approval of the Director of the **Federal Register** in accordance with 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) American Boat and Yacht Council (ABYC), 613 Third St., Suite 10, Annapolis, MD 21403, 410-990-4460, <http://www.abycinc.org>.

(1) A–1–93, Marine Liquefied Petroleum Gas (LPG) Systems, IBR approved for § 184.240.

(2) A–3–93, Galley Stoves, IBR approved for § 184.200.

(3) A–7–70, Boat Heating Systems, IBR approved for § 184.200.

(4) A–16–89, Electric Navigation Lights, IBR approved for § 183.130.

(5) A–22–93, Marine Compressed Natural Gas (CNG) Systems, IBR approved for § 184.240.

(6) E-8, Alternating Current (AC) Electrical Systems on Boats, July 2001, IBR approved for §§ 183.130 and 183.340.

(7) E-9, Direct Current (DC) Electrical Systems on Boats (May 28, 1990), IBR approved for §§ 183.130 and 183.340.

(8) H-2-89, Ventilation of Boats Using Gasoline, IBR approved for §§ 183.130 and 182.460.

(9) H-22-86, DC Electric Bilge Pumps Operating Under 50 Volts, IBR approved for §§ 182.130 and 182.500.

(10) H-24-93, Gasoline Fuel Systems, IBR approved for §§ 182.130, 182.440, 182.445, 182.450, and 182.455.

(11) H-25-94, Portable Gasoline Fuel Systems for Flammable Liquids, IBR approved for §§ 182.130 and 182.458.

(12) H-32-87, Ventilation of Boats Using Diesel Fuel, IBR approved for §§ 182.130, 182.465, and 182.470.

(13) H-33-89, Diesel Fuel Systems, IBR approved for §§ 182.130, 182.440, 182.445, 182.450, and 182.455.

(14) P-1-93, Installation of Exhaust Systems for Propulsion and Auxiliary Engines, IBR approved for §§ 177.405, 177.410, 182.130, 182.425, and 182.430.

(15) P-4-89, Marine Inboard Engines, IBR approved for §§ 182.130 and 182.420.

(c) American Bureau of Shipping (ABS), ABS Plaza, 16855 Northchase Drive, Houston, TX 77060, 281-877-5800, <http://www.eagle.org>.

(1) Guide for High Speed Craft, 1997, IBR approved for § 177.300.

(2) Rules for Building and Classing Aluminum Vessels, 1975, IBR approved for § 177.300.

(3) Rules for Building and Classing Reinforced Plastic Vessels, 1978, IBR approved for § 177.300.

(4) Rules for Building and Classing Steel Vessels, 1995, IBR approved for § 183.360.

(5) Rules for Building and Classing Steel Vessels Under 61 Meters (200 feet) in Length, 1983, IBR approved for § 177.300.

(6) Rules for Building and Classing Steel Vessels for Service on Rivers and Intracoastal Waterways, 1995 (“ABS Steel Vessel Rules”), IBR approved for § 177.300.

(d) American National Standards Institute (ANSI), 25 West 43rd St., New York, NY 10036, 212-642-4900, <http://www.ansi.org>.

(1) A 17.1–1984, including supplements A 17.1a and B–1985, Safety Code for Elevators and Escalators, IBR approved for § 183.540.

(2) ANSI Z 26.1, Motor Vehicles Operating on Land Highways, IBR approved for § 177.1030.

(3) B 31.1–1986, Code for Pressure Piping, Power Piping, IBR approved for § 182.710.

(e) ASTM International (formerly American Society for Testing and Materials), 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, 610-832-9500, <http://www.astm.org>.

(1) ASTM B 96–93, Standard Specification for Copper–Silicon Alloy Plate, Sheet, Strip, and Rolled Bar for General Purposes and Pressure Vessels, IBR approved for § 182.440.

(2) ASTM B 117–97, Standard Practice for Operating Salt Spray (Fog) Apparatus, IBR approved for § 175.400.

(3) ASTM B 122/B 122M–95, Standard Specification for Copper-Nickel-Tin Alloy, Copper-Nickel-Zinc Alloy (Nickel Silver), and Copper-Nickel Alloy Plate, Sheet, Strip and Rolled Bar, IBR approved for § 182.440.

(4) ASTM B 127–98, Standard Specification for Nickel-Copper Alloy (UNS NO4400) Plate, Sheet, and Strip, IBR approved for § 182.440.

(5) ASTM B 152–97a, Standard Specification for Copper Sheet, Strip, Plate, and Rolled Bar, IBR approved for § 182.440.

(6) ASTM B 209–96, Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate, IBR approved for § 182.440.

(7) ASTM D 93–97, Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester, IBR approved for § 175.400.

(8) ASTM D 635–97, Standard test Method for Rate of Burning and or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position, IBR approved for § 182.440.

(9) ASTM D 2863–95, Standard Method for Measuring the Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics, IBR approved for § 182.440.

(10) ASTM E 84–98, Standard Test Method for Surface Burning Characteristics of Building Materials, IBR approved for § 177.410.

