

## 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, 115, 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:** Final rule.

**SUMMARY:** The Coast Guard is issuing a final rule for certain design and approval standards for fire protection, detection, extinguishing equipment, and materials on inspected and uninspected vessels, outer continental shelf facilities, deepwater ports, and mobile offshore drilling units. This rule harmonizes Coast Guard approval processes for fire detection and alarm systems, and revises Coast Guard regulations for other types of equipment, materials, and components, such as spanner wrenches, non-metallic pipes, and sprinkler systems. This rule ensures Coast Guard regulations remain current and addresses advances in technology.

**DATES:** This final rule is effective August 22, 2016. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register on August 22, 2016.

**ADDRESSES:** Comments and material received from the public, as well as documents mentioned in this preamble as being available in the docket, are part of docket USCG–2012–0196. You may find this docket on the Internet by going to <http://www.regulations.gov>, inserting USCG–2012–0196 in the “Keyword” box, and then clicking “Search.”

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#### I. Abbreviations

- AHJ Authority having jurisdiction
- ANSI American National Standards Institute
- BLS Bureau of Labor Statistics
- BSEE Bureau of Safety and Environmental Enforcement
- CFR Code of Federal Regulations
- EC European Community
- E.O. Executive Order
- FM FM Global
- FR Federal Register
- GT Gross Tons
- FSS Code International Code for Fire Safety Systems
- IMO International Maritime Organization
- MISLE Marine Information for Safety and Law Enforcement
- MODU Mobile Offshore Drilling Unit
- MRA Mutual Recognition Agreement
- MSC Marine Safety Committee
- NAICS North American Industry Classification System
- NFPA National Fire Protection Association
- NPRM Notice of proposed rulemaking
- NRTL Nationally Recognized Testing Laboratory
- OCMI Officer in Charge, Marine Inspection
- OCS Outer Continental Shelf
- OMB Office of Management and Budget
- OSHA Occupational Safety and Health Administration
- RA Regulatory Analysis
- § Section Symbol
- SOLAS International Convention for the Safety of Life at Sea
- UL Underwriters Laboratory
- U.S.C. United States Code

#### II. Executive Summary

##### A. Purpose of the Final Rule

This final rule updates 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). These updates harmonize our regulations with national and international industry consensus standards, and incorporate other advances in fire protection technologies and standards.

The basis of this 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 for OCS facilities; 46 U.S.C. 3306 mandates the issuance of fire fighting 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 fire fighting 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 fire fighting 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, extinguishing equipment, and materials 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 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 Vessels 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*

The major 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, extinguishing equipment, and materials. These provisions are discussed below and are grouped by equipment type or topic.

Fire detection and alarm systems:

- Provides 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 changes provide vessel owners and/or operators and designers greater flexibility in fire detection and alarm system design for U.S. domestic vessels.

- Consolidates and updates the fire detection and alarm system requirements in 46 CFR subchapter H (passenger vessels). These changes 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 makes it easier for industry to locate and meet these requirements. These requirements reflect advancements in the fire detection and alarm systems industry, which include the development of digital technology and modern seamless electronic technology for the much larger land-based market. The Coast Guard does not require

retrofitting of currently installed systems, but does require any modifications to installed systems or new installations to comply with the updated requirements after a 5-year compliance period.

- Revises 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. These revisions 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 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:

- Replaces the Coast Guard’s weight-based rating system for fire extinguishers with the UL performance-based rating system. Adopting the national industry standard rating system streamlines the selection, inspection, and approval processes for marine fire extinguishers.
- Revises inspection, maintenance and testing requirements for fire

extinguishers by adopting National Fire Protection Association (NFPA) 10 “Standard for Portable Fire Extinguishers” (2010 Edition). NFPA 10 distinguishes between monthly inspections (a visual check) and annual maintenance (a thorough inspection of materials and components, and associated repairs). Vessel crewmembers can continue to perform monthly inspections; however, a certified person is required to conduct annual maintenance. This change aligns Coast Guard regulations with the current industry practice of having annual maintenance performed by certified persons as defined in NFPA 10.

- Codifies the 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 change aligns Coast Guard regulations with current industry practice.

- Reduces the number of spare portable fire extinguishers required on vessels traveling domestic routes. This change is implemented due to the enhanced maintenance requirements that result in more reliable spares, as well as making new spares easier to obtain.

Other fire protection equipment:

- Requires small passenger vessels to carry spanner wrenches for fire hydrants that use 1½ inch diameter hoses. This requirement for small passenger vessels is consistent with spanner wrench carriage requirements for other vessel types, and is necessary to ensure that firehoses can be replaced and deployed as needed.

Fire protection equipment approvals:

- Adds new specification subparts in 46 CFR subchapter Q to address existing and new approval series for fire protection equipment, materials, and components required for use on SOLAS ships. The new approval series and associated subparts codify the standards and procedures currently used by industry to obtain Coast Guard approval for fire protection equipment, materials, and components required on SOLAS ships, and set forth design, construction, testing, and performance requirements satisfying SOLAS requirements for such equipment, materials, and components.

- Codifies an alternative path to Coast Guard approval through an established Mutual Recognition Agreement (MRA) to which the U.S. is a party. The MRA allows for Coast Guard approvals of certain fire protection equipment and materials issued by other nations that are members of the European Community (EC). This change will reduce manufacturer costs and burdens associated with duplicative testing and evaluation for multiple national approvals.

### III. Regulatory History

On January 13, 2014, we published a notice of proposed rulemaking (NPRM) titled “Harmonization of Standards for Fire Protection, Detection, and Extinguishing Equipment” in the *Federal Register* (79 FR 2254). We received twelve letters consisting of 44 separate comments in response to the NPRM. No public meeting was requested and none was held.

### IV. Discussion of Comments and Changes

The Coast Guard received 44 comments in response to the NPRM. These comments were from several maritime organizations, international associations, private companies, and individuals. Eight comments concerned fire alarm and detection systems, eighteen comments concerned fire extinguishers, nine comments concerned other fire protection equipment, and nine comments were classified as general comments. Each comment is discussed below.

#### A. Comments Concerning Fire Alarm and Detection Systems

##### 1. New Approval Processes for Fire Detection and Alarm Systems

The Coast Guard received six comments from four commenters on the changes to approval processes for fire detection and alarm systems.

Two commenters requested that, in addition to the Coast Guard requiring electrical control units and accessories

for fire alarm systems to meet UL 864 “Standards for Control Units and Accessories for Fire Alarm Systems, 2003”, the Coast Guard should also require these products to meet FM Global (FM) 3010 “Approval Standard for Fire Alarm Signaling Systems.” The Coast Guard disagrees with this request. It is a long-standing Coast Guard policy to harmonize its shipping regulations with voluntary consensus standards whenever possible. UL 864 is a voluntary consensus standard and it reflects the input of a balanced group of contributors (e.g., producers, testing organizations, authorities having jurisdiction, and government) combined with the solicitation of public input. Although FM 3010 is a credible resource, it is a proprietary standard developed in-house by FM to enable its personnel to evaluate alarm systems, and it is not a voluntary consensus standard.

Another commenter noted that UL 864 “Standards for Control Units and Accessories for Fire Alarm Systems, 2003” is a consensus standard and should be the preferred standard when determining the appropriate product certification. The Coast Guard agrees with this comment.

One commenter expressed concern that as MODUs are built and have initial acceptance tests conducted overseas, it may prove difficult for the ship builder and/or facility owner to utilize a specific testing entity as required in 46 CFR 161.002–6(a), Testing Requirements, which states that “[d]evices 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.” The Coast Guard disagrees. Certain safety equipment installed or carried on U.S. flag MODUs and foreign flag MODUs operating on the U.S. OCS must be type approved by the Coast Guard as set forth in the applicable inspection subchapters of the U.S. shipping regulations. The testing required to obtain these type approvals is the responsibility of the manufacturer of the equipment and is usually done by accepted independent laboratories. Later, when this equipment is installed on the MODU, the installation must be inspected and approved by a classification society and/or Coast Guard inspector. These are two different approvals. Section 161.002 of CFR 46 applies to testing of the equipment for Coast Guard type approval. Under this section, manufacturers seeking type approval of their equipment must have the equipment tested by an independent laboratory accepted by the Coast Guard

in accordance with § 159.010 or by an NRTL accepted by the Occupational Safety and Health Administration (OSHA) under 29 CFR 1910.7. This final rule gives the equipment manufacturer the additional option of using an NRTL. These tests are different from the initial acceptance tests of safety equipment after installation on vessels, including MODUs, which are not affected by this provision. Instead, acceptance tests of individual installations of type approved systems on inspected vessels will continue to be carried out by classification societies and/or Coast Guard inspectors.

One commenter endorsed the Coast Guard’s proposal to allow the different components of alarm and detection systems to be approved individually under the “device method” in 46 CFR 161.002–19, or continue to be approved collectively under the current “system method” in 46 CFR 161.002–18. The Coast Guard acknowledges this comment.

##### 2. Grandfathering and Compliance Period

The Coast Guard received two comments on grandfathering and the 2½ year compliance period. One commenter stated that the 2½ year period proposed in 46 CFR 76.27–1; 76.27–80; 76.30–1; 76.33–1; 76.35–1, and 161.002–4 for compliance with the new fire alarm and detection system regulations is inadequate, and requested that the Coast Guard consider providing a longer compliance period. The Coast Guard agrees. The Coast Guard is extending the compliance period for the grandfathering of existing fire detection and alarm installations and approvals from 2½ years to five years. This longer compliance period should provide fire alarm and detection system users and manufacturers enough time to comply with the new regulations. In extending the compliance period, the Coast Guard considered that the new fire alarm and detection regulations were proposed in order to harmonize with voluntary consensus standards and not to address a perceived safety deficiency. Similarly, the Coast Guard will extend the period for completing approval programs under the current criteria from 180 days to 1 year, as specified in 46 CFR 161.002–4.

The same commenter found the manner in which the Coast Guard chose to organize the NPRM’s discussion of changes on the grandfathering clause and compliance period for the fire alarm and detection regulations to be confusing and requested the time periods be in numbered paragraphs. Upon review of the discussion in the NPRM (see Section V. A. 4.,

“Grandfathering and 2 and ½ year Compliance Period”), the Coast Guard concurs that the paragraphs in this discussion were confusing and clarifies the discussion of the grandfathering and compliance clauses set forth in 46 CFR 76.27–1, 76.27–80, 76.30–1, 76.33–1, 76.35–1, and 161.002–4 as follows: (1) Existing systems. These existing fire alarm and detection systems (other than certain smoke sampling systems) may be kept and used for the life of the vessel unless and until they are altered. Guidance on what is considered a mere repair versus changes that constitute an altered alarm and detection system is found in 46 CFR 76.27–80(d). Owners and operators are encouraged to contact the local Coast Guard Officer in Charge, Marine Inspection (OCMI) if there is a question on whether a system will be considered altered or repaired. (2) Systems installed during the 5-year compliance period. New systems installed or existing systems altered within five years of the effective date of the final rule will be allowed to use systems meeting the requirements in place just prior to the effective date of the final rule for the life of the vessel unless and until they are altered after the 5-year compliance period. (3) Systems installed after 5-year compliance period. New systems and altered systems installed or altered five years after the effective date of the final rule will have to meet the new regulation requirements and use systems approved under the new approval criteria.

#### *B. Comments Concerning Fire Extinguishers*

##### 1. Ratings

The Coast Guard received ten comments on ratings. One commenter agreed with the Coast Guard’s action to replace the Coast Guard-unique fire extinguisher rating system with the performance-based fire extinguisher rating system of UL 711, “Standard for Rating and Testing of Fire Extinguishers” referenced in 46 CFR 162.028–2 and 162.039–2. The Coast Guard acknowledges this comment.

In contrast, another commenter questioned the replacement of the existing Coast Guard weight-based fire extinguisher rating system, *circa* 1952, with the UL 711 fire extinguisher rating system. The commenter was concerned that the application and coverage of fire extinguishers for vessel fires will be compromised. This commenter raised five specific issues, which we address separately in the next paragraph. The Coast Guard disagrees that the adoption of the UL 711 rating system will

compromise fire safety on vessels. While we agree that the 1952 Coast Guard extinguishing rating system was valid and useful, maintaining a separate rating system is not warranted in light of the general and broad acceptance of the UL 711 rating system, the demonstrated effectiveness of the UL 711 system, and the potential for confusion caused by having a separate rating system for marine use. Moreover, any differences between the two rating systems were taken into account by the Coast Guard in its development of the new requirements for the number, location, size, and type of fire extinguishers that must be carried on vessels, so the same level of fire safety is maintained under the new regulations. For example, see 46 CFR 76.50–10, Table 76.50–10(a).

Turning to the specific issues cited by the commenter, the first issue concerns changes over time in the UL 711 rating system for Class A fire extinguishers, leading to different ratings for the same size extinguishers depending on the year of manufacture. The Coast Guard acknowledges that the UL 711 Class A rating system has changed more than once over the years, whereas the Coast Guard rating system has not. However, such changes may be in response to changes in technology or the end user market and are subject to consensus review. Thus, such changes are the reason the maritime industry will benefit from the incorporation of the consensus-based, voluntary UL 711 standard rather than being a reason not to adopt the standard.

Similarly, the second issue concerns two changes to the UL 711 rating system of Class B fire extinguishers, leading to higher recent ratings for the same size extinguishers. Again, these changes reflect changes in technology and are subject to consensus review; these are not a reason not to incorporate the UL 711 standard.

The third issue concerns the test that is used in the UL 711 standard to rate Class B extinguishers, wherein professional test operators extinguish heptane (a flammable liquid) fires in open, flat and unobstructed test pans. Specifically, the commenter is concerned that this test covers only one fire scenario and that the tests on which the rating is based are too difficult for most novices to accomplish. The Coast Guard acknowledges that the UL 711 Class B fire extinguisher ratings are based on only one fire scenario and that the test results reflect the skill of the professional test operators. However, the UL 711 rating system is an effective way of broadly ranking the effectiveness of various extinguishers on Class B fires

in a consistent and repeatable manner, carried out by a professional laboratory. Moreover, the Coast Guard’s new rules on the number, location, sizes and types of fire extinguishers required onboard for various hazards take into account the rating process.

The fourth issue concerns some extinguisher standards moving away from numerical ratings for Class B fires and instead specifying minimum agent capacities and flow rates for certain fire scenarios. The commenter cites NFPA 10 as requiring minimum quantities and flow rates for certain hazards. While NFPA 10 does specify quantities and flow rates of agents for certain hazards, it still relies on the fire test standard of UL 711 in its general prescriptions for the size and placement of extinguishers for general fire hazards. Again, the Coast Guard’s new rules on the number, location, sizes and types of fire extinguishers required onboard for various hazards take into account the expected capabilities of extinguishers classified according to the fire test standards of UL 711.

The fifth issue concerns the commenter’s views that the UL 711 test for electrical conductivity is inadequate because it measures the conductivity across the fire extinguishers’ discharge stream and not across a pool of the extinguishing agent, and that use of extinguishers approved under the standard could be dangerous. The Coast Guard disagrees. The Coast Guard believes that the UL 711 test adequately measures electrical conductivity of extinguishing agents, that the extinguishers are safe when used properly, and the Coast Guard is not aware of any casualty analysis demonstrating the inadequacy of the UL 711 conductivity test. Moreover, as a voluntary consensus standard, the UL 711 test has broad acceptance and is almost universally used in domestic residential, municipal and industrial applications to good effect.

Another commenter noted that UL 711 is not a certification standard and therefore, those laboratories referenced would strictly be testing laboratories. The Coast Guard acknowledges this comment and notes that the regulations in question, 46 CFR 162.028–2 and 162.039–2, refer to “approval tests.” The commenter added that the appropriate references to the fire extinguisher certification standards are ANSI/UL 8, ANSI/UL 154, ANSI/UL 299, ANSI/UL 626, and ANSI/UL 2129. The Coast Guard acknowledges these designations; however, per guidance from the Office of the Federal Register stating that UL published documents must be incorporated by reference as UL

documents, the Coast Guard will not add “ANSI” in the title of these documents since they are not ANSI published documents.

The same commenter recommends that the requirements in 46 CFR 162.039–3(b) be revised to be consistent with the UL 8 (Section 6.11), UL 154 (Section 6.10), UL 299 (Section 6.11), UL 626 (Section 6.11), and UL 2129 (Section 6.11) such that semi-portable fire extinguishers are designated based on overall weight of 60 pounds rather than 50 pounds. The Coast Guard is maintaining the weight limit at which fire extinguishers are designated as semi-portable at 50 pounds. The 50-pound weight limit was chosen to harmonize with the 23 kg portable extinguisher limit that is prescribed by the International Code for Fire Safety Systems (“FSS Code”). U.S.-flagged vessels engaged in international trade are required to meet the International Convention for Safety of Life at Sea (“SOLAS”) and FSS Code regulations.

One commenter endorsed the Coast Guard’s effort to reduce unnecessary complexity and confusion for fire equipment standards on vessels by providing an efficient approach to regulating fire extinguishers through less complex carriage requirements and incorporation of the UL rating system. The Coast Guard acknowledges this comment.

## 2. Maintenance Requirements

The Coast Guard received five comments on the new maintenance requirements. One commenter suggested that the Coast Guard identify acceptable training organizations to certify personnel before they are allowed to maintain and recharge fire extinguishers. We disagree. In the Coast Guard’s experience, service providers who are licensed and certified in the local communities have proven reliable and there does not appear to be a need to change this.