(f) Institute of Electrical and Electronics Engineers, Inc. (IEEE), IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854, 800-678-4333, <http://www.ieee.org>.

(1) Standard 45–1977, Recommended Practice for Electrical Installations on Shipboard, IBR approved for § 183.340.

(2) [Reserved]

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

(1) Code of Practice for the Evaluation, Testing and Acceptance of Prototype Novel Life-Saving Appliances and Arrangements-Resolution A.520(13), dated November 17, 1983, IBR approved for § 175.540.

(2) Use and Fitting of Retro-Reflective Materials on Life-Saving Appliances-Resolution A.658(16), dated November 20, 1989, IBR approved for § 185.604.

(3) Fire Test Procedures For Ignitability of Bedding Components, Resolution A.688(17), dated November 6, 1991, IBR approved for § 177.405.

(4) Symbols Related to Life-Saving Appliances and Arrangements, Resolution A.760(18), dated November 17, 1993, IBR approved for § 185.604.

(h) International Organization for Standardization (ISO), Case postale 56, CH–1211 Geneva 20, Switzerland, +41 22 749 01 11, <http://www.iso.org>.

(1) ISO 8846, Small Craft-Electrical Devices-Protection Against Ignition of Surrounding Flammable Gases, IBR approved for § 182.500.

(2) ISO 8849, Small Craft-Electrically Operated Bilge Pumps, IBR approved for § 182.500.

(i) Lloyd's Register of Shipping, 71 Fenchurch Street, London EC3M 4BS, +44 (0)20 7709 9166, <http://www.lr.org>.

(1) Rules and Regulations for the Classification of Yachts and Small Craft, as amended through 1983, IBR approved for § 177.300.

(2) [Reserved]

(j) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition (“NFPA 10”), IBR approved for § 176.810(b).

(2) ANSI/NFPA 17, Standard for Dry Chemical Extinguishing Systems, 1994 Edition (“NFPA 17”), IBR approved for § 181.425.

(3) ANSI/NFPA 17A, Standard for Wet Chemical Extinguishing Systems, 1994 Edition, (“NFPA 17A”), IBR approved for § 181.425.

(4) ANSI/NFPA 70, National Electrical Code (NEC), 1996 Edition (“NFPA 70”), IBR approved for §§ 183.320, 183.340, and 183.372.

(5) ANSI/NFPA 302, Fire Protection Standard for Pleasure and Commercial Motor Craft, 1994 Edition (“NFPA 302”), IBR approved for §§ 184.200 and 184.240.

(6) NFPA 306, Standard for the Control of Gas Hazards on Vessels, 1993 Edition (“NFPA 306”), IBR approved for § 176.710.

(7) NFPA 1963, Standard for Fire Hose Connections, 1989 Edition, (“NFPA 1963”), IBR approved for § 181.320.

(k) DLA Document Services, Department of Defense, Single Stock Point, 700 Robbins Avenue, Philadelphia, PA 19111, 215-697-6396, <http://www.assistdocs.com>.

(1) Military Specification MIL-P-21929C (1991), Plastic Material, Cellular Polyurethane, Foam-in-Place, Rigid (2 and 4 pounds per cubic foot), IBR approved for § 179.240.

(2) Military Specification MIL-R-21607E(SH) (1990), Resins, Polyester, Low Pressure Laminating, Fire Retardant, IBR approved for § 177.410.

(l) Society of Automotive Engineers (SAE), 400 Commonwealth Drive, Warrendale, PA 15096-0001, 724-776-4841, <http://www.sae.org>.

(1) SAE J-1475, Hydraulic Hose Fittings For Marine Applications, 1984, IBR approved for § 182.720(e).

(2) SAE J-1928, Devices Providing Backfire Flame Control for Gasoline Engines in Marine Applications, August 1989, IBR approved for § 182.415.

(3) SAE J-1942, Hose and Hose Assemblies for Marine Applications, 1992, IBR approved for § 182.720(e).

(m) Underwriters Laboratories Inc. (UL), 333 Pfingsten Road Northbrook, IL 60062-2096, 919-549-1400, www.ul.com.

(1) UL 19-2001, Standard for Lined Fire Hose and Hose Assemblies (UL 19), § 181.320.

(2) UL 174-1989, as amended through June 23, 1994, Household Electric Storage Tank Heaters, IBR approved for § 182.320.

(3) UL 217-2006, Single and Multiple Station Smoke Detectors, IBR approved for § 181.450.

(4) UL 486A–1992, Wire Connectors and Soldering Lugs For Use With Copper Conductors, IBR approved for § 183.340.

(5) UL 489–1995, Molded-Case Circuit Breakers and Circuit Breaker Enclosures, IBR approved for § 183.380.

(6) UL 595–1991, Marine Type Electric Lighting Fixtures, IBR approved for § 183.410.

(7) UL 710–1990, as amended through September 16, 1993, Exhaust Hoods For Commercial Cooking Equipment, IBR approved for § 181.425.