One commenter endorsed the Coast Guard’s action of requiring an annual inspection of portable fire extinguishers by qualified service personnel while allowing the appropriate vessel crew members to perform the required monthly visual inspection of portable fire extinguishers. The Coast Guard acknowledges this comment.

Another commenter suggested that our regulations account for the different fire extinguisher designs, special types of service equipment, and personnel training required to service them. While the Coast Guard acknowledges that different types of fire extinguishers may require different equipment and techniques to service and recharge

them, we have relied upon service providers who are licensed and certified by local authorities. This practice has proven to be reliable and there does not appear to be a need to change it.

One commenter expressed concern with the requirements in 33 CFR 145.01 and 46 CFR 107.235 and several other regulations which state that fire extinguisher servicing agencies are required to be certified by the state or local jurisdiction, suggesting that this would be problematic on waters bordered by multiple jurisdictions. The Coast Guard agrees with the commenter. We did not intend to specify any particular jurisdiction but rather want to ensure that the certification is conducted by an appropriate authority having jurisdiction (AHJ) to perform the certifications. The Coast Guard has revised these regulations by changing “the” to “a,” to state that “[c]ertification or licensing by a 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 cylinders.”

One commenter endorsed requiring qualified service personnel certified by local AHJs to conduct annual inspections of fire extinguishers, while endorsing vessel crew members to perform monthly visual inspections of fire extinguishers. The Coast Guard acknowledges this comment.

## 3. Spare-Extinguisher Requirements

The Coast Guard received three comments on the new spare-extinguisher requirements. One commenter suggested that the new spare extinguisher requirements must specifically address details of the procedures and equipment for recharging spent fire extinguishers. This comment mentioned three specific issues, which we address in the following paragraph. In general, however, the Coast Guard disagrees that the requirements for spare extinguishers require detailed regulations relating to recharging fire extinguishers. The spare fire extinguisher requirements in 46 CFR 34.50–10(a), 76.50–10(a), 95.50–10(a), 108.495, 169.567(a), and 193.50–10(a) refer to the number of complete and ready-to-use fire extinguisher units that must be carried on a vessel. These regulations do not address the carriage of spare charges for extinguishers; therefore, it is unnecessary to include spare-recharge requirements in these regulations.

Turning to the specific issues cited by this commenter, the first is a suggestion that the spare extinguisher regulations

establish which types of fire extinguishers may be recharged and serviced by crews underway. First, as mentioned above, the new spare extinguisher regulations refer to complete units and not spare charges. Second, while the Coast Guard acknowledges that some types of fire extinguishers are more easily recharged than others, there have been no indications that existing practices warrant regulatory change. Instead, the Coast Guard will continue to rely on the AHJs to certify personnel to recharge extinguishers, and to rely on these certified personnel to recharge the extinguishers properly.

The third issue raised is that the number of spare fire extinguishers should take into account the different storage, recharge, service and calibration requirements for the different types of fire extinguishers carried. Under the new regulations, however, required spares must be complete and ready-to-go fire extinguisher units. Any spare recharges that may be carried onboard are surplus to this requirement and need not be addressed in the regulations.

## C. Comments Concerning Other Fire Protection Equipment

### 1. Spanner Wrench Carriage Requirements

The Coast Guard received two comments on the spanner wrench carriage requirements. One commenter agrees with the revisions in 46 CFR 181.310 that will allow 46 CFR subchapter T vessel operators to use two 1½ inch-diameter firehoses at external vessel locations instead of one 2½ inch hose. The Coast Guard acknowledges this comment.

The same commenter agreed with our requirements to install spanner wrenches at all 1½ inch fire hydrants; however, the organization represented by the commenter, expressed concern with the 30-day compliance period upon the publication of this rule. The organization noted that small passenger vessels comprise half of the inspected U.S.-flagged vessel fleet and that information dissemination, purchase, and installation all have an impact on a reasonable response time. When the current rules for 46 CFR Subchapter T small passenger vessels were written, we inadvertently omitted the requirement to have spanner wrenches at all 1½ inch hydrants. The commenter suggests that a more appropriate interval for compliance might be 60 days or the date of the vessel’s first annual inspection after this final rule is published, or whichever is later. The Coast Guard agrees with the commenter

and will revise the regulations in 46 CFR 118.310 and 181.310 to establish a 180-day compliance period.

## 2. Use of Non-Metallic Pipe

One commenter agreed with the revisions in 46 CFR 182.720 that will allow 46 CFR subchapter T vessels to use non-metallic piping in non-vital systems per the requirements in 46 CFR 56.60–25(a)(3), as an alternative to those prescribed in subchapter T. The Coast Guard acknowledges this comment.

## 3. Use of Plastic Pipe

One commenter noted that the requirement in 46 CFR 56.60–25(a)(7) limits the certification of plastic pipe being used for potable water to certain laboratories. It was not our intent to unnecessarily exclude any appropriately qualified independent laboratories. Therefore, the Coast Guard is amending the requirement in 46 CFR 56.60–25(a)(7) to require “[p]ipe that is to be used for potable water must bear the appropriate certification mark of a nationally-recognized, ANSI-accredited third-party certification laboratory” rather than referring to one particular set of laboratories.

## 4. Sprinkler System Requirements

The Coast Guard received one comment on 46 CFR 76.25–1, “Application.” The commenter suggested that in addition to requiring Chapter 25 of NFPA 13, “Standard for the Installation of Sprinkler Systems” (2010 Edition), for the design and installation of sprinkler systems, the Coast Guard should also require sprinkler systems to meet the design and installation requirements found in NFPA 15, “Standard for Water Spray Fixed Systems for Fire Protection,” and NFPA 16, “Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems.” The Coast Guard disagrees. Chapter 25 of NFPA 13 is specifically directed to the unique requirements of marine, onboard, fixed fire extinguishing systems. In contrast, neither NFPA 15 nor NFPA 16 has such specific sections dealing with specifically address marine installations. Although most shore side fire protection engineering principles are adaptable to marine use, nevertheless the design and operating environment of ships is different enough to warrant special consideration. For instance, marine layout and configuration is different from buildings, and the marine environment is harsher due to salt air, salt water, vibrations and rough seas. Thus, fire extinguishing systems must be adapted to this environment.

## 5. Carbon Dioxide Fire Extinguishing System Requirements

The Coast Guard received one comment on 46 CFR 147.65, “Carbon dioxide and Halon fire extinguishing systems.” The commenter suggested that the Coast Guard extend the visual inspection requirements of Halon 1301 fire extinguishing systems to clean agent fire extinguishing systems. The Coast Guard disagrees. Halon 1301 fire extinguishing systems no longer need to be periodically emptied, hydrostatically tested, and refilled. In part, this is because the international ban on the production of Halon 1301 requires carefully controlled reclamation and collection of Halon 1301, making the emptying and refilling of Halon 1301 cylinders expensive and impractical for vessel owners. Instead, this testing will be replaced with a visual inspection. This change was made to avoid the risk of accidentally releasing Halon, an ozone-depleting agent that is very harmful to the atmosphere. As an alternative, halocarbon clean agents may be visually inspected per the existing regulations in 46 CFR 147.67. However, the hydrostatic testing method is being kept for the inert gas clean agents, in keeping with the recommendations of NFPA 2001, “Clean Agent Fire Extinguishing Systems” (2012), which is a consensus standard.

## 6. Portable Foam Applicators

One commenter agreed with the Coast Guard’s action to allow the use of UL 162, “Standard for Foam Equipment and Liquid Concentrates,” (Seventh Edition) for the type approval of portable foam applicators found in 46 CFR 162.163–3 and 162.163–4. The Coast Guard acknowledges this comment.

## 7. Independent Laboratories

Two commenters endorsed the standards in 46 CFR 159.010–3 for the acceptance of independent laboratories. These comments are acknowledged.

### D. General Comments

The Coast Guard received nine comments on the NPRM that we have categorized as general comments. Below we discuss the comments and our responses.

#### 1. Testing Laboratories

One commenter noted that the list of OSHA nationally recognized testing laboratories referenced in “Table 46 CFR 34.50–10(a) Portable and Semi-Portable Extinguishers” footnote 13 should have included UL. The Coast Guard acknowledges that UL is listed as an OSHA NRTL (see <https://www.osha.gov/dts/otpca/nrtl/>

[nrtl/otpca/nrtl/](#)). No change in footnote 13 is required in response to this correction since the footnote only refers to OSHA NRTLs in general, and does not list them.

#### 2. Incorporation by Reference

One commenter endorsed the Coast Guard’s incorporation by reference of UL 8 “Standard for Foam Fire Extinguishers,” UL 154 “Standard for Safety for Carbon-Dioxide Fire Extinguishers,” UL 299 “Standard for Safety for Dry Chemical Fire Extinguishers,” UL 626 “Standard for Safety for Water Fire Extinguishers” and UL 2129 “Standard for Halocarbon Agent Fire Extinguishers” for the testing and labeling of fire extinguishers in 46 CFR 162.028–2 and 162.039–2. The Coast Guard acknowledges this comment.

One commenter advised us that the title to UL 626 was changed to “Standard for Safety for Water Fire Extinguishers.” In response, the Coast Guard has amended the title of UL 626 to reflect the correct name of the standard.

#### 3. Acceptance of Equipment Approved to Solas Requirements as Equivalent to CFR Requirements

One commenter supported the Coast Guard’s recognition and acceptance of certain equipment, materials, and components approved under SOLAS. The Coast Guard acknowledges this comment. However, the commenter requested to know how industry could alleviate any possible conflicts that may exist in other regulations and in published Navigation and Vessel Inspection Circulars with regard to the SOLAS/Coast Guard equivalency provisions referenced in the NPRM (e.g., 33 CFR 140.15 (b), which requires specific Coast Guard type approval). The Coast Guard does not detect a conflict. Where Coast Guard regulations require type approval of equipment they clearly state such approval shall be made by the Commandant of the Coast Guard. This is in accord with SOLAS, which has regulations that call for approved equipment, but leaves the approval of the equipment to the Administration, which in the United States means the Commandant, for vessels and MODUs under the United States’ flag. The new rules simplify which standards must be used for the approval of materials and equipment for use on domestic vessels by allowing these vessels an option to have structural fire protection in accordance with SOLAS and applicable FTP Code provisions, and by adopting FTP Code and FSS Code provisions for certain

types of fire extinguishing and detecting equipment. This is not a blanket adoption of these international standards for the approval of all materials and equipment on domestic vessels. However, the applicable regulations must be consulted for specific situations, especially if the SOLAS option for structural fire protection is not selected. Interested parties also are referred to the applicable regulations, and NVIC 06–05, Unified Interpretations of SOLAS Chapter II–2, the FSS Code, the FTP Code and related fire test procedures, and NVIC 9–97, CH1, Guide to Structural Fire Protection.

#### 4. Harmonization

The Coast Guard received four comments regarding harmonization with national and/or international standards.

While endorsing the new fire extinguisher regulations, one commenter expressed concern about the fire protection, detection, and extinguishing equipment provisions for harmonizing Coast Guard requirements with international standards because they are so complex that it is difficult to determine exactly how they impact towboats that operate only in domestic inland waters. If these standards do apply to such vessels, the commenter requested that the Coast Guard extend the comment period and hold public meetings to better explore the impacts of these revisions on inland towing vessels to ensure that international standards are not automatically applied to inland U.S. mariners and vessel operations since their operating environment is drastically different. The commenter added that it seems as though there are no direct impacts to the domestic towboat industry; however, the commenter urged the Coast Guard to ensure that any future considerations to apply international standards to domestic-only vessels be done only after discussions with domestic inland towing vessel operators. The Coast Guard acknowledges the commenter's concerns. Where international SOLAS or consensus standards apply to domestic vessels in the rule, these standards provide flexibility by allowing for regulatory alternatives to the existing regulations and do not change the existing domestic requirements. For this reason, neither an extension of the comment period nor a public meeting on this subject is needed. One commenter endorsed the Coast Guard's harmonization of standards for fire protection, detection, and extinguishing equipment. This comment is acknowledged.

Two commenters supported the Coast Guard's objective of harmonizing fire protection requirements; however, consistent with that objective and the Coast Guard's commitment to a "one shelf, one standard policy," the commenter's recommended that in the interest of safety and regulatory efficiency, the Coast Guard and the Department of Interior Bureau of Safety and Environmental Enforcement (BSEE) should promulgate joint fire protection requirements for OCS facilities. Both the Coast Guard and the BSEE have statutory authority for regulation of MODUs and facilities on the OCS. Generally, the Coast Guard regulates the MODUs as inspected and certificated vessels, while the BSEE regulates the MODUs when attached and engaging in drilling operations. Accordingly, the Coast Guard and the BSEE have apportioned the responsibilities for the regulation of the various systems associated with MODUs between themselves as the lead agencies. Under this apportionment, the Coast Guard is responsible for fire protection on MODUs except for the drill floor and related areas. None of the regulations in the current rulemaking affect the drill floor and related areas, therefore the Coast Guard has determined that this final rule does not conflict with any BSEE regulations. Moreover, the Coast Guard and the BSEE systematically coordinate so as to promulgate regulations that foster fire safety, among other objectives, in an efficient manner.

#### 5. Preemption

One commenter agrees with the revisions to existing regulations and the issuance of new regulations that preempt state and local regulation with regard to fire protection, detection, extinguishing equipment, and materials on several types of vessels. These vessels include inspected vessels, uninspected vessels, uninspected commercial fishing vessels, towing vessels, deepwater ports, MODUs, and OCS facilities. This commenter urged the Coast Guard to add specific regulatory language stating that the requirements in 46 CFR subchapters H, K, and T completely preempt state and local regulations. The Coast Guard acknowledges this comment, and refers to the preemption section of this preamble below which is consistent with applicable law.

#### V. Summary of Changes From NPRM

Changes made in the final rule in response to comments are discussed in detail above in Section IV, "Discussion of Comments and Changes". Additional

changes are discussed individually below.

The Coast Guard has added a comma to sections 46 CFR 76.10–10(b)(2) and 95.10–10(b)(2) to make clear that one wye connection supplies two 1½ inch hoses. Section 193.10–10(b) of Title 46 of the CFR already had this comma.

In 46 CFR 76.10–10(d), the existing requirement that there be enough hydrants such that two hose streams reach all parts of the vessel accessible to passengers and crew other than machinery and cargo spaces was inadvertently deleted. We are restoring this two-hose-stream requirement in the final rule.

In the NPRM, the Coast Guard proposed that the number of spare fire extinguishers that must be carried on domestic vessels be reduced from 50 percent of the number of extinguishers required to as low as 10 percent. We also sought specific comments on the appropriate percentage of spares necessary, along with a brief explanation. Because we received no specific comments or suggested percentages of spares in response, we are setting the percentage of spares required at 10 percent in the final rule based on the rationale set forth in the NPRM that a reduction in the number of spares required is warranted by the enhanced maintenance provided by the new regulations and by the ease in the ability to source spares when needed. The tables that specify the 10 percent spare requirement are 46 CFR 34.50–10(a), 76.50–10(a), 95.50–10(a), and 108.495. Tables to 46 CFR 132.220 and 193.50–10(a) are already set at the 10 percent requirement rate. Other fire extinguisher tables do not reference spares, so they remain unchanged.

Spacing and indentation have been changed for the "Spares" row in the required fire extinguishers tables in order to clarify that the "Spares" row is a separate category and not part of the category immediately above it. This change was made to the tables to 46 CFR 76.50–10(a), 95.50–10(a), 108.495, 132.220, and 193.50–10(a). Table to 46 CFR 34.50–10(a) was already correctly spaced.

In response to comments, the Coast Guard revised 46 CFR 56.60–25(7) to allow all nationally-recognized, ANSI-accredited, third-party certification laboratories to be used to certify plastic pipe carrying potable water, rather than specific laboratories.

In response to comments, the Coast Guard revised the following sections to clarify that any appropriate AHJ can be used: See 33 CFR 145.01(b)(1), and 149.408(b); and 46 CFR 25.30–10(b), 31.10–18(a)(1), 91.25–20(a)(1)(i),

107.235(a)(1), 169.247(a)(1)(i), 176.810(b)(1)(i), and 189.25–20(a)(1)(i).

In response to comments specifically requesting a change in the compliance period, we revised the following sections to extend the compliance period for new and altered detection and alarm systems from 2½ years to 5 years: 46 CFR 76.27–1, 76.27–80, 76.30–1, 76–33–1(a) & (b), and 76.35–1(b). Furthermore, the Coast Guard revised 46 CFR 161.002–4(b) and (c) to extend the allowable period for obtaining approvals of detection and alarm systems based on the provisions in place prior to the effective date of this rule.

The Coast Guard revised sections 46 CFR 118.310 and 181.310 to extend the compliance period for obtaining 1½ inch spanner wrenches from 30 to 180 days from date of publication of the final rule in response to comments.

As a result of one comment, the Coast Guard revised the following sections to correct the name of UL 626 to “Standard for Safety for Water Fire Extinguishers:” 46 CFR 162.028–1(b)(4), 162.028–3(a)(4), 162.039–1(c)(4), and 162.039–3(a)(4).