(8) UL 1058–1989, as amended through April 19, 1994, Halogenated Agent Extinguishing System Units, IBR approved for § 181.410.

(9) UL 1102–1992, Non integral Marine Fuel Tanks, IBR approved for § 182.440.

(10) UL 1110–1988, as amended through May 16, 1994, Marine Combustible Gas Indicators, IBR approved for § 182.480.

(11) UL 1111–1988, Marine Carburetor Flame Arresters, IBR approved for § 182.415.

(12) UL 1113, Electrically Operated Pumps for Nonflammable Liquids, Marine, Third Edition (Sep. 4, 1997), IBR approved for § 182.520.

(13) UL 1453–1988, as amended through June 7, 1994, Electric Booster and Commercial Storage Tank Water Heaters, IBR approved for § 182.320.

(14) UL 1570–1995, Fluorescent Lighting Fixtures, IBR approved for § 183.410.

(15) UL 1571–1995, Incandescent Lighting Fixtures, IBR approved for § 183.410.

(16) UL 1572–1995, High Intensity Discharge Lighting Fixtures, IBR approved for § 183.410.

(17) UL 1573–1995, Stage and Studio Lighting Units, IBR approved for § 183.410.

(18) UL 1574–1995, Track Lighting Systems, IBR approved for § 183.410.

PART 176—INSPECTION AND CERTIFICATION

254. The authority citation for part 176 continues to read as follows:

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 2103, 3205, 3306, 3307; 49 U.S.C. App. 1804; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp., p. 743; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

255. Revise § 176.810 to read as follows:

§ 176.810 Fire protection.

(a) At each initial and subsequent inspection for certification, the owner or managing operator must be prepared to conduct tests and have the vessel ready for inspection of its fire protection equipment, including the following:

(1) Inspection of each portable fire extinguisher, semi-portable fire extinguisher, and fixed gas fire extinguishing system to check for excessive corrosion and general condition.

(2) Inspection of piping, controls, and valves, and the inspection and testing of alarms and ventilation shutdowns, for each fixed gas fire extinguishing system and detecting system to determine that the system is in operating condition.

(3) Operation of the fire main system and checking of the pressure at the most remote and highest outlets.

(4) Testing of each firehose to a test pressure equivalent to its maximum service pressure.

(5) Checking of each cylinder containing compressed gas to ensure it has been tested and marked in accordance with 46 CFR 147.60.

(6) Testing or renewal of flexible connections and discharge hoses on semi-portable extinguishers and fixed gas extinguishing systems in accordance with 46 CFR 147.65.

(7) Inspection and testing of all smoke- and fire detection systems, including sensors and alarms.

(b) The owner, managing operator, or a qualified servicing facility as applicable must conduct the following inspections and tests:

(1) Portable and semi-portable extinguishers must be inspected and maintained in accordance with NFPA 10 (incorporated by reference, see § 175.600) as amended here:

(i) Certification or licensing by the state or local jurisdiction as a fire extinguisher servicing agency will be accepted by the Coast Guard as meeting the personnel certification requirements of NFPA 10 for annual maintenance and recharging of extinguishers.

(ii) Monthly inspections required by NFPA 10 may be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(iii) Non-rechargeable or non-refillable extinguishers must be inspected and maintained in accordance with NFPA 10; however, the annual maintenance need not be conducted by a certified person and can be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(iv) The owner or managing operator must provide satisfactory evidence of the required servicing to the marine inspector. If any of the equipment or records have not been properly maintained, a qualified servicing facility must perform the required inspections, maintenance procedures, and hydrostatic pressure tests. A tag issued by a qualified servicing organization, and attached to each extinguisher, may be accepted as evidence that the necessary maintenance procedures have been conducted.

(2) For fixed-gas fire extinguishing systems, the inspections and tests required by Table 176.810(b) of this section, in addition to the tests required by 46 CFR 147.60 and 147.65. The owner or managing operator must provide satisfactory evidence of the required servicing to the marine inspector. If any of the equipment or records have not been properly maintained, a qualified servicing facility may be required to perform the required inspections, maintenance procedures, and hydrostatic pressure tests.

Table 176.810(b)—Fixed Fire Extinguishing Systems

Type System	Test
Carbon dioxide	Weigh cylinders. Recharge if weight loss exceeds 10 percent of weight of charge. Test time delays, alarms, and ventilation shutdowns with carbon dioxide, nitrogen, or other nonflammable gas as stated in the system manufacturer's instruction manual. Inspect hoses and nozzles to be sure they are clean.
Halon	Weigh cylinders. Recharge if weight loss exceeds 5 percent of weight of charge. If the system has a pressure gauge, also recharge if pressure loss (adjusted for temperature) exceeds 10 percent. Test time delays, alarms and ventilation shutdowns with carbon dioxide, nitrogen, or other nonflammable gas as stated in the system manufacturer's instruction manual. Inspect hoses and nozzles to be sure they are clean.
Dry Chemical (cartridge operated)	Examine pressure cartridge and replace if end is punctured or if determined to have leaked or to be in unsuitable condition. Inspect hose and nozzle to see if they are clear. Insert charged cartridge. Ensure extinguisher contains full charge.