To harmonize this regulation with a separate and concurrent rulemaking for commercial towing vessels (see the Inspection of Towing Vessels notice of proposed rulemaking (76 FR 49976, August 11, 2011)), the Coast Guard deleted requirements regarding excess non-approved fire detection systems onboard uninspected towing vessels in proposed 46 CFR 27.203(b)(2) and 27.203(b)(3), respectively. Specifically, the requirements for installation of these systems to conform to 46 CFR chapter I, subchapter J, (Electrical Engineering) and for the Coast Guard to review wiring plans were removed because they exceed those found in the towing vessels proposed rulemaking. Proposed § 27.203(b)(4) was renumbered to § 27.203(b)(2). The Coast Guard does not

require these excess systems to be inspected aboard uninspected vessels therefore the requirement for testing and inspection was removed from new § 27.203(b)(2) in the final rule.

Commercial fishing vessels are also uninspected. Proposed 46 CFR 28.155(a)(2) and 28.155(a)(3), mirrored the proposed §§ 27.203(b)(2) and 27.203(b)(3) above and were likewise removed to maintain consistency with uninspected towing vessels. Additionally, proposed § 28.155(a)(4) was renumbered to § 28.155(a)(2), and the statement requiring testing and inspection was removed from new § 28.155(a)(2) for the same reason as discussed for proposed § 27.203(b)(4) above.

The Coast Guard has the authority to test and inspect any and all systems required under the various inspection subchapters in both Title 33 and Title 46 CFR. Superfluous proposed requirements in 33 CFR 149.404(b)(4); and 46 CFR 34.01–5(b)(4), 76.01–5(b)(4), 95.01–5(b)(4), 118.120(b)(4), 132.340(b)(4), 167.45–30(b)(4), 181.120(b)(4), and 193.01–5(b)(4) were subsequently removed in this final rule.

**VI. Regulatory Analyses**

We developed this rule after considering numerous statutes and Executive Orders (E.O.s) related to rulemaking. Below we summarize our analyses based on these statutes or E.O.s.

*A. Regulatory Planning and Review*

Executive Orders 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). Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. This rule has not been designated a “significant regulatory action,” under section 3(f) of Executive Order 12866. Accordingly, the rule has not been reviewed by the Office of Management and Budget. A final Regulatory Assessment follows.

As previously noted in Section IV, “Discussion of Comments and Changes”, we received 44 comments in response to the NPRM. These comments were from several maritime organizations, international associations, private companies, and individuals. Eight comments concerned fire alarm and detection systems, 18 comments concerned fire extinguishers, nine comments concerned other fire protection equipment, and nine comments we classified as general comments. We received no comments regarding the regulatory analysis (RA) performed for the NPRM. Therefore, we adopt the methodology and assumptions for the costs and benefits from the NPRM as final. However, we have updated the analysis with the current affected population, wage rates, training costs, and equipment cost estimates as reflected in the revised analysis below. For brevity, we omit all items which we previously determined will impose no new burden on industry and are not expected to result in additional costs. For a detailed discussion refer to the January 13, 2014 NPRM publication entitled, “Harmonization of Standards for Fire Protection, Detection, and Extinguishing Equipment” in the **Federal Register** (79 FR 2254). The table below summarizes the elements in the analysis that were updated between the NPRM and the final rule.

TABLE 2—SUMMARY OF CHANGES BETWEEN NPRM AND FINAL RULE

Category	Description	Rationale
Affected Population .....	Updated estimates for the affected population of vessels, offshore facilities, MODUs, and recreational vessels.	Updated the 2012 data pull with 2013 data to reflect the most current full year estimates in MISLE and Recreational Boating Statistics.
Wages .....	Loaded wage for BLS occupation code 53–5011, Sailors and Marine Oilers.	Updated the 2012 BLS loaded wage estimates with 2013 estimates.
Wages .....	Loaded wage for BLS occupation code 53–5021, Captains, Mates, and Pilots of Water Vessels.	Updated the 2012 BLS loaded wage estimates with 2013 estimates.
Compliance Period .....	Compliance period proposed in 46 CFR 76.27–1; 76.27–80; 76.30–1; 76.33–1; 76.35–1, and 161.002–4 for new fire alarm and detection system increased from 2½-years to 5 years.	Facilitate harmonizing with voluntary consensus standards without imposing additional costs on industry, lining up with our initial assessment.
Compliance Period .....	Compliance period for carriage of spanner wrenches in 46 CFR 181.310 increased from 30 days following publication of the final rule to 180 days.	Response to public comment. No impact on initial assessment.



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

TABLE 3—SUMMARY OF THE IMPACTS OF THE FINAL RULE

Category	Summary
Affected Population .....	Affected population varies by CFR title and subchapter, see Table 4 below.
Total and Annualized Costs (7 percent discount rate).	\$1.1 million total costs; \$156,588 annualized costs.
Unquantified Benefits .....	<ul style="list-style-type: none"> <li>• Harmonization and compliance with international standards;</li> <li>• Harmonization with industry consensus standards;</li> <li>• Increased compliance choices, reducing regulatory compliance burdens;</li> <li>• Reduction in risk from potentially toxic or flammable gases no longer being routed into human-occupied spaces; and,</li> <li>• Increased safety through the availability of tools and equipment during emergency situations.</li> </ul>

The final rule contains provisions amending the CFR requirements for fire protection equipment, materials, components, and systems. In the NPRM, Section V, “Discussion of Proposed Rule”, laid out the proposed changes and the rationale for those changes. The provisions fell 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 provisions, both harmonizing and non-harmonizing, were not expected to impose additional costs upon the industry. However, we

identified three provisions which we expect to have a cost impact on industry:

(1) Sample extraction type smoke detection systems requirements, which specify 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;

(2) Fire extinguisher carriage and maintenance requirements, which eliminate the current Coast Guard-specific rating system for fire extinguisher classification, and specify that individuals performing annual inspection, maintenance, or necessary

recharging of fire extinguishers must be certified in accordance with the standards of NFPA 10; and,

(3) Spanner wrench carriage requirements for small passenger vessels, which specify that all subchapter K and T vessels carry a spanner wrench for each 1½ inch diameter hose installation.

Based on these elements, Table 4 shows the total affected population and the numbers of vessels, offshore facilities, and MODUs organized by CFR subchapter. For each of the three provisions noted before, we identified the affected population and the respective economic impacts.

TABLE 4—AFFECTED POPULATION

CFR Title	Subchapter	Topic	Population
33 .....	N	Outer Continental Shelf Facilities .....	8,573
33 .....	NN	Deepwater Ports .....	56
46 .....	C	Uninspected Vessels .....	11,232,060
		Towing Vessels .....	7,961
		Uninspected Vessels .....	86,370
		Fishing Vessels .....	34,723
		Recreational Vessels* .....	11,103,006
46 .....	D	Tank Vessels .....	5,362
46 .....	F	Marine Engineering .....	n/a
46 .....	H	Passenger Vessels .....	308
46 .....	I	Cargo and Miscellaneous Vessels .....	1,750
46 .....	I-A	Mobile Offshore Drilling Units (MODU) .....	259
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.	591
46 .....	L	Offshore Supply Vessels .....	1,548
46 .....	N	Dangerous Cargoes .....	42
46 .....	Q	Equipment, Construction and Material Specifications and Approval.	n/a
46 .....	R	Nautical Schools .....	127
46 .....	T	Small Passenger Vessels (Under 100 Gross Tons) ....	11,157
46 .....	U	Oceanographic Research Vessels .....	888

\* Mechanically propelled recreational vessels

Source: USCG MISLE database for all non-recreational populations. Recreational vessel population is from COMDTPUB P16754.27—2013 Recreational Boating Statistics, Table 37, available at <http://www.uscgboating.org/assets/1/AssetManager/2013RecBoatingStats.pdf>.

Costs

In the following discussion, we describe the impacts for each of the three categories for the provisions listed in the previous paragraphs. As previously noted, we received no comments regarding the RA we performed for the NPRM. We therefore adopt the methodology and cost assumptions as final. However, we have updated this section using 2014 population estimates, wage rates, training costs, and equipment costs.

(1) Sample Extraction Type Smoke Detection Systems

This requirement implements changes regarding the ventilation of potentially toxic or flammable gases. Previous regulations allowed systems to route these potentially toxic or flammable gases or smoke from the cargo hold to the bridge so that a watchstander could detect a problem by smell. International consensus standards consider this practice 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 new provisions, found in 46 CFR 76.33, require that 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 on 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 Marine Information for Safety and Law Enforcement (MISLE) database which documents the types of fire detection systems installed on vessels, the affected population for this provision includes three vessels: two active SOLAS vessels built before May 25, 1980, and one active non-SOLAS vessel.

Information from the U.S. Bureau of Labor Statistics (BLS) indicates that the loaded mean hourly labor cost (wages and benefits) is \$28 for Sailors and

Marine Oilers (BLS occupation code 53-5011<sup>1</sup>). This loaded wage rate includes the hourly base wage rates of \$19.56 multiplied by a load factor of 1.43 (rounded).<sup>2</sup> We estimate the cost per vessel to comply with this provision at \$1,243. This includes 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 \$28.00 per hour × 6 hours = \$168). We assume that one of the affected vessels will comply each year (given 5 years to meet compliance) beginning in the third year after publication of this final rule.<sup>3</sup>

Over the 10-year period of analysis, we estimate the total present value costs of this provision to be about \$2,849 and \$3,314 discounted at 7 and 3 percent, respectively. We estimate the annualized costs to be approximately \$695 and \$724 discounted at 7 and 3 percent, respectively. Table 5 summarizes the costs of this provision to industry.

TABLE 5—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	\$1,243	\$0	\$0	\$0
2 .....	0	1,243	0	0	0
3 .....	1	1,243	1,243	1,015	1,138
4 .....	1	1,243	1,243	948	1,104
5 .....	1	1,243	1,243	886	1,072
6–10 .....	0	1,243	0	0	0
Totals* .....	3	—	3,729	2,849	3,314
Annualized .....				695	724

\* Totals may not sum due to rounding

(2) Fire Extinguishers

This rule makes 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.

Ratings: UL 711 and NFPA 10:2010

These provisions apply to all the affected populations carrying portable and semi-portable fire extinguishers listed in Table 4, including recreational vessels. These provisions eliminate the current Coast Guard-specific rating system for fire extinguisher

classifications, in favor of the classifications specified in the relevant national industry standards. The Coast Guard rating system relied on a prescriptive 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 of Title 46 of the CFR require labeling of approved extinguishers with specific language which includes the Coast Guard rating of the extinguisher.

As a result, the Coast Guard rating system was a duplicative and confusing requirement that was inconsistent with current industry standards.

With this change, manufacturers of fire extinguishers no longer have to label their extinguishers with the Coast Guard rating. Extinguisher labeling will remain consistent with current industry formats and styles, and manufacturers will not need to redesign their current labels. This simplifies labeling requirements for manufacturers and limits confusion for purchasers of fire extinguishers for marine use. Currently, all fire extinguishers with Coast Guard-specific approval are marked with a UL

<sup>1</sup> <http://www.bls.gov/oes/2013/may/oes535011.htm>.

<sup>2</sup> Load factor is determined by dividing the reported total average compensation for all private industry workers of \$30.11 per hour worked as reported in June, 2014 by the wages and salaries per

hour worked of \$21.02. “Table 9. Private industry workers, by major occupational group: employer costs per hours worked for employee compensation and costs as a percentage of total compensation, 2004–2014,” available at: <http://www.bls.gov/ncs/ect/sp/ececcqrtn.txt>.

<sup>3</sup> We anticipate that vessel owners will use the first two years, after this rule goes into effect, for planning purposes to schedule for upgrading to the new requirement.

rating. Therefore, 46 CFR 162.028–4 and 162.039–4 will no longer require labeling of approved extinguishers with Coast Guard rating language. The removal of these requirements eliminates confusion and has no impact on the approval procedure. We anticipate that manufacturers will continue using their current supply of labels and will only remove the Coast Guard-specific rating information when they order new labels. Industry therefore will not incur any additional expense from this requirement.

The changes also include adjusting the current carriage requirements for fire extinguishers 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 previously noted in the NPRM, section “V. Discussion of Proposed Rule”, we established close correlation between Coast Guard ratings and the NFPA 10 and UL 711 ratings, so that the number and relative size of extinguishers does not change. In some cases, however, a slightly larger or smaller extinguisher may be required.

This rule does 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, replacement fire extinguishers will have to meet the requirements of this rule. New vessels, constructed after the publication of the final rule, are required to be equipped with extinguishers that conform to the new requirements.

Whenever they become unserviceable, all portable and small semi-portable fire extinguishers will 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 between extinguishers approved under the previous Coast Guard standard and comparable extinguishers rated according to 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 provisions requiring UL class fire extinguishers will affect certain vessels using large semi-portable CO<sub>2</sub> extinguishers (class B–IV and B–V). Extinguishers of this size are required in

certain machinery spaces of vessels described under the different subchapters as shown in Table 4. The Coast Guard’s previous weight-based rating system allowed CO<sub>2</sub> extinguishers to be used where larger semi-portable extinguishers were required. However, CO<sub>2</sub> extinguishers cannot meet the UL performance standards to receive a sufficient rating to be considered equivalent to class B–IV and B–V extinguishers under those standards, therefore semi-portable CO<sub>2</sub> extinguishers will no longer be permitted to be used in these circumstances. However, as with all other extinguishers, existing vessels do not have to replace their currently operational extinguishers and may continue to use these extinguishers in machinery spaces until they become unserviceable, when they will have to be replaced with extinguishers of comparable classification under the UL rating scale. Vessels using CO<sub>2</sub> based extinguishers will be required to replace their semi-portable CO<sub>2</sub> extinguisher with an extinguisher that uses another extinguishing agent.

To determine if there is a cost differential between the current Coast Guard-approved CO<sub>2</sub> 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 CO<sub>2</sub> based B–V extinguisher is approximately \$5,000, whereas the B–V extinguishers using other agents range in price from \$1,200 to \$2,000. This cost differential will result in a net savings<sup>4</sup> for all vessels that replace these larger CO<sub>2</sub> extinguishers as we will not require replacement ahead of the normal replacement schedule.

#### Maintenance: NFPA 10: 2010

These provisions 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 collect or maintain records of personnel who are currently NFPA 10 certified, so we estimated 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 can continue to be done by owners, operators or designated crewmembers. Uninspected vessels, including recreational vessels, generally carry these types of extinguishers and are therefore not expected to be subject to any additional costs due to these provisions.

The Coast Guard is not requiring that the vessel owners, operators, or designated crewmembers performing monthly inspections and annual maintenance of rechargeable fire extinguishers be NFPA 10 certified. NFPA 10 requires that a “certified” person perform all annual maintenance of rechargeable extinguishers. Under this rule, monthly inspections can continue to be performed by the owner, operator or a designated crewmember. For annual maintenance required by this rule carried out by persons certified under NFPA 10, the Coast Guard will accept the certification or licensing of a fire extinguisher servicing company according to NFPA 10, granted by an appropriate state or local AHJ for servicing and maintenance.

The Coast Guard’s MISLE database contains records on approximately 114,395 fire extinguishers on 17,228 U.S.-flagged vessels which may 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 assumed that all of the extinguishers are rechargeable. We also estimated that more than 90 percent<sup>5</sup> 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 include the certification costs for owner/operators who wish to continue performing annual maintenance according to NFPA 10

<sup>4</sup> We are unable to provide a cost estimate for the savings that vessels may incur from replacing CO<sub>2</sub> extinguishers, because there is no way of knowing the exact number of CO<sub>2</sub> extinguishers being carried on vessels or the rate of future replacements.

<sup>5</sup> The 90 percent is an estimate provided by subject matter experts from Coast Guard’s Lifesaving & Fire Safety Division, Office of Design & Engineering Standards based on input from field marine inspectors.

specifications. We estimate that 10 percent or 1,723 vessels are currently not using a private servicing company to maintain their extinguishers. We, therefore, assume that a designated

individual from each of these vessels will continue to perform annual maintenance on their extinguishers and will therefore need to obtain certification. Table 6 summarizes the

population of vessels and fire extinguishers, as well as the average extinguisher count per vessel.

TABLE 6—AFFECTED POPULATION FOR VESSELS CHOOSING CERTIFICATION

CFR Subchapter	Existing population		Affected population (10 percent of existing)		Average per vessel
	Vessels	Extinguishers	Vessels	Extinguishers	
D—Tank Vessels .....	3,261	12,715	326	1,272	3.90
H—Passenger Vessels .....	278	8,282	28	828	29.79
I—Cargo and misc. Vessels .....	1,609	30,674	161	3,067	19.06
I—A—MODU .....	81	4,222	8	422	52.12
K—Small Passenger Carrying 150+ PAX or 49+ Overnight .....	455	3,646	46	365	8.01
L—Offshore Supply Vessels .....	563	11,881	56	1,188	21.10
N—Dangerous Cargoes (Dry Bulk) .....	44	323	4	32	7.34
R—Nautical Schools .....	44	865	4	87	19.66
T—Small Passenger Vessels (<100 Gross Tons) ..	10,354	38,286	1,035	3,829	3.70
U—Oceanographic Vessels .....	75	1,900	8	190	25.33
Unspecified .....	464	1,601	46	160	3.45
Totals * .....	17,228	114,395	1,722	11,440	6.64

\* Totals may not sum due to rounding.

NFPA 10 certification can be obtained by either taking an online examination that lasts 2½ hours, or by attending an 8-hour seminar concluding with an examination. Upon successful completion, 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 will be accomplished through on-the-job training. We also assume that owners and operators will choose the least-costly and time-consuming means of obtaining certification. Therefore, we assume that certification will be obtained using the online method. Based on an online price quote from Fire Protection Certification Ltd,<sup>6</sup> we estimate the cost for NFPA 10 certification using the online method of certification to be \$139 per course.<sup>7</sup>

As previously discussed, information from the BLS indicates that the loaded mean hourly labor cost (wages and

benefits) is \$28 (rounded) for crew members (BLS occupation code 53–5011—Sailors and Marine Oilers). This loaded wage rate includes the hourly base wage rates of \$19.56 multiplied by a load factor of 1.43. We assume one crew member per vessel will be certified. We also anticipate that in the initial year of this rule, all vessels performing their own maintenance will have a crewmember certified. Thereafter, we anticipate that ⅓ of the affected population will have one crewmember certified each year.<sup>8</sup> Certification through online examination will cost approximately \$209 per mariner (\$139 + (2.5 hrs × \$28/hr)). The annual cost of online examination for 10 percent of the affected population is approximately \$360,000 (undiscounted) for the first year and approximately \$120,000 (undiscounted) for the recurring years.

Additionally, we anticipated 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 an inspector to verify crew member training. We assume that a person in charge of the vessel will 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 rate<sup>9</sup> of \$52 (rounded) and an estimated annual cost of this requirement to be \$3.47 per vessel (\$52 × 4 minutes ÷ 60 min/hr). 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 the present total value cost at approximately \$1.08 million discounted at 7 percent with an annualized cost of approximately \$154,000 discounted at 7 percent. Table 7 summarizes the cost impact of this rule on industry.

TABLE 7—CERTIFICATION COSTS FOR NFPA 10

Year	Certifications per year	Undiscounted costs		Total discounted costs	
		Cost of online examination	Total with recordkeeping costs	Online examination (7 percent)	Online examination (3 percent)
1 .....	1,722	\$359,898	\$365,873	\$341,938	\$355,217

<sup>6</sup> <http://www.fpcltd.com/index.html>.

<sup>7</sup> <http://train.fpcltd.com/>.

<sup>8</sup> The ⅓ 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, ⅓ 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 ⅓ of the affected population per year.

<sup>9</sup> Mean hourly wage of \$36.34 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 1.43.

TABLE 7—CERTIFICATION COSTS FOR NFPA 10—Continued

Year	Certifications per year	Undiscounted costs		Total discounted costs	
		Cost of online examination	Total with recordkeeping costs	Online examination (7 percent)	Online examination (3 percent)
2	574	119,966	121,958	106,523	114,957
3	574	119,966	121,958	99,554	111,609
4	574	119,966	121,958	93,041	108,358
5	574	119,966	121,958	86,954	105,202
6	574	119,966	121,958	81,266	102,138
7	574	119,966	121,958	75,949	99,163
8	574	119,966	121,958	70,981	96,275
9	574	119,966	121,958	66,337	93,470
10	574	119,966	121,958	61,997	90,748
Totals *		1,439,592	1,463,493	1,084,539	1,277,136
Annualized				154,414	149,719

\* Totals may not sum due to rounding.

(3) Spanner Wrench Carriage Requirement for Small Passenger Vessels

These provisions require that all subchapter K and T vessels carry a spanner wrench for each 1½ inch diameter hose installation. According to the Coast Guard’s MISLE database, there are approximately 2,613 subchapter K and T vessels with 1½ inch diameter

hose installations. The total number of 1½ inch diameter hose installations onboard the vessels is 6,645, for an average of approximately 2.5 hose installations per vessel. The individual catalogue prices of spanner wrenches indicate a cost of \$15 to \$25 each. Table 8 summarizes the vessel population and the cost of the potential distribution of spanner wrenches per vessel costs depending on the number of

1½ inch diameter hose installations. Coast Guard marine inspectors report that over 90 percent of subchapter K and T vessels already have the necessary spanner wrenches. We therefore assume that 261 vessels, or 10 percent of vessels in the affected population, will need to purchase spanner wrenches based on the number of 1½ inch diameter hose installations on board.

TABLE 8—SUMMARY OF VESSEL POPULATION AND POTENTIAL PER-VESSEL COSTS

Number of 1½"-hose installations	Total vessel count	10 Percent of affected vessels	Costs per vessel	
			Low	High
1	645	65	\$15	\$25
2	1,295	130	30	50
3	267	27	45	75
4	158	16	60	100
5	125	13	75	125
6–9	81	8	90–135	150–225
10–20	33	3	150–300	250–500
>20	9	1	300–\$750	525–\$1,250
Total *	2,613	261		

Table 9 summarizes the total costs of this requirement to industry. Although we increased the compliance period from 30 days to 180 days following the publication of the rule, we still assume the costs of this requirement to be incurred in the first year. We estimated costs for this provision based on the

average cost range of spanner wrenches to be \$20 per spanner wrench. Based on information from MISLE, there are approximately 6,645 1½ inch diameter hose installations onboard 2,613 vessels for an average of 2.5 (rounded) 1½ inch diameter hose installations per vessel. Based on an average of 2.5 hose

installations per vessel (as noted above, for cost calculation purposes in this analysis we use an average cost for the wrench of \$20), the average per vessel cost is approximately \$50 (\$20 per unit × 2.5 units per vessel).

TABLE 9—TOTAL COSTS OF SPANNER WRENCH-CARRIAGE REQUIREMENT

	Affected vessels (A)	10 Percent of count of 1½" installations (B)	Wrench costs (C)	Total* (B × C)
Spanner Wrench Price	261	665	\$20	\$13,290

\* Totals may not sum due to rounding.

Summary of Total Costs From All Provisions

The total cost of this rule stems from three provisions: (1) Installation of a sensing device for vessels using sample extraction fire detection methods; (2) the NFPA 10 certification costs for

owners and operators who wish to continue performing annual maintenance themselves; and (3) the spanner wrench carriage requirement. Table 10 summarizes the total costs for these provisions and Table 11 presents the average total discounted and annualized costs by inspection

subchapter (7 percent discount rate). Over the 10-year period of analysis, we estimate total discounted costs of these provisions to be approximately \$1.1 million and the annualized (rounded) cost at \$156,600 using a discount rate of 7 percent.

TABLE 10—ESTIMATE FOR TOTAL COSTS

Year	Undiscounted costs				Discounted costs	
	Sample extraction	NFPA 10 Certification and recordkeeping	Spanner wrenches	Undiscounted total costs	Total costs (7 percent)	Total costs (3 percent)
1	\$0	\$365,873	\$13,290	\$379,163	\$354,358	\$368,120
2	0	121,958		121,958	106,523	114,957
3	1,243	121,958		123,201	100,569	112,746
4	1,243	121,958		123,201	93,989	109,462
5	1,243	121,958		123,201	87,840	106,274
6		121,958		121,958	81,266	102,138
7		121,958		121,958	75,949	99,163
8		121,958		121,958	70,981	96,275
9		121,958		121,958	66,337	93,470
10		121,958		121,958	61,997	90,748
Totals *	3,729	1,463,493	13,290	1,480,512	1,099,809	1,293,353
Annualized					156,588	151,620

\* Totals may not sum due to rounding.

Total Costs by CFR Subchapter

As this 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 CFR subchapter

designation in Table 11. This summary aggregates the per-vessel costs based on a vessel's inspection subchapter designation. The summary in Table 11 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 1,986 vessels will incur an average annualized cost of \$79 per vessel.

TABLE 11—AVERAGE DISCOUNTED TOTAL COSTS BY INSPECTION SUBCHAPTER [7 percent]

CFR 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	205,319	29,233	326	\$90
H	Passenger Vessels >100 GT	18,585	2,646	29	91
I	Cargo Vessels	103,299	14,708	163	90
IA	MODU	5,039	717	8	90
K	Small Passenger Vessels	39,298	5,595	90	49
L	Offshore Supply Vessels	35,270	5,022	56	90
N	Dangerous Cargoes (Dry Bulk)	2,519	359	4	90
R	Nautical Schools	2,519	359	4	90
T	Small Passenger Vessels	653,951	93,108	1,252	75
U	Oceanographic Research	5,039	717	8	90
UNSPECIFIED		28,971	4,125	46	90
Totals *		1,099,809	156,588	1,986	** 79

\* Totals may not sum due to rounding.

\*\* Average across all vessels.

## Benefits

### 1. Harmonization and Compliance with International and National Standards

The benefits of the rule include harmonization and compliance with current international consensus standards, and harmonization with national industry consensus standards.

For U.S. vessels to receive SOLAS certification, they must be constructed and maintained to international SOLAS 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 SOLAS standards is necessary to prevent a vessel from being subject to potential detention by Port State Control officers. Port State Control officers 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 certain equipment and materials approved to international SOLAS standards instead of domestic standards will 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 appropriate national industry consensus standards, this rule allows 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 the same or less costly than its current counterpart in the marine market. Additionally, these provisions provide additional economic efficiencies through the expansion of markets, particularly international markets.

### 2. NFPA 10 Certification

Because of its relatively large size, the shoreside fire fighting 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 a uniform acceptable standard. 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 are 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 OSHA 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 capabilities as both a visual and audible alarm are installed. As such, the detection system reduces detection time as the sensitivity to gases, which indicates potential problems, is much more sensitive 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

The requirement for spanner wrenches ensures that the safety equipment installed onboard vessels is available for use. These requirements ensure that a 1½ 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 rule will have a significant economic impact on a substantial number of small entities. The term “small entities” comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000.

In order to determine whether this rule will have a significant impact on a substantial number of small entities, we assume the maximum potential impact any single vessel and entity will incur when estimating costs. Table 12 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 \$79. Table 11 (above) discusses the distribution of costs by CFR subchapter and we note that the annualized discounted costs (7 percent) range from approximately \$49 to \$90.

TABLE 12—ESTIMATED MAXIMUM UNDISCOUNTED FIRST YEAR COSTS

CFR subchapter designation	Description	Sample extraction costs	NFPA 10 costs	Spanner wrench costs	Totals (undiscounted)		
					Total costs	Vessel count	Cost per vessel
C .....	Uninspected Vessels ..		\$0		\$0	n/a	n/a
D .....	Tank Vessels .....		69,265		69,265	326	\$212
H .....	Passenger Vessels > 100 GT.	\$1,243	5,949		7,192	28	257
I .....	Cargo Vessels .....	2,486	34,208		36,694	161	228
IA .....	MODU .....		1,700		1,700	8	212
K .....	Small Passenger Vessels.		9,774	\$2,240	12,014	46	261
L .....	Offshore Supply Vessels.		11,898		11,898	56	212
N .....	Dangerous Cargoes (Dry Bulk).		850		850	4	212
R .....	Nautical Schools .....		850		850	4	212
T .....	Small Passenger Vessels.		219,906	11,050	230,956	1,035	223
U .....	Oceanographic Research.		1,700		1,700	8	212
UNSPECIFIED			9,774		9,774	46	212

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 the 1 percent revenue listed in table 13 below. 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 13 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 12.

TABLE 13—ESTIMATED DISTRIBUTION OF SMALL ENTITIES BY INSPECTION SUBCHAPTER

CFR Subchapter designation	Number of small entities	Average revenue	Maximum revenue	Minimum revenue	Revenue for a 1 percent 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	21,247	0
H .....	45	100,290,000	500,000,000	500,000	25,686	0
I .....	142	86,252,652	1,070,988,000	70,000	22,791	0
IA .....	16	242,016,333	1,767,445,000	390,000	21,247	0
K .....	48	5,915,538	50,000,000	110,000	26,118	0
L .....	18	4,532,613	20,000,000	150,000	21,247	0
N .....	3	27,075,000	100,000,000	500,000	21,247	0
R .....	6	849,996	1,549,979	200,000	21,247	0
T .....	1,015	12,532,100	1,000,000,000	9,000	22,315	4
U .....	8	27,500,000	50,000,000	5,000,000	21,247	0
UNSPECIFIED	347	46,920,905	1,390,835,000	2,000	21,247	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.

We classify small entities using the North American Industry Classification System (NAICS) codes for those entities that had revenue and size data. The 2,912 small entities with data are represented by 262 different NAICS codes or categories. We used the Small

Business Administration size standards for each NAICS code to determine if a business was small. We found that the top 10 NAICS categories represent about 41 percent, or 1,191 of the 2,912 small entities that we analyzed. The remaining 59 percent, or 1,721 small

entities, are represented by 252 different NAICS categories. The top 10 NAICS categories as described by the United States Census Bureau and their approximate revenues are presented in Table 14.



TABLE 14—TOP 10 NAICS CODES AND THEIR MINIMUM, MAXIMUM, AND AVERAGE REVENUE

NAICS	Description	Average revenue	Minimum revenue	Maximum revenue
487210	Scenic and Sightseeing Transportation, Water	\$1,944,343	\$50,000	\$50,000,000
488330	Navigational Services to Shipping	8,345,361	44,000	500,000,000
713990	All Other Amusement and Recreation Industries	1,102,422	36,000	69,921,582
238910	Site Preparation Contractors	32,709,859	300,000	1,767,445,000
713930	Marinas	4,630,929	78,000	50,000,000
488390	Other Support Activities for Water Transportation	18,174,058	30,000	1,390,835,000
561990	All Other Support Services	1,102,015	46,000	50,000,000
441222	Boat Dealers	10,158,095	130,000	80,000,000
336611	Ship Building and Repairing	46,894,870	99,000	500,000,000
813410	Civic and Social Organizations	2,517,346	80,000	6,308,457

The Coast Guard assumes that entities will choose to minimize revenue impacts for any given year; therefore, we estimate the revenue impact will more closely resemble the discussion presented in Table 11. However, based on the analysis presented in Tables 12 and 13, 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 rule will 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, does not represent a significant economic impact on affected small entities. Therefore, the Coast Guard certifies under 5 U.S.C. 605(b) that this rule will not have a significant economic impact on a substantial number of small entities.

*C. Assistance for Small Entities*

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996, Public Law 104–121, we offered to assist small entities in understanding this rule so that they could better evaluate its effects on them and participate in the rulemaking. The Coast Guard will not retaliate against small entities that question or complain about this rule or any policy or action of the Coast Guard.

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

*D. Collection of Information*

This final rule calls 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 rule will 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 will 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.

*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 (1,722 vessel owner/operators) will 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 Respondents:* We estimate that a Master for each of 1,722 vessels will be affected by this rule. See Table 6 for an estimated detailed description of the number of vessels affected by this requirement.

*Frequency of the Response:* We anticipate that all 1,722 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 will require certification. After the first year, we estimate that 1/3 of the affected population, or 574 crewmembers, will require new certification or re-certification. See footnote 8 above for an explanation of the assumption used in the certification for years 2 and 3. We estimate the three year average number of respondents to be 957 ((1,722 + 574 + 574)/3).

*Burden of Response:* We estimate an additional burden imposed by this rule to be 4 minutes 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 114.8 hours (4 min × 1,722 total affected population)/60 minutes). After the initial year, we anticipate that 1/3 of the affected population, 574 vessel Masters,<sup>10</sup> will be burdened with this new requirement each year. We estimate the annual burden, after the initial year, to be 38.3 hours (4 min × 574)/60 minutes). The annual cost of this burden in the initial year is estimated to be \$5,970 (114.8 hours × \$52 Vessel Masters), and after the initial year to be \$1,990 (38.3 hours × \$52 Vessel Masters). The per-vessel burden cost is estimated to be \$3.47 (\$1,990/574) (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 rule to OMB for its review of the collection of information.

You are not required to respond to a collection of information unless it displays a currently valid OMB control number. OMB has not yet completed its review of this collection. Therefore, we are not making 33 CFR 145.01 and 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; and 189.25–20 effective until OMB completes action on our information collection request, at which time we will publish a **Federal Register** notice describing OMB's action and, if OMB grants approval, notifying you when 33 CFR 145.01 and 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; and 189.25–20 take effect.

#### E. Federalism

A rule has implications for federalism under E.O. 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 E.O. 13132. Our analysis is explained in the following paragraphs.

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 rule regulates fire prevention, protection, detection, extinguishing equipment, and materials 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 E.O. 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 rule creates comprehensive regulations for fire prevention, protection, detection, extinguishing equipment, and materials 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 E.O. 13132.

Congress also granted to the Coast Guard, through delegation by the Secretary, the authority to promulgate regulations with respect to fire fighting 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 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 E.O. 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 has 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 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 E.O. 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 fire fighting equipment, including fire alarms and portable and semi-portable fire extinguishing equipment." 46 U.S.C. 4502(c)(2)(C). As this rule regulates fire prevention, protection, detection, extinguishing equipment, and materials on uninspected commercial fishing vessels, the States may not regulate within this category of equipment, therefore, this rule is consistent with the principles of federalism and preemption requirements in E.O. 13132.

Additionally, Congress specifically granted the authority to regulate artificial islands, installations, and other devices permanently or temporarily attached to the 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 rule

<sup>10</sup> As discussed above in section VII, *Regulatory Analysis*, we assume a vessel master will be responsible for filing and producing the certificate upon request.

regulates fire prevention, protection, detection, extinguishing equipment, and materials to ensure safety of life on these OCS installations, it falls within the scope of authority Congress has 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 E.O. 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, Public Law 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 rule regulates fire prevention, protection, detection, extinguishing equipment and materials 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 E.O. 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, E.O. 13132 specifically directs agencies to consult with State and local governments during the rulemaking process.