Dry Chemical (stored pressure)	See that pressure gauge is in operating range. If not, or if the seal is broken, weigh or otherwise determined that extinguisher is fully charged with dry chemical. Recharge if pressure is low or if dry chemical is needed.
Foam (stored pressure)	See that pressure gauge, if so equipped, is in the operating range. If not, or if the seal is broken, weigh or otherwise determine that extinguisher is fully charged with foam. Recharge if pressure is low or if foam is needed. Replace premixed agent every 3 years.
Clean Agents (Halon replacements)	Same as Halon.

(c) The owner, managing operator, or master must destroy, in the presence of the marine inspector, each firehose found to be defective and incapable of repair.

(d) At each initial and subsequent inspection for certification, the marine inspector may require that a fire drill be held under simulated emergency conditions to be specified by the inspector.

PART 177—CONSTRUCTION AND ARRANGEMENT

256. The authority citation for part 177 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.

257. Amend § 177.410 to revise paragraph (c)(3) to read as follows:

§ 177.410 Structural fire protection.

* * * * *

(c) * * *

(3) Fire detection and extinguishing systems.

(i) Fire detection and extinguishing systems must be installed in compliance with §§ 181.400 through 181.420 of this subchapter.

(ii) All fiber reinforced plastic (FRP) vessels constructed with general purpose resins must be fitted with a smoke activated fire detection system of an approved type, installed in accordance with § 76.27 in subchapter H of this chapter, in--

(A) Accommodation spaces;

(B) Service spaces; and

(C) Isolated spaces that contain an ignition source as defined in § 175.400 of this section.

* * * * *

258. Add § 177.420 to read as follows:

§ 177.420 Vessels complying with SOLAS structural fire protection requirements.

Vessels meeting the structural fire protection requirements of SOLAS, Chapter II-2, Regulations 5, 6, 8, 9, and 11, may be considered equivalent to the provisions of this subpart.

PART 181—FIRE PROTECTION EQUIPMENT

259. The authority citation for part 181 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.

260. Revise § 181.120 to read as follows:

§ 181.120 Equipment installed but not required.

(a) Fire extinguishing equipment installed on a vessel in excess of the requirements of §§ 181.400 and 181.500 of this part must be designed, constructed, installed, and maintained in accordance with a recognized industry standard acceptable to the Commandant (CG-ENG-4).

(b) Use of non-approved fire detection systems may be acceptable as excess equipment provided that--

(1) Components are listed by an independent, nationally recognized testing laboratory as set forth in 29 CFR 1910.7, and are designed, installed, tested, and maintained in accordance with an appropriate industry standard and the manufacturer's specific guidance;

(2) Installation conforms to the requirements of 46 CFR, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105;

(3) Coast Guard plan review is completed for wiring plans; and

(4) The system and units remain functional as intended. To ensure this, marine inspectors may test and inspect the system during routine inspections.

261. Amend § 181.310 as follows:

a. In paragraphs (a) and (c), remove the words "fire hose" wherever they appear and add, in their place, the word "firehose".

b. Add paragraph (d) to read as follows:

§ 181.310 Fire main and hydrants.

* * * * *

(d) On vessels constructed after [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE], where a 40 millimeter (1.5 inch) diameter firehose is required by § 181.320(b) of this part, a spanner wrench suitable for use on the hose at that station must be provided.

Subpart D—Fixed Fire-Extinguishing and Detection Systems

262. Revise the heading for subpart D to read as set forth above.

263. Amend § 181.400 as follows:

a. Revise the section heading;

b. In paragraph (b)(3), remove the text “B-II” and add, in its place, the text “40-B”;

c. In paragraph (b)(5), remove the word “semiportable” and add, in its place, the word “semi-portable”;

d. In paragraphs (b)(5)(i), (b)(5)(ii), and (b)(5)(iii), remove the word “shall” and add, in its place, the word “must”; and

e. Remove paragraphs (c) through (g).

§ 181.400 Spaces required to have fixed fire extinguishing systems.

* * * * *

264. Add § 181.405 to read as follows:

§ 181.405 Spaces required to have fire detection systems.

(a) The following spaces must be equipped with a fire detection and alarm system of an approved type installed in accordance with 46 CFR, part 76 in subchapter H of this chapter, except when a fixed-gas fire extinguishing system that is capable of automatic discharge upon heat detection is installed or when the space is manned:

(1) A space containing propulsion machinery.

(2) A space containing an internal combustion engine of more than 50 hp.

(3) A space containing an oil-fired boiler.

(4) A space containing machinery powered by gasoline or any other fuels having a flash point of 43.3° C (110° F) or lower.

(5) A space containing a fuel tank for gasoline or any other fuel having a flash point of 43.3° C (110° F) or lower.