The Coast Guard invited 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 the NPRM. In accordance with Executive Order 13132, Federalism, the Coast Guard provides this federalism impact statement:

(1) There were no comments submitted by State or local governments to the Notice of Proposed Rulemaking published in the **Federal Register** on January 13, 2014 (79 FR 2254).

(2) There were no concerns expressed by State or local governments.

(3) As no concerns were expressed or comments received from State or local governments, there is no statement required to document the extent to which any concerns were met.

#### *F. Unfunded Mandates Reform Act*

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

#### *G. Taking of Private Property*

This rule will not cause a taking of private property or otherwise have taking implications under E.O. 12630 (“Governmental Actions and Interference with Constitutionally Protected Property Rights”).

#### *H. Civil Justice Reform*

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

#### *I. Protection of Children*

We have analyzed this rule under E.O. 13045 (“Protection of Children from Environmental Health Risks and Safety Risks”). This rule is not an economically significant rule and will not create an environmental risk to health or risk to safety that might disproportionately affect children.

#### *J. Indian Tribal Governments*

This rule does not have tribal implications under E.O. 13175 (“Consultation and Coordination with Indian Tribal Governments”), because it will not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal

Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

#### *K. Energy Effects*

We have analyzed this final rule under E.O. 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 E.O. 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 E.O. 13211.

#### *L. Technical Standards and 1 CFR Part 51*

The National Technology Transfer and Advancement Act, codified as a note to 15 U.S.C. 272, 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 rule incorporates by reference the following new voluntary consensus standards, which are listed and summarized below:

- ANSI/FM 3260 Approvals, American National Standard for Radiant Energy-Sensing Fire Detectors for Automatic Fire Alarm Signaling, February 2004. This standard sets performance requirements for radiant energy sensing fire detectors used for automatic fire alarm signaling.

- ASTM F1546/F1546 M—96 (Reapproved 2012), Standard Specification for Fire Hose Nozzles, approved May 1, 2012. This specification covers the material and performance requirements for adjustable-pattern water spray nozzles intended for general and marine fire fighting use.

- CGA C–6–2007, Standards for Visual Inspection of Steel Compressed Gas Cylinders, Tenth Edition. This standard covers visual inspections required to ensure that compressed gas

cylinders, including those used on ships for gaseous fire suppression systems, are in a safe working condition.

- FSS Code, International Code for Fire Safety Systems, Second Edition, 2007 Edition (Resolution MSC.98(73)). This code provides standards for design, installation, and performance of marine fire safety systems including fire detection, alarm, and extinguishing systems.

- 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition. This code sets forth fire test procedures for testing, evaluating and approving products used as the materials of construction of vessels.

- IEC 60092–504:2001(E), Electrical Installations in Ships—Part 504: Special Features—Control and Instrumentation, Third edition, March 2001. This 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.

- IMO Resolution A.653(16), Recommendation on Improved Fire Test Procedures for Surface Flammability of Bulkhead, Ceiling and Deck Finish Materials, adopted on 19 October 1989. This resolution specifies a procedure for measuring fire characteristics of bulkhead, ceiling and deck finish materials for characterizing their flammability and resultant suitability for shipboard use.

- IMO Resolution A.753(18), Guidelines for the Application of Plastic Pipes on Ships, adopted on 4 November 1993. This resolution sets forth material design properties, performance criteria, and test methods for plastic pipe used in vessels.

- IMO Resolution A.754(18), Recommendation on Fire Resistance Tests for “A”, “B” and “F” Class Divisions, adopted 4 November 1993. This resolution sets forth the fire test procedures for determining the acceptability of products for use as parts of fire resistive decks, bulkheads, etc. in vessels.

- IMO Resolution A.1021(26), Code on Alerts and Indicators, 2009, adopted on 2 December 2009. This code provides general design guidance for shipboard alarms and indicators including information on type, location and priority of alarms and components.

- IMO Resolution MSC.313(88), Amendments to the Guidelines for the Application of Plastic Pipes on Ships, adopted 26 November 2010. This resolution sets forth material design properties, performance criteria, and

test methods for plastic pipe used in vessels.

- International Convention for the Safety of Life at Sea (SOLAS), as amended, Consolidated Edition, 2009, including Erratum. This convention sets forth uniform principles and rules for the promotion of maritime safety, including passive and active elements of ship construction and equipment for fire protection, detection, and extinction.

- ISO/IEC 17025:2005(E), International Standard: General requirements for the competence of testing and calibration laboratories, Second edition, 15 May 2005. This standard sets forth management and technical requirements for the accreditation of testing and calibration laboratories.

- NFPA 12A, Standard on Halon 1301 Fire Extinguishing Systems, 2009 Edition, effective July 18, 2008. This standard provides guidance in purchasing, designing, installing, testing, inspecting, approving, listing, operating, maintaining, decommissioning and removing halogenated agents extinguishing systems such as the legacy Halon 1301 systems used on some ships.

- NFPA 1964, Standard for Spray Nozzles, 2008 Edition, effective December 31, 2007. This standard covers the material and performance requirements for adjustable-pattern water spray nozzles intended for general and marine fire fighting use.

- UL 8, Standard for Safety for Water Based Agent Fire Extinguishers, Sixth Edition, dated February 28, 2005, as amended through July 27, 2010. This standard covers the construction, performance and testing, exclusive of performance during fire tests, of portable foam-type fire extinguishers.

- UL 154, Standard for Safety for Carbon-Dioxide Fire Extinguishers, Ninth Edition, dated February 28, 2005, as amended through November 8, 2010. This standard covers the construction, performance and testing, exclusive of performance during fire tests, of portable carbon-dioxide fire extinguishers.

- UL 162, Standard for Safety for Foam Equipment and Liquid Concentrates, Seventh Edition, dated March 30, 1994, as amended through October 10, 2014. This standard sets forth requirements and tests for the approval of fire fighting foam equipment and liquid concentrates.

- UL 299, Standard for Safety for Dry Chemical Fire Extinguishers, Eleventh Edition, dated April 13, 2012. This standard covers the construction, performance and testing, exclusive of

performance during fire tests, of portable dry chemical fire extinguishers.

- UL 464, Standard for Safety for Audible Signaling Appliances, Ninth Edition, dated April 14, 2009, as amended through April 16, 2012. This standard covers the construction, performance and testing of electrically and electronically operated bells, buzzers, horns, and similar audible signal appliances for fire protective signaling systems.

- UL 626, Standard for Safety for Water Fire Extinguishers, Eighth Edition, dated February 28, 2005, as amended through November 8, 2010. This standard covers the construction, performance and testing, exclusive of performance during fire tests, of portable water fire extinguishers.

- UL 711, Standard for Safety for Rating and Fire Testing of Fire Extinguishers, Seventh Edition, dated December 17, 2004, as amended through April 28, 2009. This standard covers rating, and performance during fire tests, of fire extinguishers intended for use on various classes of fires.

- UL 1480, Standard for Safety for Speakers for Fire Alarm, Emergency, and Commercial and Professional Use, Fifth Edition, dated January 31, 2003, as amended through June 23, 2010. This standard covers the construction and performance of speakers for use in, among other things, fire alarm systems.

- UL 1971, Standard for Safety for Signaling Devices for the Hearing Impaired, Third Edition, approved November 29, 2002, as amended through October 15, 2008. This standard covers the construction and performance of emergency signaling devices for the hearing impaired.

- UL 2129, Standard for Safety for Halocarbon Clean Agent Fire Extinguishers, Second Edition, dated February 28, 2005, as amended through March 30, 2012. This standard covers the construction, performance and testing, exclusive of performance during fire tests, of portable halocarbon agent fire extinguishers.

This final rule also incorporates by reference the following updated voluntary consensus standards:

- NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, effective December 5, 2009. This standard applies to the selection, installation, inspection, maintenance, recharging, and testing of portable fire extinguishers.

- NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition, effective August 26, 2009. This standard provides requirements for the design and installation of automatic fire sprinkler systems.

- NFPA 70, National Electronic Code, 2011 Edition. This standard addresses the installation of electrical conductors, equipment, and raceways; signaling and communications conductors, equipment, and raceways; and optical fiber cables and raceways in commercial, residential, and industrial occupancies.

- NFPA 72, National Fire Alarm and Signaling Code, 2010 Edition, effective August 26, 2009. This standard covers the application, installation, location, performance, inspection, testing, and maintenance of fire alarm systems and their components.

- UL 19, Standard for Safety for Lined Fire Hose and Hose Assemblies, Twelfth Edition, approved November 30, 2001. This standard covers the construction, performance, and testing of firehoses.

- UL 38, Standard for Safety for Manual Signaling Boxes for Fire Alarm Systems, Eighth Edition, dated July 3, 2008, as amended through December 11, 2008. This standard covers the construction, performance, and testing of manual signaling boxes used in fire alarm systems.

- UL 268, Standard for Safety for Smoke Detectors for Fire Alarm Systems, Sixth Edition, dated August 14, 2009. This standard covers the construction, performance, and testing of smoke detectors used in fire alarm and suppression systems.

- UL 521, Standard for Safety for Heat Detectors for Fire Protective Signaling Systems, Seventh Edition, dated February 19, 1999, as amended through October 3, 2002. This standard covers the construction, performance, and testing of heat detectors used in fire alarm and suppression systems.

- UL 864, Standard for Safety for Control Units and Accessories for Fire Alarm Systems, Ninth Edition, dated September 30, 2003, as amended through January 12, 2011. This standard covers the construction, performance, and testing of control units used in fire alarm systems.

Consistent with 1 CFR part 51 incorporation by reference provisions, this material is reasonably available. Interested persons have access to it through their normal course of business, may purchase it from organizations identified in 33 CFR 140.7 and 149.3, and 46 CFR 25.01–3, 31.01–2, 32.01–1, 34.01–15, 56.01–2, 71.25–3, 76.01–2, 91.25–7, 92.01–2, 95.01–2, 108.101, 114.600, 125.180, 147.7, 159.001–4, 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, or may view a copy by the means we have identified in those sections.

#### *M. Coast Guard Authorization Act*

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 rule revises the standards for fire prevention, protection, detection, extinguishing equipment, and materials 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), by employing the most recent industry consensus standards, as necessary and appropriate.

#### *N. Environment*

We have analyzed this final rule under Department of Homeland Security Management Directive 023–01 and Commandant Instruction M16475.ID (National Environmental Policy Act Implementing Procedures and Policy For Considering Environmental Impacts Manual), which guide the Coast Guard in complying with the National Environmental Policy Act of 1969, 42 U.S.C. 4321–4370f, and have concluded that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. This rule involves design and approval standards for fire protection, detection, extinguishing equipment, and materials and falls under section 2.B.2, figure 2–1, paragraphs (34)(a), (d), and (e) of the Instruction, and under Section 6(a) of the “Appendix to National Environmental Policy Act: Coast Guard Procedures for Categorical Exclusions, Notice of Final Agency Policy” as published in the **Federal Register**, 67 FR 48243, July 23, 2002. These paragraphs exempt regulations which are editorial or procedural, concern the inspection and equipping of vessels, involve equipment approval and carriage requirements, and vessel operation safety standards. An environmental analysis checklist and a categorical

exclusion determination are available in the docket where indicated under **ADDRESSES**.

#### **List of Subjects**

##### *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, Incorporation by reference, 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, Marine safety, Reporting and recordkeeping requirements, Vessels.

##### *46 CFR Part 28*

Alaska, Fire prevention, Fishing vessels, 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*

Reporting and recordkeeping requirements, Incorporation by reference, Vessels.

*46 CFR Part 70*

Marine safety, Passenger vessels, Reporting and recordkeeping requirements.

*46 CFR Part 71*

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

*46 CFR Part 72*

Fire prevention, Incorporation by reference, 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*

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*

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

*46 CFR Part 115*

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

*46 CFR Part 116*

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

*46 CFR Part 118*

Fire prevention, Incorporation by reference, 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, Incorporation by reference, 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*

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

*46 CFR Part 176*

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

*46 CFR Part 177*

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

*46 CFR Part 181*

Fire prevention, Incorporation by reference, 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*

Marine safety, Incorporation by reference, Oceanographic research vessels.

*46 CFR Part 189*

Marine safety, Incorporation by reference, 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 amends 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, 115, 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.

■ 2. Amend § 140.3 by adding, at the end of the section, a sentence to read as follows:

**§ 140.3 Applicability.**

\* \* \* 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 under 5 U.S.C. 552(a) and 1 CFR part 51. All approved material is available for inspection at the U.S. Coast Guard, Office of Design and Engineering Standards (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](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, <https://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(b).

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

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

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

(5) ANSI Z88.2-1980, Practices for Respiratory Protection, IBR approved for § 142.39(a) through (c).

(6) ANSI Z89.1-1981, Safety Requirements for Industrial Head Protection, IBR approved for § 142.30(a) and (b).

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

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

(2) [Reserved]

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

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, effective December 5, 2009, 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 of this chapter) as amended here:

(1) Certification or licensing by a 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 has 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;

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

■ c. Add paragraphs (c) and (d); and

■ d. Revise table 145.10(a).

The revisions and additions 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
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Safety Areas:

TABLE 145.10(a)—PORTABLE AND SEMI-PORTABLE EXTINGUISHERS—Continued

Space	Minimum required rating	Quantity and location
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.
<i>Accommodations:</i>		
Sleeping accommodations .....	2-A .....	1 in each sleeping accommodation space outfitted for 4 or more persons.
<i>Service Spaces:</i>		
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.
<i>Machinery Spaces:</i>		
Gas-fired boilers .....	40-B .....	2 required.
	160-B .....	1 required. <sup>1</sup>
Oil-fired boilers .....	40-B .....	2 required.
	160-B .....	2 required. <sup>1</sup>
Internal combustion or gas turbine engines .....	40-B .....	1 for each engine. <sup>2</sup>
Electric motors or generators of open type .....	40-B:C .....	1 for each 2 motors or generators. <sup>3</sup>

<sup>1</sup> Not required where a fixed extinguishing system is installed.

<sup>2</sup> When 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.

<sup>3</sup> Small 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 August 22, 2016.**

(a) Vessels contracted for prior to August 22, 2016 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 section, a 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 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-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](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, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, effective December 5, 2009, IBR approved for § 149.408(a) through (d).

(2) [Reserved]

■ 13. Amend § 149.403 as follows:

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

The revised section heading reads as follows:

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

\* \* \* \* \*

■ 14. Revise § 149.404 to read as follows:

**§ 149.404 Can I use fire fighting equipment that is not Coast Guard approved?**

(a) A deepwater port may use fire fighting 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 chapter I, 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 a 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 has 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
(1) <i>Safety Areas</i>		
(i) Communicating corridors .....	2-A .....	One in each main corridor or stairway not more than 150 ft apart.
(ii) Radio room .....	20-B:C .....	One outside or near each radio room exit.
(2) <i>Accommodation Spaces</i>		
(i) Sleeping quarters .....	2-A .....	One in each sleeping space that fits more than four persons.
(3) <i>Service Spaces</i>		
(i) Galleys .....	40-B:C .....	One for each 2,500 sq ft or fraction thereof, for hazards involved.
(ii) Storerooms .....	2-A .....	One for each 2,500 sq ft or fraction thereof, located near each exit, either inside or outside the space.
(iii) Paint room .....	40-B .....	One outside each paint room exit.
(4) <i>Machinery Spaces</i>		
(i) Gas-fired boilers .....	40-B:C .....	Two.
	160-B .....	One. <sup>1</sup>
(ii) Oil-fired boilers .....	40-B:C .....	Two.
	160-B .....	Two. <sup>1</sup>
(iii) Internal combustion or gas turbine engines .....	40-B .....	One for each engine. <sup>2</sup>
(iv) Open electric motors and generators .....	40-B:C .....	One for each of two motors or generators. <sup>3</sup>
(5) <i>Helicopter Areas</i>		
(i) Helicopter landing decks .....	160-B .....	One at each access route.
(ii) Helicopter fueling facility .....	160-B .....	One at each fuel transfer facility. <sup>4</sup>

<sup>1</sup> Not required if a fixed system is installed.

<sup>2</sup> If 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.

<sup>3</sup> Small electrical appliances, such as fans, are exempt.

<sup>4</sup> Not 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 August 22, 2016.**

Vessels constructed for prior to August 22, 2016 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. 2103, 3306, 4102, 4302; Department of Homeland Security Delegation No. 0170.1(II)(77), (92)(a), 92(b).

■ 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 by the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. All approved material is available for inspection at the U.S. Coast Guard, Office of Design and Engineering Standards (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](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(b).

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

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

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

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, effective December 5, 2009, IBR approved for § 25.30–10(a) through (d).

(2) NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition, effective August 26, 2009, IBR approved for § 25.30–15(c).

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

(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 1, 1989, IBR approved for § 25.35–1.

(2) [Reserved]

(e) UL (formerly Underwriters Laboratories), 12 Laboratory Drive, Research Triangle Park, NC 27709, 919–549–1400, <http://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 August 22, 2016.

(b) Vessels contracted for prior to August 22, 2016 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 a 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 has 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  $\frac{1}{4}$  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. Revise § 25.30–15 to read as follows:

**§ 25.30–15 Fixed fire extinguishing systems.**

(a) When a fixed fire extinguishing system is installed, it must be a type approved or accepted by the Commandant (CG–ENG–4) or the Commanding Officer, U.S. Coast Guard Marine Safety Center.

(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.

(c) 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 paragraph (a)(3);

■ 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) introductory text, remove the word “shall” and add, in its place, the word “must”; and remove the words “fire-extinguishing” and add, in their place, the words “fire extinguishing”;

■ 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 semiportable”; 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 “Type 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); and

■ p. In paragraphs (d)(1) and (2), remove the word “shall” and add, in its place, the word “must”.

The additions read as follows:

**§ 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 August 22, 2016.**

Vessels contracted for prior to August 22, 2016 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. Add § 27.103 to subpart A to read as follows:

**§ 27.103 Preemption.**

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

■ 28. Amend § 27.203 as follows:

■ a. Redesignate the introductory text and paragraphs (a),(b),and (c) as (a) introductory text and (a)(1) through (3), respectively;

■ b. Remove the word “fire-detection” wherever it appears and add, in its place, the words “fire detection”;

■ 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 (5) as (a)(4)(i) through (v), respectively;

■ e. Redesignate paragraphs (e) through (g) as paragraphs (a)(5) through (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 remove the words “paragraphs (a) through (f)” and add, in their place, the words “paragraphs (a) introductory text and (a)(1) through (a)(6)”; 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; and

(2) The system and units remain functional as intended.

**§ 27.303 [Amended]**

■ 29. In § 27.303(b)(1), remove the text “B–V semi-portable fire-extinguishing system” and add, in its place, the text “160–B or 100 lb. CO<sub>2</sub> extinguisher, regardless of rating.”.

**§ 27.305 [Amended]**

■ 30. In § 27.305(a)(2), remove the text “B–V semi-portable fire-extinguishing system” and add, in its place, the text “160–B or 100 lb. CO<sub>2</sub> extinguisher, regardless of rating.”.

**PART 28—REQUIREMENTS FOR COMMERCIAL FISHING INDUSTRY VESSELS**

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

**Authority:** 46 U.S.C. 3316, 4502, 4505, 4506, 6104, 8103, 10603; Department of Homeland Security Delegation No. 0170.1.

■ 32. 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; and  
 (2) The system and units remain functional as intended.

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

■ 33. Amend § 28.160 as follows:  
 ■ a. Add paragraphs (c), (d), and (e); 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 rating	Quantity and location
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.

■ 34. Amend § 28.325 as follows:

- a. Revise the section heading;
- b. In paragraph (a), remove the words “, subpart 76.33”; and
- c. Add paragraph (c).

The revision and addition 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.

■ 35. Amend § 28.830 as follows:

- a. Revise the section heading;
- 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 “§ 76.33 of this chapter” and add, in its place, the text “46 CFR part 76”; and
- c. Add paragraph (c).

The revision and addition 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**

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

**Authority:** 46 U.S.C. 2103, 3306, 3703; Department of Homeland Security Delegation No. 0170.1(II)(92)(a), (92)(b).

■ 37. Amend § 30.01–1 to remove the designation “(a)” and to add, at the end of the section, a sentence 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**

■ 38. 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.

■ 39. Add § 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. All approved material is available for inspection at the U.S. Coast Guard, Office of Design and Engineering Standards (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\\_](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, 617-770-3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, effective December 5, 2009, IBR approved for § 31.10-18(a).

(2) [Reserved]

■ 40. Revise § 31.10-18 to read as follows:

**§ 31.10-18 Fire fighting 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 specified in paragraphs (a)(1) through (4) of this section.

(1) Certification or licensing by a 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 has 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. <sup>1</sup>

<sup>1</sup> Cylinders 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**

■ 41. 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.

■ 42. Add paragraph (d) to § 32.01-1 to read as follows:

**§ 32.01-1 Incorporation by reference.**

\* \* \* \* \*

(d) International Maritime Organization (IMO) Publishing, 4 Albert

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

(1) International Convention for the Safety of Life at Sea (SOLAS), as amended, Consolidated Edition, 2009, including Erratum, IBR approved for § 32.56-1(b).

(2) [Reserved]

■ 43. Revise § 32.56-1(b) to read as follows:

**§ 32.56-1 Application.**

\* \* \* \* \*

(b) Vessels meeting the structural fire protection requirements of SOLAS, Chapter II-2, Regulations 5, 6, 8, 9, and 11 (incorporated by reference, see § 32.01-1), may be considered equivalent to the provisions of this subpart.

**PART 34—FIRE FIGHTING EQUIPMENT**

■ 44. 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.

■ 45. Revise the heading to part 34 to read as set forth above.

■ 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 chapter I, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105; and

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

■ 46. Revise § 34.01–15(c)(1) to read as follows:

**§ 34.01–15 Incorporation by reference.**

\* \* \* \* \*

(c) \* \* \*

(1) NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition, effective August 26, 2009, IBR approved for § 34.30–1.

\* \* \* \* \*

■ 47. 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).

■ 48. 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 August 22, 2016.

(b) Vessels contracted for prior to August 22, 2016 but on or after January 1, 1962, must meet the requirements of § 34.50–80.

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

**§ 34.50–5 [Removed]**

■ 49. Remove § 34.50–5.

■ 50. 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.

(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
<b>Safety Areas</b>				
1 required .....	20–B:C .....	Wheelhouse and chartroom area .....	.....	None required.
1 required in the vicinity of the exit.	20–B:C <sup>1</sup> .....	Radio room .....	.....	None required.
<b>Accommodation Areas</b>				
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.
<b>Service Areas</b>				
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.

TABLE 34.50–10(a)—PORTABLE AND SEMI-PORTABLE EXTINGUISHERS—Continued

Tank ships		Area	Tank barges	
Quantity and location	Minimum required rating		Minimum required rating	Quantity and location
<b>Machinery Area <sup>2</sup></b>				
2 required <sup>3</sup> .....	40–B .....	Spaces containing oil fired boilers, either main or auxiliary, or any fuel oil units subject to the discharge pressure of the fuel oil service pump.	40–B .....	1 required. <sup>12</sup>
1 required .....	and 160–B <sup>4</sup>	Spaces containing internal combustion or gas turbine propulsion machinery.	.....	None required.
1 required for each 1,000 brake horsepower; not less than 2, not more than 6 <sup>5</sup> .	40–B .....			
1 required <sup>6,7</sup> .....	and 120–B.	Auxiliary spaces containing internal combustion or gas turbine units.	40–B .....	1 required in the vicinity of the exit. <sup>7,9,12</sup>
1 required in the vicinity of the exit <sup>7</sup> .	40–B .....	Auxiliary spaces containing emergency generators.	.....	None required.
1 required in the vicinity of the exit <sup>8</sup> .	40–B:C .....			
<b>Cargo Areas</b>				
1 required in the lower pumproom.	40–B .....	Pumprooms .....	40–B .....	1 required in the vicinity of the exit. <sup>9,12</sup>
None required .....	.....	Cargo tank area .....	40–B .....	2 required. <sup>10,12,13</sup>
			160–B .....	1 required. <sup>9,11</sup>
<b>Spare Units</b>				
10 percent of required units rounded up.	2–A .....	.....	2–A .....	10 percent of required units rounded up.
10 percent of required units rounded up.	40–B:C .....	.....	40–B:C .....	10 percent of required units rounded up.

<sup>1</sup> Vessels not on an international voyage may substitute two 5–B:C rated extinguishers.  
<sup>2</sup> A 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 (15.25 meters) walking distance from any point in all main machinery operating spaces. These extinguishers need *not* be in addition to other required extinguishers.  
<sup>3</sup> Vessels of fewer than 1,000 GT require 1.  
<sup>4</sup> Vessels of fewer than 1,000 GT may substitute 1 120–B:C.  
<sup>5</sup> Only 1 required for vessels under 65 ft in length.  
<sup>6</sup> If 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.  
<sup>7</sup> Not required on vessels of fewer than 300 GT if the fuel has a flashpoint higher than 110 °F.  
<sup>8</sup> Not required on vessels of fewer than 300 GT.  
<sup>9</sup> Not required if fixed system installed.  
<sup>10</sup> If no cargo pump on barge, only one 40–B:C required.  
<sup>11</sup> Manned barges of 100 GT and over only.  
<sup>12</sup> Not required on unmanned barges except during the transfer of cargo, or operation of barge machinery or boilers when the barge is not underway.  
<sup>13</sup> An 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]**

- 51. Remove § 34.50–15.
- 52. Add § 34.50–80 to read as follows:

**§ 34.50–80 Location and number of fire extinguishers required for vessels constructed prior to August 22, 2016–TB/ALL.**

Vessels contracted for prior to August 22, 2016, 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**

- 53. 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.

- 54. Amend § 50.01–15 by adding 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**

- 55. 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.

■ 56. In § 56.01–2—

- a. Revise paragraph (h)(1); and
- b. Add paragraph (h)(2).

The addition and revision read as follows.

**§ 56.01–2 Incorporation by reference.**

\* \* \* \* \*

(h) \* \* \*

(1) Resolution A.753(18), Guidelines for the Application of Plastic Pipes on Ships, adopted on 4 November 1993 (“IMO Resolution A.753(18)”), IBR approved for 56.60–25(a).

(2) Resolution MSC.313(88), Amendments to the Guidelines for the Application of Plastic Pipes on Ships, adopted 26 November 2010 (“IMO Resolution MSC.313(88)”), IBR approved for § 56.60–25(a).

\* \* \* \* \*

■ 57. In § 56.60–25—

- a. Revise paragraph (a);
- b. Revise paragraph (b)(5); and
- c. In paragraphs (c) and (d), remove the word “shall” and add, in its place, the word “must”.

The revisions read as follows.

**§ 56.60–25 Nonmetallic materials.**

(a) Plastic pipe installations must be in accordance with IMO Resolution A.753(18) and IMO Resolution MSC.313(88) (both 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) and IMO Resolution MSC.313(88) 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) Pipe that is to be used for potable water must bear the appropriate certification mark of a nationally-recognized, ANSI-accredited third-party certification laboratory. 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 § 56.97–40(a)(1) through (c) that contain plastic piping must be tested to 1.5 MAWP as required by § 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)) must have the same fire endurance as the metallic shell valve. Where the shell valve and the plastic pipe are in the same unmaned space, the valve must be operable from above the freeboard deck.

(7) Pipe that is to be used for potable water must bear the appropriate certification mark of a nationally-recognized, ANSI-accredited, third-party certification laboratory.

(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.

\* \* \* \* \*

**PART 70—GENERAL PROVISIONS**

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

**Authority:** 46 U.S.C. 2103, 3306, 3703; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277, sec. 1–105; Department of Homeland Security Delegation No. 0170.1(II)(92)(a), (92)(b).

■ 59. Amend § 70.01–1 by adding, at the end of the section, a sentence to read as follows:

**§ 70.01–1 Purpose of regulations.**

\* \* \* 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**

■ 60. 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.

■ 61. Add § 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. 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](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, 617–770–3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition,



effective December 5, 2009, IBR approved for § 71.25–20(a).

(2) [Reserved]

§ 71.25–20 [Amended]

- 62. Amend § 71.25–20 as follows:
    - a. Remove the word “shall” wherever it appears and add, in its place, the word “must”;
    - b. Revise section heading and paragraphs (a) introductory text and (a)(1).
    - c. In paragraph (a)(3), remove the word “detecting” wherever it appears and add, in its place, the word “detection”; and
    - e. In paragraph (a)(4), remove the words “fire hose” and add, in their place, the word “firehose”.
- The revisions read as follows:

§ 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 the owner, operator, person-in-charge, or a designated member of the crew.

\* \* \* \* \*

PART 72—CONSTRUCTION AND ARRANGEMENT

■ 63. 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.

■ 64. Add § 72.01–2 to read as follows:

§ 72.01–2 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. All approved material is available for inspection at the U.S. Coast Guard, Office of Design and Engineering Standards (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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

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

(1) International Convention for the Safety of Life at Sea (SOLAS), as amended, Consolidated Edition, 2009, including Erratum, IBR approved for § 72.05–1(c).

(2) [Reserved]

■ 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, 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.

(c) Vessels meeting the structural fire protection requirements of SOLAS, Chapter II–2, Regulations 5, 6, 8, 9, and 11 (incorporated by reference, see § 72.01–2), 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 (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. In § 76.01–2—

- a. Redesignate paragraph (c) and (d) as (d) and (e);
- b. Add new paragraph (c);

■ c. Revise redesignated paragraph (d)(1); and

■ d. Add new paragraph (d)(2);

The additions and revision read as follows.

§ 76.01–2 Incorporation by reference.

\* \* \* \* \*

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

(1) International Convention for the Safety of Life at Sea (SOLAS), as amended, Consolidated Edition, 2009, including Erratum, IBR approved for §§ 76.27–1(b) and 76.27–70 introductory text, (a) through (d) and (j).

(2) FSS Code, International Code for Fire Safety Systems, Second Edition, 2007 Edition (Resolution MSC.98(73)), IBR approved for §§ 76.27–1(b) and 76.27–70 introductory text, and (e) through (j).

(3) Resolution A.1021(26), Code on Alerts and Indicators, 2009, adopted on 2 December 2009 (“IMO Resolution A.1021(26)”), IBR approved for § 76.27–70(j).

(d) \* \* \*

(1) NFPA 13–1996, Standard for the Installation of Sprinkler Systems, IBR approved for § 76.25–90.

(2) NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition, effective August 26, 2009, IBR approved for § 76.25–1.

\* \* \* \* \*

■ 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 chapter I, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105; and

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

■ 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 subpart 76.27 of this part:

- (1) Any vessel on an international voyage;
- (2) Any vessel of more than 150 feet (45.72 meters) in length having sleeping accommodations for passengers; and
- (3) Any vessel of 150 feet (45.72 meters) 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 through 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 subpart 76.27 of this part.

(b) [Reserved]

**§ 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
<b>Safety Areas</b>	
Wheelhouse or fire-control room .....	None required. <sup>1</sup>
Stairway and elevator enclosures .....	None required. <sup>1</sup>
Communication corridors .....	None required. <sup>1</sup>
Lifeboat embarkation and lowering stations .....	None required.
Radio room .....	None required. <sup>1</sup>
<b>Accommodations</b>	
Staterooms, toilet spaces, isolated pantries, etc .....	None required. <sup>1</sup>
Offices, lockers, and isolated storerooms .....	None required. <sup>1</sup>
Public spaces .....	None required. <sup>1</sup>
Open decks or enclosed promenades .....	None required.
<b>Service Spaces</b>	
Galleys .....	None required. <sup>1</sup>
Main pantries .....	None required. <sup>1</sup>
Motion picture booths and film lockers .....	None required. <sup>1,2</sup>
Paint and lamp rooms .....	Carbon dioxide. <sup>3</sup>
Inaccessible baggage, mail, and specie rooms and storerooms .....	Carbon dioxide. <sup>3</sup>
Accessible baggage, mail, and specie rooms and storerooms .....	None required. <sup>1</sup>
Refrigerated storerooms .....	None required.
Carpenter, valet, photographic, and printing shops, sales rooms, etc .....	None required. <sup>1</sup>
<b>Machinery spaces</b>	
Coal fired boilers: Bunker and boiler space .....	None required. <sup>1</sup>
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. <sup>4</sup>
Internal combustion or gas turbine propelling machinery spaces .....	Carbon dioxide. <sup>5</sup>
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). <sup>6</sup>
Auxiliary spaces, internal combustion or gas turbine .....	Carbon dioxide. <sup>7</sup>
Auxiliary spaces, electric motors or generators .....	None required.
Auxiliary spaces, steam .....	None required.
Trunks to machinery spaces .....	None required.
Fuel tanks .....	None required. <sup>8</sup>
<b>Cargo Spaces</b>	
Inaccessible during voyage (combustible cargo), including trunks (excluding tanks) .....	Carbon dioxide. <sup>3</sup>
Accessible during voyage (combustible cargo) .....	Automatic or manual sprinkler system.
Vehicular deck (except where no overhead deck is 30 feet (9.14 meters) in length or less) .....	Manual sprinkler.
Cargo oil tanks .....	Carbon dioxide or foam. <sup>3</sup>

TABLE 76.05–20—REQUIRED FIXED EXTINGUISHING SYSTEMS—Continued

Space	Fixed extinguishing systems
Specially suitable for vehicles .....	Carbon dioxide, automatic or manual sprinkler system.

<sup>1</sup> Vessels 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.

<sup>2</sup> Sprinkler heads may be attached to a potable water system provided electrical or pneumatic detecting is installed.

<sup>3</sup> On 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.

<sup>4</sup> Protection of auxiliary boilers, fuel oil units, valves, and manifolds not required on vessels contracted for prior to November 19, 1952.

<sup>5</sup> Not 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.

<sup>6</sup> Not required on vessels contracted for prior to November 19, 1952.

<sup>7</sup> Not 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.

<sup>8</sup> Where 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 1½-inch hose and ⅝-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**

(a) The size of fire hydrants, hoses, and nozzles, and the length of hose required, must be as specified in Table 76.10–5(a) of this subpart.