(b) All griddles, broilers, and deep fat fryers must be fitted with a grease extraction hood in compliance with § 181.425 of this subpart.

(c) Each overnight accommodation space on a vessel with overnight accommodations for passengers must be fitted with an independent modular smoke detection and alarm unit in compliance with § 181.450 of this subpart.

(d) An enclosed vehicle space must be fitted with an automatic sprinkler system that meets the requirements of 46 CFR, part 76 in subchapter H of this chapter and a fire detection and alarm system of an approved type that is installed in accordance with 46 CFR, part 76 in subchapter H of this chapter.

(e) A partially enclosed vehicle space must be fitted with a manual sprinkler system that meets the requirements of 46 CFR, part 76 in subchapter H of this chapter.

§ 181.410 [Amended]

265. Amend § 181.410 as follows:

a. In paragraph (f)(5)(i), after the words “must be equal to the gross volume of the system”, add the words “in cubic meters”, remove the number “160” and add, in its place, the number “.624”, and remove the number “192” and add, in its place, the number “.749”; and

b. In paragraph (f)(6)(i), remove the number “480” and add, in its place, the number “1.88”.

266. Revise § 181.500 to read as follows:

§ 181.500 Required number, type, and location.

(a) Each portable fire extinguisher on a vessel must be of an approved type. The minimum number of portable fire extinguishers required on a vessel must be acceptable to the cognizant Officer in Charge, Marine Inspection, but must not be fewer than the minimum number required by Table 181.500(b) and other provisions of this section.

(b) Table 181.500(b) of this section indicates the minimum required classification for each space listed. Extinguishers with larger numerical ratings or multiple letter designations may be used if the extinguishers meet the requirements of the table.

Table 181.500(b)—Required Portable Fire Extinguishers

Space	Portable fire extinguishers	
	Minimum Required Rating	Quantity and location
Operating Station	10-B:C	1
Machinery Space	40-B:C	1 in the vicinity of the exit.
Open Vehicle Deck	40-B	1 for every 10 vehicles.
Accommodation Space	2-A	1 each for each 2,500 square feet or fraction thereof.
Galley	40-B:C	1
Pantry, concession stand	2-A	1 in the vicinity of the exit.

(c) A vehicle deck without a fixed sprinkler system and exposed to weather must have one 40-B portable fire extinguisher for every five vehicles, located near an entrance to the space.

(d) The frame or support of each semi-portable fire extinguisher permitted by paragraph (a) of this section must be welded or otherwise permanently attached to a bulkhead or deck.

PART 182—MACHINERY INSTALLATION

267. The authority citation for part 182 continues to read as follows:

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

268. Revise § 182.720(a) to read as follows:

§ 182.720 Nonmetallic piping materials.

(a) Rigid nonmetallic materials (plastic) may be used only in non-vital systems and in accordance with paragraphs (c) and (d) of this section. Alternatively, piping systems meeting the requirements of § 56.60-25(a) of this part may be used, provided that the installation requirements of paragraphs (c) and (d) of this section are met.

* * * * *

PART 185--OPERATIONS

269. The authority citation for part 185 continues to read as follows:

Authority: 46 U.S.C. 2103, 3306, 6101; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

270. Amend § 185.612 as follows:

- a. Revise the section heading ;
- b. In paragraph (d), remove the word “alarm” and add, in its place, the word “indicator”;
- c. Revise paragraph (e) to read as follows; and
- d. In paragraph (f), after the words “or as otherwise required by the”, remove the word “cognizant”, and remove the word “shall” and add, in its place, the word “must”.

§ 185.612 Fire protection equipment.

* * * * *

(e) An indicator for a fire detection and alarm system must be conspicuously marked in clearly legible letters “FIRE ALARM”.

* * * * *

PART 188—GENERAL PROVISIONS

271. The authority citation for part 188 continues to read as follows:

Authority: 46 U.S.C. 2113, 3306; Pub. L 103–206, 107 Stat. 2439; 49 U.S.C. 5103, 5106; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

§ 188.01-3 [Amended]

272. Amend § 188.01-3 to add, after the words “dangerous articles or substances.”, the sentence “The regulations in this subchapter (parts 188, 189, 190, and 193 through 196) have preemptive effect over State or local regulations in the same field.”.

273. Add § 188.01-5 to read as follows:

§ 188.01-5 Incorporation by reference.

(a) Certain material is incorporated by reference into this subchapter 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below. It is also available for inspection 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

(b) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, (“NFPA 10”), IBR approved for § 189.25-20(a).

(2) [Reserved]

PART 189—INSPECTION AND CERTIFICATION

274. The authority citation for part 189 continues to read as follows:

Authority: 33 U.S.C. 1321(j); 46 U.S.C. 2113, 3306, 3307; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; E.O. 12777, 56 FR 54757, 3 CFR, 1991 Comp., p. 351; Department of Homeland Security Delegation No. 0170.1.

275. Amend § 189.25-20 as follows:

a. Remove the word “shall” wherever it appears and add, in its place, the word “must”;

b. In paragraph (a) introductory text, remove the third sentence; and

c. Revise paragraph (a)(1) to read as follows:

§ 189.25-20 Fire extinguishing equipment.

(a) * * *

(1) All portable fire extinguishers and semi-portable fire extinguishing systems must be inspected and maintained in accordance with NFPA 10 (incorporated by reference, see § 188.01-5) as amended here:

(i) Certification or licensing by the state or local jurisdiction as a fire extinguisher servicing agency will be accepted by the Coast Guard as meeting the personnel certification requirements of NFPA 10 for annual maintenance and recharging of extinguishers.

(ii) Monthly inspections required by NFPA 10 may be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(iii) Non-rechargeable or non-refillable extinguishers must be inspected and maintained in accordance with NFPA 10; however, the annual maintenance need not be conducted by a certified person and can be conducted by the owner, operator, person-in-charge, or a designated member of the crew.

(iv) The owner or managing operator must provide satisfactory evidence of the required servicing to the marine inspector. If any of the equipment or records have not been properly maintained, a qualified servicing facility must perform the required inspections, maintenance procedures, and hydrostatic pressure tests. A tag issued by a qualified servicing organization, and attached to each extinguisher, may be accepted as evidence that the necessary maintenance procedures have been conducted.

PART 190—CONSTRUCTION AND ARRANGEMENT

276. The authority citation for part 190 continues to read as follows:

Authority: 46 U.S.C. 2113, 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

277. Amend § 190.07-1 as follows:

a. Remove the word “shall” wherever it appears and add, in its place, the word “must”;

b. In paragraphs (a) and (b), remove the words “and over” and add, in their place, the words “or more”;

c. In paragraph (c), after the words “meet the requirements of § 190.07-90”, add the words “of this subpart”; and

d. Add paragraph (e) to read as follows:

§ 190.07-1 Application.

* * * * *

(e) Vessels meeting the structural fire protection requirements of SOLAS, Chapter II-2, Regulations 5, 6, 8, 9, and 11, may be considered equivalent to the provisions of this subpart.

PART 193—FIRE PROTECTION EQUIPMENT

278. The authority citation for part 193 continues to read as follows:

Authority: 46 U.S.C. 2213, 3102, 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277; Department of Homeland Security Delegation No. 0170.1.

279. Revise § 193.01-3 to read as follows:

§ 193.01-3 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 the U.S. Coast Guard, Office of Design and Engineering Standards (CG–ENG), 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, and is available from the sources listed below.

It is also available for inspection 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

(b) ASTM International (formerly American Society for Testing and Materials), 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959, 610-832-9585, *<http://www.astm.org>*.

(1) ASTM F 1121–87, Standard Specification for International Shore Connections for Marine Fire Applications, 1993, IBR approved for § 193.10–10.

(2) [Reserved]

(c) National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, 617-770-3000, *<http://www.nfpa.org>*.

(1) NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition (“NFPA 13”), IBR for § 193.30–1.

(2) [Reserved]

280. Amend § 193.01-5 as follows:

a. In paragraph (a), after the words “vessels of less than 300 gross tons, where”, remove the words “fire detecting or”, and remove the word “shall” and add, in its place, the word “must”; and

b. Add paragraph (b) to read as follows:

§ 193.01-5 Equipment installed but not required.

* * * * *

(b) Use of non-approved fire detection systems may be acceptable as excess equipment provided that--

(1) Components are listed by an independent, nationally recognized testing laboratory as set forth in 29 CFR 1910.7, and are designed, installed, tested, and maintained in accordance with an appropriate industry standard and the manufacturer's specific guidance;

(2) Installation conforms to the requirements of 46 CFR, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105;

(3) Coast Guard plan review is completed for wiring plans; and

(4) The system and units remain functional as intended. To ensure this, marine inspectors may test and inspect the system during routine inspections.

281. Amend § 193.10-5 as follows:

a. Revise paragraph (a) to read as follows;

b. In paragraph (b), after the words "On vessels of 1,000 gross tons", remove the words "and over" and add, in their place, the words "or more", and remove the word "shall" in the first sentence and add, in its place, the word "must";

c. In paragraphs (d), (e), and (g), remove the word "shall" and add, in its place, the word "must";

d. In paragraph (f), remove the word "shall" in the second sentence and add, in its place, the word "may", and remove the word "shall" in the third sentence and add, in its place, the word "must";

e. Revise paragraph (h) to read as follows;

f. In paragraph (i) introductory text, after the words “Except as provided for in § 193.10-10(e)”, add the words “of this subpart”; and

g. In paragraph (i)(1)(ii), remove the section number “§ 193.10-5(i)(1)(i)” and add, in its place, the section number “§ 193.10-5(i)(1)(i)(B)”.

§ 193.10-5 Fire pumps.

(a) Vessels must be equipped with independently driven fire pumps in accordance with Table 193.10–5(a) of this section.