(b) On vessels of more than 1,500 gross tons, the 2½-inch hose and hydrants specified in Table 76.10–5(a) may be replaced with 1½-inch hose and hydrants as follows:

(1) The hydrants in interior locations may have wye connections for 1½-inch hose. In these cases, the hose must be 75 feet (22.86 meters) 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 1½-inch outlets, each with a 1½-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 shoreside 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 that enable 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 accessible to the passengers or crew while the vessel is being navigated, other than main machinery spaces and cargo holds, may be reached with at least two streams of water from separate outlets, at least one of which must be from a single length of 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 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 spaces 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 1½-in

(38-mm) and 2½-in (64-mm) hose sizes, *i.e.*, 9 threads per inch for a 1½-in hose, and 7½ threads per inch for a 2½-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 UL as a lined firehose is accepted as conforming to this requirement.

■ 75. Revise § 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 and reserve §§ 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 July 22, 2021.

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, apply to all installations contracted for on or after July 22, 2021. Installations contracted for on or after November 19, 1952, and prior to July 22, 2021 must meet the requirements of § 76.27–80. Installations contracted for prior to November 19, 1952, must meet the requirements of § 76.27–90.

(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; or

(2) SOLAS Chapter II–2, Regulation 7 and FSS Code Chapter 9 (both

incorporated by reference, see § 76.01–2) as detailed in § 76.27–70.

**§ 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 (45.72 meters) 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 chapter I, 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 chapter I, 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 or wheelhouse tops, which are easily communicable with the area of the fire detection 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 (both incorporated by reference, see § 76.01–2) as allowed by § 76.27–1(b)(2), 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).

**§ 76.27-80 Installations contracted for on or after November 19, 1952 and prior to July 22, 2021.**

Installations contracted for on or after November 19, 1952 and prior to July 22, 2021, 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 prone to physical damage, the detector(s) must be suitably protected.

(2) Unless specifically approved otherwise, every point on the overhead of a protected space must be within 10 feet (3.05 meters) 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 feet (45.72 meters) 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 integrated with the manual alarm system.

(5) All wiring and electrical circuits and equipment must meet the applicable requirements of 46 CFR chapter I, 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
<b>Safety Areas</b>	
Wheelhouse or fire-control room .....	None required. <sup>1</sup>
Stairway and elevator enclosures .....	None required. <sup>1</sup>
Communication corridors .....	None required. <sup>1</sup>
Lifeboat embarkation and lowering stations .....	None required.
Radio room .....	None required. <sup>1</sup>
<b>Accommodations</b>	
Staterooms, toilet spaces, isolated pantries, etc .....	None required. <sup>1</sup>
Offices, lockers, and isolated storerooms .....	Electric, pneumatic, or automatic sprinkling. <sup>1</sup>
Public spaces .....	None required with 20-minute patrol. Electric, pneumatic, or automatic sprinkling with 1 hour patrol. <sup>1</sup>
Open decks or enclosed promenades .....	None required.
<b>Service Spaces</b>	
Galleys .....	None required. <sup>1</sup>
Main pantries .....	None required. <sup>1</sup>

TABLE 76.27–80—INSTALLATIONS—Continued

Space	Detecting systems
Motion picture booths and film lockers .....	Electric, pneumatic, or automatic sprinkling. <sup>1 2</sup>
Paint and lamp rooms .....	Smoke detecting. <sup>3</sup>
Inaccessible baggage, mail, and specie rooms and storerooms .....	Smoke detecting. <sup>3</sup>
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.
<b>Machinery Spaces</b>	
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.
<b>Cargo Spaces</b>	
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 (9.14 meters) in length or less).	None required.
Cargo oil tanks .....	None required.
Specially suitable for vehicles .....	Smoke detecting, electric, pneumatic or automatic sprinkling.

<sup>1</sup> Vessels 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.

<sup>2</sup> Sprinkler heads may be attached to a sanitary system provided electrical or pneumatic detecting is installed.

<sup>3</sup> On 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 insofar as is reasonable and practicable.

(b) [Reserved]

**Subpart 76.30—Pneumatic Fire Detection System, Details**

■ 78. Revise the heading of subpart 76.30 to read as set forth above.

■ 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 July 22, 2021. Installations contracted for prior to November 19, 1952, must meet the requirements of § 76.30–90.

(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”.

■ 81. Revise § 76.30–10 to read as follows:

**§ 76.30–10 Location and spacing of tubing.**

(a) The tubing must be located on the overhead or within 12 inches of the overhead on the bulkheads. Where liable to physical damage, the tubing must be suitably protected.

(b) In each enclosed space or separate room there must be exposed at least 5 percent of the total length of tubing in that circuit, but in no case may the amount be less than 25 feet.

(c) No spot on the overhead of a protected space may be more than 12 feet from the nearest point of tubing. Where beams or girders extend below the ceiling, or where the ceiling is installed at more than one level, the tubing must be located so as to be most effective.

**§ 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”.

#### Subpart 76.33—Smoke Detection System, Details

■ 84. Revise the heading of subpart 76.33 to read as written 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, apply to all installations contracted for on or after November 19, 1952, and prior to July 22, 2021. 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 July 22, 2021.

##### § 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. Amend § 76.33–10 as follows:

■ a. In paragraphs (a) and (c), remove the word “shall” wherever it appears and add, in its place, the word “must”.

■ b. In paragraph (b), remove the word “shall” and add, in its place, the word “may”.

##### § 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”;

■ 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”, and remove the word “detecting” wherever it appears and add, in its place, the word “detection”;

■ c. In paragraphs (b) and (e), remove the word “detecting” wherever it appears and add, in its place, the word “detection”;

■ d. Revise paragraph (c); and

■ e. In paragraphs (d) and (h), remove the word “detecting” wherever it appears and add, in its place, the word “detection”.

The revision reads as follows:

##### § 76.33–20 Operation and installation.

\* \* \* \* \*

(c) No exhaust from the detection 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 July 22, 2021.

\* \* \* \* \*

##### § 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 July 22, 2021”.

■ 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 those for the fire detection system set forth in § 76.27–15(d).

\* \* \* \* \*

##### § 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 the 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”;

■ b. In paragraphs (b) and (f), remove the word “boxes” wherever it appears and add, in its place, the word “stations”; and

■ c. In paragraphs (c) and (e), 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 January 18, 2017 and on or after November 19, 1952, must meet the requirements of § 76.50–80.

■ (c) Vessels contracted for prior to November 19, 1952, must meet the requirements of § 76.50–90.

##### § 76.50–5 [Removed and 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
<b>Safety Area <sup>1</sup></b>		
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 <sup>3</sup> .....	2 in the vicinity of the exit. <sup>2</sup>
<b>Accommodations <sup>1</sup></b>		
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.
<b>Service Spaces</b>		
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 <sup>3</sup> .....	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.
<b>Machinery Spaces</b>		
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. <sup>3</sup>
Internal combustion or gas turbine propelling machinery spaces.	160-B .....	1 required. <sup>4</sup>
	40-B .....	1 for each 1,000 brake horsepower, but not less than 2 or more than 6.
Electric propulsive motors or generators of open type .....	120-B .....	1 required. <sup>5</sup>
	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. <sup>6</sup>
Auxiliary spaces, electric emergency motors or generators .....	40-B:C .....	1 outside the space in the vicinity of the exit. <sup>6</sup>
Auxiliary spaces, steam .....	.....	None required.
Trunks to machinery spaces .....	.....	None required.
Fuel tanks .....	.....	None required.
<b>Cargo Spaces</b>		
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. <sup>7</sup>
Cargo oil tanks .....	.....	None required.
<b>Spare Units</b>		
	2-A .....	10 percent of the required number for public spaces rounded up.
	40-B .....	10 percent of the required number for cargo spaces rounded up.

TABLE 76.50—10(a)—CARRIAGE OF PORTABLE AND SEMI-PORTABLE FIRE EXTINGUISHERS—Continued

Space	Fire extinguishing	
	Minimum required rating	Quantity and location
	40–B:C .....	1.

<sup>1</sup> In any case, on vessels of 150 feet (45.72 meters) in length and over, there must be at least two 2–A units on each passenger deck.

<sup>2</sup> For vessels on an international voyage, substitute 1 20–B:C in the vicinity of the exit.

<sup>3</sup> Vessels of less than 1,000 GT and not on an international voyage require 1.

<sup>4</sup> Vessels of less than 1,000 GT and not on an international voyage may substitute 1 160–B.

<sup>5</sup> If 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.

<sup>6</sup> Not required on vessels of less than 300 GT if the fuel has a flashpoint higher than 110 °F.

<sup>7</sup> Two 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. Revise § 76.50–20 as follows:

■ a. In the section heading, remove the word “Semiportable” and add, in its place, the word “Semi-portable”;

■ 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 January 18, 2017.

(a) Vessels contracted for prior to January 18, 2017, 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. Sections 90.05–20 and 90.10–40 also issued under sec. 617, Pub. L. 111–281, 124 Stat. 2905.

■ 104. Amend § 90.01–1 by adding, at the end of the section, a sentence to read as follows:

#### § 90.01–1 Purpose of regulations.

\* \* \* 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

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

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition,

effective December 5, 2009, IBR approved for § 91.25–20(a).  
(2) [Reserved]

§ 91.25–20 [Amended]

- 107. Amend § 91.25–20 as follows:
- a. Revise paragraph (a)(1); and
- b. In paragraphs (a)(2) through (4), remove the word “shall” wherever it appears and add, in its place, the word “must”.

The revision reads as follows:

§ 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 a 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. Revise § 92.01–2(b)(1) to read as follows:

§ 92.01–2 Incorporation by reference.

\* \* \* \* \*

- (b) \* \* \*
- (1) International Convention for the Safety of Life at Sea (SOLAS), as amended, Consolidated Edition, 2009, including Erratum, IBR approved for § 92.07–1(c).

\* \* \* \* \*

§ 92.07–1 [Amended]

- 110. Amend § 92.07–1 as follows:
  - a. In paragraph (a)—
    - i. After the text “of § 92.07–90,” remove the word “shall”;
    - ii. After the text “4,000 gross tons,” remove the words “and over” and add, in their place, the words “or more”; and
    - iii. After the text “to January 1, 1962,” remove the word “shall” and add, in its place, the word “must”;
  - b. In paragraph (b)—
    - i. After the text “of § 92.07–90,” remove the word “shall”;
    - ii. After the text “300 gross tons,” remove the words “and over” and add, in their place, the words “or more”; and
    - iii. After the text “to July 1, 1968,” 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 (incorporated by reference, see § 92.01–2), may be considered equivalent to the provisions of this subpart.

PART 95—FIRE PROTECTION EQUIPMENT

- 111. 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.
- 112. Amend § 95.01–1 as follows:
  - a. Revise the section heading;
  - b. In paragraph (a), remove the word “shall”; and
  - c. Revise paragraph (b).
 The revisions read as follows:

§ 95.01–1 General.

\* \* \* \* \*

- (b) Equipment installed prior to August 22, 2016 as required by this paragraph (b) may remain in service so long as it is maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.
- 113. In § 95.01–2—
  - a. Redesignate paragraph (c) as (d);
  - b. Add new paragraphs (c) and (e); and
  - c. Revise redesignated paragraph (d).

The revision and additions read as follows.

§ 95.01–2 Incorporation by reference.

\* \* \* \* \*

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

(1) FSS Code, International Code for Fire Safety Systems, Second Edition, 2007 Edition (Resolution MSC.98(73)), IBR approved for § 95.05–3(a) and (b).

(2) [Reserved]

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

(1) NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition, effective August 26, 2009, IBR approved for § 95.30–1.

(2) [Reserved]

(e) UL (formerly Underwriters Laboratories), 12 Laboratory Drive, P.O. Box 13995, Research Triangle Park, NC 27709, 919–549–1400, <http://www.ul.com>.

(1) UL 19, Standard for Safety for Lined Fire Hose and Hose Assemblies, Twelfth Edition, approved November 30, 2001, IBR approved for § 95.10–10(n).

(2) [Reserved]

- 114. 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 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 chapter I, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105; and

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

**Subpart 95.05—Fire Detection and Extinguishing Equipment**

- 115. Revise the heading of subpart 95.05 to read as shown above.
- 116. 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.

(c) Enclosed spaces that are “specially suitable for vehicles” must be fitted with a fire detection and alarm system.

- 117. Add § 95.05–3 to read as follows:

**§ 95.05–3 Sample extraction smoke detection systems.**

(a) For vessels contracted for on or after January 18, 2017, 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

pipings, valves, controls and alarms, and by introduction of smoke into the accumulators.

**§ 95.10–5 [Amended]**

- 118. Amend § 95.10–5 as follows:
  - a. In paragraphs (a), (c), (d), (e), and (g), remove the word “shall” wherever it appears and add, in its place, the word “must”;
  - b. Revise Table 95.10–5(a);
  - c. In paragraph (b)—
    - i. After the words “On vessels of 1,000 gross tons”, remove the words “and over” and add, in their place, the words “or more”;
    - ii. After the words “paragraph (c) of this section,”, remove the word “shall” and add, in its place, the word “must”; and
    - iii. After the words “However, in no case”, remove the word “shall” and add, in its place, the word “may”;
    - iv. In paragraph (h), after the words “propulsion machinery, where”, remove the number “2” and add, in its place, the word “two”, and after the words “the installation of a total flooding”, remove the words “carbon dioxide” and add, in their place, the words “fixed fire extinguishing”.

The revision reads as follows:

**§ 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 1/2	1 1/2	150
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 1/2	2 7/8	250

<sup>1</sup> On vessels of 65 feet (19.8 meters) 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.

<sup>2</sup> A 1 1/2 inch hose that is 75 feet (22.86 meters) 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 (15.24 meters) 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.

\* \* \* \* \*

- 119. 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” or “fire hose” wherever they appear and add, in their place, the word “Firehose” or “firehose”;
  - c. Revise paragraph (b);
  - d. In paragraph (c), remove the words “and over” wherever they appear and add, in their place, the words “or more”; and

- e. In paragraph (g), after the words “at least one length of firehose, a spanner”, add the word “wrench”.
- The revision reads as follows:

**§ 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 is 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.

\* \* \* \* \*

- 120. 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).

■ 121. 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 August 22, 2016 and on or after November 19, 1952, must meet the requirements of § 95.50–80.

(c) Vessels contracted for prior to November 19, 1952, must meet the requirements of § 95.50–90.

**§ 95.50–5 [Removed and Reserved]**

■ 122. Remove and reserve § 95.50–5.

■ 123. 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
<b>Safety Areas <sup>1</sup></b>		
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 <sup>2</sup> .....	2 required in the vicinity of the exit. <sup>2</sup>
<b>Accommodations <sup>1</sup></b>		
Staterooms, toilet spaces, public spaces, offices, lockers, isolated storerooms, pantries, open decks, etc.	.....	None required.
<b>Service Spaces <sup>1</sup></b>		
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.
<b>Machinery Spaces</b>		
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. <sup>3</sup>
	160–B .....	1 required. <sup>4</sup>
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. <sup>5</sup>
	120–B .....	1 required. <sup>6,7</sup>
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.
<b>Auxiliary Spaces</b>		
Internal combustion or gas turbine .....	40–B .....	1 outside the space in the vicinity of the exit. <sup>7</sup>
Electric emergency motors or generators .....	40–B:C .....	1 outside the space in the vicinity of the exit. <sup>8</sup>
Steam .....	.....	None required.
Trunks to machinery spaces .....	.....	None required.
Fuel tanks .....	.....	None required.
<b>Cargo Spaces</b>		
Inaccessible during voyage, including trunks and cargo tanks	.....	None required.
Accessible during voyage .....	.....	None required.
<b>Spare Units</b>		
	2–A .....	10 percent of the total number required rounded up.
	40–B:C .....	10 percent of the total number required rounded up.

TABLE 95.50–10(a)—PORTABLE FIRE EXTINGUISHER AND SEMI-PORTABLE FIRE EXTINGUISHING SYSTEMS—Continued

Space	Minimum required rating	Quantity and location
	20–B:C .....	1

<sup>1</sup> For 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.

<sup>2</sup> For vessels on an international voyage, substitute one 20–C in the vicinity of the exit.

<sup>3</sup> Vessels of less than 1,000 gross tons require one.

<sup>4</sup> Vessels of less than 1,000 gross tons may substitute one 160–B.

<sup>5</sup> Only one is required for motorboats.

<sup>6</sup> If 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.

<sup>7</sup> Not required on vessels of less than 300 gross tons if the fuel has a flashpoint higher than 110 °F.

<sup>8</sup> Not 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]

■ 124. Remove § 95.50–15.

■ 125. Amend § 95.50–20 as follows:

■ a. Revise the section heading;

■ 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).

The revision and addition 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.

■ 126. Add § 95.50–80 to read as follows:

#### § 95.50–80 Location and number of fire extinguishers required for vessels constructed prior to August 22, 2016.

(a) Vessels constructed prior to August 22, 2016 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

■ 127. 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.

■ 128. 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.

■ 129. In § 107.235—

■ a. Revise the section heading and paragraph (a); and

■ b. Remove Table 107.235.

The revision read as follows:

#### § 107.235 Servicing of portable fire extinguishers, semi-portable fire extinguishers and fixed fire extinguishing systems.

(a) Except as provided in the following paragraphs, portable and semi-portable extinguishers must be inspected and maintained in accordance with NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, effective December 5, 2009. The Director of the Federal Register approves this

incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy from National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169, 617–770–3000, <http://www.nfpa.org>. You may inspect a copy 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; or 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

(1) Certification or licensing by a 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 has 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

(b) ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428, 877-909-2786, <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(b).