Table 193.10–5(a)—Required Fire Pump System

Gross tons		Minimum number of pumps	Hose and hydrant size, inches	Nozzle orifice size, inches	Length of hose, feet
Over	Not over				
	100	¹ 1	¹ 1 1/2	¹ 1/2	50
100	1,000	1	1 1/2	5/8	50
1,000	1,500	2	1 1/2	5/8	50
1,500		2	² 2 1/2	² 7/8	² 50

¹On vessels of 65 feet in length or less, 3/4-inch hose of good commercial grade together with a commercial garden hose nozzle may be used. The pump may be hand operated and the length of hose must be sufficient to assure coverage of all parts of the vessel.

²75 feet of 1 1/2-inch hose and 5/8-inch nozzle may be used where specified by § 193.10–10(b) of this subpart for interior locations and 50 feet 1 1/2-inch hose may be used in exterior locations on vessels in other than ocean or coastwise services. Vessels on ocean or coastwise services may substitute two 1 1/2-inch outlets with two 1 1/2-inch hoses supplied through a wye connection in exterior locations.

* * * * *

(h) Where two fire pumps are required on vessels with main or auxiliary oil-fired boilers or with internal combustion propulsion machinery, the pumps must be located in separate spaces. The pumps, sea connections, and sources of power must be arranged to insure that a fire in any one space will not put all of the fire pumps out of operation.

However, where it is shown to the satisfaction of the Commandant that it is unreasonable or impracticable to meet this requirement, the installation of a fixed fire extinguishing system may be accepted as an alternate method of extinguishing any fire that would affect the powering and operation for the required fire pumps.

* * * * *

282. Amend § 193.10-10 as follows:

- a. Remove the word “shall” wherever it appears and add, in its place, the word “must”;
- b. In paragraph (a), after the words “as noted in Table 193.10-5(a)”, add the words “of this subpart”;
- c. Revise paragraph (b) to read as follows;
- d. In paragraph (c), remove the words “and over” wherever they appear and add, in their place, the words “or more”;
- e. In paragraph (g), after the words “with nozzle attached and a spanner”, add the word “wrench”;
- f. In paragraph (h), remove the words “Fire hose” and add, in their place, the word “Firehose”;
- g. In paragraph (j)(1), after the words “and in the immediate vicinity of each laboratory;”, add the word “and”;
- h. In paragraph (j)(2), remove the number “1000” and add, in its place, the number “1,000”; and

i. In paragraph (m)(3), after the words “is permitted by Table 193.10-5(a)”, add the words “of this subpart”, and in paragraph (m)(4), remove the words “fire hose” wherever they appear and add, in their place, the word “firehose”.

§ 193.10-10 Fire hydrants and hose.

* * * * *

(b) In lieu of the 2 1/2-inch hose and hydrants specified in Table 193.10-5(a) of this subpart, on vessels of more than 1,500 gross tons, the hydrants in interior locations may have wye connections for 1 1/2-inch hose. In these cases, the hose must be 75 feet in length, and only one hose will be required at each fire station; however, if all such stations can be satisfactorily served with 50-foot lengths, 50-foot hose may be used. The hydrants for exterior locations may substitute two 1 1/2-inch outlets, each with a 1 1/2-inch hose, supplied through a wye connection.

* * * * *

283. Revise § 193.30-1 to read as follows:

§ 193.30-1 Application

Automatic sprinkling systems must comply with Chapter 25 of NFPA 13 (incorporated by reference, see § 193.01-3).

§ 193.50-1 [Amended]

284. Amend § 193.50-1 as follows:

a. Remove the word “shall” wherever it appears and add, in its place, the word “must”; and

b. In paragraph (c), remove the word “semiportable” and add, in its place, the word “semi-portable”.

§ 193.50-5 [Removed]

285. Remove § 193.50-5.

286. Revise § 193.50-10 to read as follows:

§ 193.50-10 Location.

(a) Approved portable fire extinguishers and semi-portable fire extinguishing systems must be installed in accordance with Table 193.50–10(a) of this section. The location of the equipment must be to the satisfaction of the Officer in Charge, Marine Inspection (OCMI). Nothing in this paragraph must be construed as limiting the OCMI from requiring such additional equipment as he or she deems necessary for the proper protection of the vessel.

(b) Table 193.50-10(a) indicates the minimum required classification for each space listed. Extinguishers with larger numerical ratings or multiple letter designations may be used if the extinguishers meet the requirements of the table.

(c) Semi-portable fire extinguishing systems must be located in the open so as to be readily seen.

(d) If portable fire extinguishers are not located in the open or behind glass so that they may be readily seen, they may be placed in enclosures together with the firehose, provided such enclosures are marked as required by § 196.37–15 of this subchapter.

Table 193.50–10(a)—Carriage of Portable Fire Extinguisher and Semi-portable Fire-Extinguishing Systems

Space	Minimum required	Quantity and location
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	rating	
<i>Safety Areas</i>		
Wheelhouse or fire control room.		None.
Stairway and elevator enclosures.		None.
Communicating corridors.	2-A	1 in each main corridor not more than 150 ft apart. (May be located in stairways.)
Lifeboat embarkation and lowering stations.		None.
Radio room.	20-B:C ¹	2 in the vicinity of the exit. ¹
<i>Accommodations</i>		
Staterooms, toilet spaces, public spaces, offices, lockers, isolated storerooms, pantries, open decks, etc.		None.
<i>Service spaces</i>		
Galleys.	40-B:C	1 for each 2,500 sq ft or fraction thereof .
<i>Machinery spaces</i>		
Paint and lamp rooms.	40-B	1 outside space in the vicinity of the exit.
Accessible baggage, mail, and specie rooms, and storerooms.	2-A	1 for each 2,500 sq ft or fraction thereof located in the vicinity of the exits, either inside or outside the spaces.
Carpenter shop and similar spaces.	2-A	1 outside the space in the vicinity of the exit.
Coal-fired boilers: Bunker and boiler space.		None.
Oil-fired boilers: Spaces containing oil-fired boilers, either main or auxiliary, or their fuel-oil units.	40-B	2 required. ²
	160-B	1 required. ³
Internal combustion or gas turbine propelling machinery spaces.	40-B	1 for each 1,000 brake horsepower, but not fewer than 2 nor more than

		6. ⁴
	120-B	1 required. ^{5,6}
Electric propulsive motors or generators of open type.	40-B:C	1 for each propulsion motor or generator unit.
Enclosed ventilating systems for motors and generators of electric propelling machinery.		None.
Auxiliary spaces:		
Internal combustion gas turbine.	40-B	1 outside the space in vicinity of the exit. ⁶
Electric emergency motors or generators.	40-B:C	1 outside the space in vicinity of the exit. ⁷
Steam.		None required.
Trunks to machinery spaces.		None required
Fuel tanks.		None required
<i>Scientific spaces</i>		
Chemistry laboratory or scientific laboratory.	40-B:C	2 for each 300 sq ft of deck space or fraction thereof, with one (1) of each kind located in the vicinity of the exit.
Chemical storeroom	40-B:C	Same as for the chemistry laboratory.
Spare Units		
	2-A	10 percent of required units rounded up.
	40-B:C	10 percent of required units rounded up.

¹For vessels on an international voyage, substitute one 40-B:C in vicinity of the exit.

²Vessels of fewer than 1,000 GT require one.

³Vessels of fewer than 1,000 GT may substitute one 120-B.

⁴Only one required for motorboats.

⁵If oil burning donkey boiler fitted in space, the 160-B previously required for the protection of the boiler may be substituted. Not required where a fixed carbon dioxide system is installed.

⁶Not required on vessels of fewer than 300 GT if fuel has a flash-point higher than 110° F.

⁷Not required on vessels of fewer than 300 GT.

(e) Portable fire extinguishers and their stations must be numbered in accordance with § 196.37–15 of this subchapter.

(f) Portable or semi-portable extinguishers, which are required on their nameplates to be protected from freezing, must not be located where freezing temperatures may be expected.

§ 193.50-15 [Removed]

287. Remove § 193.50-15.

288. Amend § 193.50-20 as follows:

a. Revise the section heading to read as follows;

b. In paragraph (a), remove the words “size III, IV, and V” and add, in their place, the word “semi-portable”, and after the words “required by Table 193.50-10(a)”, add the words “of this subpart”;

c. In paragraph (b), remove the words “size III, IV, or V” and add, in their place, the word “semi-portable”, and after the words “required by Table 193.50-10(a)”, add the words “of this subpart”; and

d. Add new paragraph (c) to read as follows:

§ 193.50-20 Semi-portable fire extinguishers.

* * * * *

(c) Semi-portable extinguishers must be fitted with suitable hose and nozzle, or other practicable means, so that all areas of the space can be protected.

289. Add § 193.50-80 to read as follows:

§ 193.50-80 Locations and number of fire extinguishers required for vessels constructed prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE].

Vessels contracted for prior to [30 DAYS AFTER DATE OF PUBLICATION OF FINAL RULE], must meet the following requirements:

(a) Previously installed extinguishers with extinguishing capacities smaller than what is required in Table 193.50–10(a) of this subpart need not be replaced and may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

(b) All new equipment and installations must meet the applicable requirements in this subpart for new vessels.

§ 193.50-90 [Amended]

290. Amend § 193.50-90 as follows:

a. Remove the word “shall” wherever it appears and add, in its place, the word “must”;

b. In paragraph (a)(1), remove the words “§§ 193.50-5 through 193.50-15”, and add, in its place, the words “§ 193.50-10 of this subpart,”;

c. In paragraph (a)(2), remove the words “of §§ 193.50-5 through 193.50-15”, and add, in its place, the words “§ 193.50-10 of this subpart”, and after the text “Table 193.50-10(a)” wherever it appears, add the words “of this subpart”; and

d. Add and reserve paragraph (b).

Dated: December 11, 2013

J. G. LANTZ
Director of Commercial Regulations and Standards
U. S. Coast Guard

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