(2) ASTM F 1014-92, Standard Specification for Flashlights on Vessels, IBR approved for § 108.497(b).

(3) ASTM F1121-87 (Reapproved 2010), Standard Specification for International Shore Connections for Marine Fire Applications, (approved March 1, 2010), IBR approved for § 108.427(a).

(c) International Maritime Organization (IMO) Publishing, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://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, 17 November 1983, IBR approved for § 108.105(c).

(2) Resolution A.649(16), Code for the Construction and Equipment of Mobile Offshore Drilling Units (MODU Code), 19 October 1989 with amendments of June 1991, IBR approved for § 108.503.

(3) Resolution A.658(16), Use and Fitting of Retro-reflective Materials on Life-saving Appliances, 20 November 1989, IBR approved for §§ 108.645(a) and 108.649(a) and (e).

(4) Resolution A.760(18), Symbols Related to Life-saving Appliances and Arrangements, 17 November 1993, IBR approved for §§ 108.646(a), 108.647, 108.649(b), (d), (f), and (g), and 108.655(e).

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

(1) NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition, effective August 26, 2009, IBR approved for § 108.430.

(2) [Reserved]

**§ 108.405 [Amended]**

■ 132. In § 108.405(a)(1), 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 August 22, 2016 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
<b>Safety Areas</b>		
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.
<b>Accommodations</b>		
Staterooms, toilet spaces, public spaces, offices, lockers, small storerooms, pantries, open decks, and similar spaces.	.....	None required.
<b>Service Spaces</b>		
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.

TABLE 108.495—CARRIAGE OF PORTABLE FIRE EXTINGUISHERS—Continued

Space	Minimum required rating	Quantity and location
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.
<b>Machinery Spaces</b>		
Oil-fired boilers: Spaces containing oil-fired boilers, either main or auxiliary, or their fuel oil units.	40-B .....	2 required in each space.
Internal combustion or gas turbine propelling machinery spaces.	160-B .....	1 required in each space. See note 1.
	40-B .....	1 for each 1,000 brake horsepower but not less than 2 and not more than 6 in each space.
Motors or generators of electric propelling machinery that do not have an enclosed ventilating system.	120-B .....	1 required in each space. See note 1.
	40-B:C .....	1 for each motor or generator.
Motors and generators of electric propelling machinery that have enclosed ventilating systems.	.....	None required.
<b>Auxiliary Spaces</b>		
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.
<b>Miscellaneous Areas</b>		
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.
<b>Spare Units</b>		
	2-A .....	10 percent of the total required rounded up.
	40-B:C .....	10 percent of the total required rounded up.

<sup>1</sup> Not required where a fixed gas extinguishing system is installed.

<sup>2</sup> Not required where a fixed foam system is installed in accordance with § 108.489 of this subpart.

■ 136. In § 108.496—

- a. Revise the section heading;
- 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).

The revision and addition 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 of this chapter) 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 of this chapter) 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 regulations within the same fields.

■ 141. Amend § 114.400(b) to revise the definition of the term “Open to the atmosphere” to read as follows:

**§ 114.400 Definitions of terms used in this subchapter.**

\* \* \* \* \*

(b) \* \* \*

*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](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(a), (c), (d), and (g).

(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(b) through (e).

(5) H-25-94—Portable Gasoline Fuel Systems for Flammable Liquids, IBR approved for § 119.458(b).

(6) P-1-93—Installation of Exhaust Systems for Propulsion and Auxiliary Engines, IBR approved for §§ 116.405, 119.425(c) and 119.430(k).

(c) American Bureau of Shipping (ABS), ABS Plaza, 16855 Northchase Drive, Houston, TX 77060, 281-877-5800, <http://ww2.eagle.org>.

(1) Rules for Building and Classing Aluminum Vessels, 1975, IBR approved for § 116.300(b).

(2) Rules for Building and Classing Steel Vessels, 1995, IBR approved for §§ 119.410 and 120.360(a).

(3) Rules for Building and Classing Steel Vessels Under 61 Meters (200 Feet) in Length, 1983, IBR approved for § 116.300(a) and (b).

(4) Rules for Building and Classing Steel Vessels for Service on Rivers and Intracoastal Waterways, 1995, IBR approved for § 116.300(c).

(5) Guide for High Speed Craft, 1997, IBR approved for § 116.300(b).

(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 § 119.715.

(3) Z 26.1-1977, including 1980 supplement, Safety Glazing Materials For Glazing Motor Vehicles Operating on Land Highways, IBR approved for § 116.1030(b).

(e) ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428, 877-909-2786, <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(a).

(2) ASTM B 117-97, Standard Practice for Operating Salt Spray (Fog) Apparatus, IBR approved for § 114.400(b).

(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(a).

(4) ASTM B 127-98, Standard Specification for Nickel-Copper Alloy (UNS NO4400) Plate, Sheet, and Strip, IBR approved for § 119.440(a).

(5) ASTM B 152-97a, Standard Specification for Copper Sheet, Strip, Plate, and Rolled Bar, IBR approved for § 119.440(a).

(6) ASTM B 209-96, Standard Specification for Aluminum and

Aluminum-Alloy Sheet and Plate, IBR approved for § 119.440(a).

(7) ASTM D 93-97, Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester, IBR approved for § 114.400(b).

(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(a).

(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(a).

(10) ASTM E 84-98, Standard Test Method for Surface Burning Characteristics of Building Materials, IBR approved for §§ 116.405(f), 116.422(b), and 116.423(a).

(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(b) and 116.423(a).

(12) ASTM E 662-97, Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials, IBR approved for §§ 114.400(b) and 116.423(a).

(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(o).

(2) [Reserved]

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

(1) International Convention for the Safety of Life at Sea (SOLAS), as amended, Consolidated Edition, 2009, including Erratum, IBR approved for § 116.400(c).

(2) 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 § 114.540(c).

(3) Resolution A.658(16), Use and Fitting of Retro-Reflective Materials on Life-Saving Appliances, dated 20 November 1989, IBR approved for § 122.604(h) and (i).

(4) Resolution A.688(17), Fire Test Procedures For Ignitability of Bedding Components, dated 06 November 1991, IBR approved for § 116.405(j).

(5) Resolution A.760(18), Symbols Related to Life-Saving Appliances and

Arrangements, dated 17 November 1993, IBR approved for § 122.604(f).

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

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, effective December 5, 2009, IBR approved for § 115.810(b).

(2) NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition, effective August 26, 2009, IBR approved for §§ 116.439(d) and (e), and 116.440(c).

(3) NFPA 17-1994, Dry Chemical Extinguishing Systems, 1994 Edition, IBR approved for § 118.425(b).

(4) NFPA 17A-1994, Wet Chemical Extinguishing Systems, 1994 Edition, IBR approved for § 118.425(b).

(5) NFPA 70-1996, National Electrical Code (NEC), 1996 Edition,

(i) Section 250-95, IBR approved for § 120.372(c),

(ii) Section 310-13, IBR approved for § 120.340(d),

(iii) Section 310-15, IBR approved for § 120.340(o),

(iv) Article 430, IBR approved for § 120.320(e),

(v) Article 445, IBR approved for § 120.320(d).

(6) NFPA 92B-1995, Smoke Management Systems in Malls, Atria, and Large Areas, 1995 Edition, IBR approved for § 116.440(d).

(7) NFPA 261-1994, Test For Determining Resistance of Mock-up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes, 1994 Edition, IBR approved for § 114.400(b) and 116.423.

(8) NFPA 302-1994, Pleasure and Commercial Motor Craft, Chapter 6, 1994 Edition, IBR approved for §§ 121.200 and 121.240(a) through (c), (e) and (g).

(9) NFPA 306-1993, Control of Gas Hazards on Vessels, 1993 Edition, IBR approved for § 115.710(a).

(10) NFPA 701-1996, Fire Tests for Flame-Resistant Textiles and Films, 1996 Edition, IBR approved for § 116.423(a).

(11) NFPA 1963-1993, Fire Hose Connections, 1993 Edition, IBR approved for § 118.320(b).

(i) UL (formerly Underwriters Laboratories), 12 Laboratory Drive, P.O. Box 1399, Research Triangle Park, NC 27709, 919-549-1400, <http://www.ul.com>.

(1) UL 19, Standard for Safety for Lined Fire Hose and Hose Assemblies, Twelfth Edition, approved November 30, 2001, IBR approved for 118.320(b).

(2) UL 174-1989, Household Electric Storage Tank Water Heaters, as

amended through June 23, 1994, IBR approved for § 119.320(a).

(3) UL 486A-1992, Wire Connectors and Soldering Lugs For Use With Copper Conductors, IBR approved for § 120.340(i).

(4) UL 489-1995, Molded-Case Circuit Breakers and Circuit Breaker Enclosures, IBR approved for § 120.380(m).

(5) UL 595-1991, Marine Type Electric Lighting Fixtures, IBR approved for § 120.410(d).

(6) UL 710-1990, Exhaust Hoods For Commercial Cooking Equipment, as amended through September 16, 1993, IBR approved for § 118.425(a).

(7) UL 723-1993, Surface Burning Characteristics of Building Materials, as amended through April 20, 1994, IBR approved for §§ 114.400(b), 116.422(b), 116.423, and 116.425.

(8) UL 1056-1989, Fire Test of Upholstered Furniture, IBR approved for § 116.423(a) and (b).

(9) UL 1058-1989, Halogenated Agent Extinguishing System Units, as amended through April 19, 1994, IBR approved for § 118.410(g).

(10) UL 1102-1992, Non integral Marine Fuel Tanks, IBR approved for § 119.440(a).

(11) UL 1104-1981, Marine Navigation Lights, as amended through May 4, 1988, IBR approved for § 120.420.

(12) UL 1110-1988, Marine Combustible Gas Indicators, as amended through May 16, 1994, IBR approved for § 119.480.

(13) UL 1453-1988, Electric Booster and Commercial Storage Tank Water Heaters, as amended through June 7, 1994, IBR approved for § 119.320(a).

(14) UL 1570-1995, Fluorescent Lighting Fixtures, IBR approved for § 120.410(d).

(15) UL 1571-1995, Incandescent Lighting Fixtures, IBR approved for § 120.410(d).

(16) UL 1572-1995, High Intensity Discharge Lighting Fixtures, IBR approved for § 120.410(d).

(17) UL 1573-1995, Stage and Studio Lighting Units, IBR approved for § 120.410(d).

(18) UL 1574-1995, Track Lighting Systems, IBR approved for § 120.410(d).

#### PART 115—INSPECTION AND CERTIFICATION

■ 143. The authority citation for part 115 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. 277; Department of Homeland Security Delegation No. 0170.1.

■ 144. Amend § 115.810(b)(1) by removing “Portable Fire Extinguishers” from the first sentence and by adding “(incorporated by reference, see § 114.600 of this chapter)” to the first sentence, after the first instance of “NFPA 10”.

#### PART 116—CONSTRUCTION AND ARRANGEMENT

■ 145. 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.

■ 146. 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 (incorporated by reference, see § 114.600), may be considered equivalent to the provisions of this subpart.

■ 147. Amend § 116.440 as follows:

■ a. In paragraph (a), 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 “§ 76.33” and add, in its place, the text “§ 76.27”; and

■ d. In paragraph (c), after the words “an automatic sprinkler system meeting NFPA 13”, add the words “(incorporated by reference, see § 114.600)”.

#### PART 118—FIRE PROTECTION EQUIPMENT

■ 148. 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.

■ 149. In § 118.115—

■ a. Revise the section heading;

■ b. 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

■ c. Revise paragraph (d).

The revisions read as follows:

##### § 118.115 Applicability to existing vessels.

\* \* \* \* \*

(d) For vessels contracted for prior to August 22, 2016, 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.

■ 150. 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 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 chapter I, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105; and

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

■ 151. In § 118.310—

■ 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) Spanner wrenches must be provided for each fire hydrant required by this regulation. Existing vessels must comply with this requirement by January 18, 2017.

■ 152. In § 118.320, revise the section heading and paragraph (b)(1) to read as follows:

**§ 118.320 Firehoses and nozzles.**

\* \* \* \* \*

(b) \* \* \*

(1) Be lined commercial firehose that conforms to UL 19 “Standard for Safety for Lined Fire Hose and Hose Assemblies” (incorporated by reference, see § 114.600 of this chapter), or hose that is listed and labeled by an independent laboratory recognized by the Commandant as being equivalent in performance;

\* \* \* \* \*

■ 153. In § 118.400—

■ 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 their 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 “§ 118.425 of this part” and add, in its place, the text “§ 118.425”;

■ e. Revise paragraph (e);

■ f. In paragraph (f), after the words “a manual alarm system that meets the requirements in”, remove the text “§ 76.35” and add, in its place, the text “part 76”;

■ g. Revise paragraph (g); and

■ h. In paragraph (h), after the words “that meets the requirements of”, remove the text “§ 76.23” and add, in its place, the text “part 76”.

The revisions read as follows:

**§ 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; and

(2) A manual alarm system that meets the requirements in 46 CFR part 76.

\* \* \* \* \*

(g) An enclosed vehicle space must be fitted with an automatic sprinkler system that meets the requirements of 46 CFR part 76; and

(1) A fire detection system of a type approved by the Commandant that is installed in accordance with 46 CFR part 76; or

(2) A smoke detection system of a type approved by the Commandant that is installed in accordance with 46 CFR part 76.

**§ 118.410 [Amended]**

■ 154. 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 “0.624”; remove the number “192” and add, in its place, the number “0.749”; and

■ b. In paragraph (f)(6)(i), remove the number “480” and add, in its place, the number “1.88”.

■ 155. 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**

■ 156. 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.

■ 157. Amend § 122.612 as follows:

- a. Revise paragraphs (d) and (e);
- b. Remove paragraph (g);
- c. Redesignate paragraph (h) as new paragraph (g); and
- d. In newly redesignated paragraph (g), after the words “or as otherwise required by the”, remove the word “cognizant”; and following after the words “installed, that agent” remove the word “shall” and add, in its place, the word “must”.

The revisions read as follows:

**§ 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**

■ 158. 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; sec. 617, Pub. L. 111-281, 124 Stat. 2905; Department of Homeland Security Delegation No. 0170.1.

■ 159. In § 125.100, revise 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.

\* \* \* \* \*

■ 160. In § 125.180, revise paragraphs (i)(2), (j) introductory text, and (j)(1) to read as follows:

**§ 125.180 Incorporation by reference.**

\* \* \* \* \*

(i) \* \* \*

(2) NFPA 70, National Electrical Code, 2011 Edition, IBR approved for §§ 129.320(e), 129.340(d) and (n), and 129.370(c).

\* \* \* \* \*

(j) UL (formerly Underwriters Laboratories), 12 Laboratory Drive, P.O. Box 13995, Research Triangle Park, NC 27709, 919-549-1400, <http://www.ul.com>.

(1) UL 19, Standard for Safety for Lined Fire Hose and Hose Assemblies, Twelfth Edition, approved November 30, 2001, IBR approved for § 132.130.

\* \* \* \* \*

**PART 132—FIRE-PROTECTION EQUIPMENT**

■ 161. The authority citation for part 132 continues to read as follows:

**Authority:** 46 U.S.C. 3306, 3307; sec. 617, Pub. L. 111-281, 124 Stat. 2905; Department of Homeland Security Delegation No. 0170.1.

**§ 132.210 [Removed]**

■ 162. Remove § 132.210.

■ 163. 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;
- c. Redesignate paragraphs (b) through (f) as paragraphs (c) through (g), respectively;
- d. Add new paragraph (b);
- e. In newly redesignated paragraphs (c) and (g), remove the word “semiportable” wherever it appears 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”.

The revision and addition read as follows:

**§ 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.
Electric propulsion motors or generators of open type .....	120-B .....	1 required. <sup>1,2</sup>
Auxiliary spaces: Internal combustion .....	40-B:C .....	1 for each propulsion motor or generator unit.
Electric motors and emergency generators .....	40-B .....	1 outside space in the vicinity of the exit. <sup>2</sup>
Spares .....	40-B:C .....	1 outside space in the vicinity of the exit. <sup>2</sup>
	2-A .....	10 percent of the required number rounded up.
	40-B:C .....	10 percent of the required number rounded up.

<sup>1</sup> Not required where a fixed gaseous fire extinguishing system is installed.

<sup>2</sup> Not 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]**

- 164. Remove and reserve § 132.230.
- 165. 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.

- 166. Add § 132.250 to subpart B to read as follows:

**§ 132.250 Locations and number of fire extinguishers required for vessels constructed prior to August 22, 2016.**

Vessels contracted for prior to August 22, 2016, must meet the following requirements:

(a) 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.

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

- 167. 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 chapter I, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105; and

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

**PART 147—HAZARDOUS SHIPS' STORES**

- 168. 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.

- 169. Amend § 147.1 by revising the section heading and 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.

- 170. In § 147.7—

- a. Redesignate paragraphs (d) through (f), as paragraphs (e) through (g), respectively;

- b. Add new paragraph (d); and

- c. Revise redesignated paragraphs (e), (f), and (g).

The addition and revisions read as follows:

**§ 147.7 Incorporation by reference.**

\* \* \* \* \*

(d) Compressed Gas Association, Inc. (CGA), 14501 George Carter Way, Suite 103, Chantilly, Virginia 20151, 703-788-2700, <http://www.cganet.com>.

(1) CGA C-6-2007, Standards for Visual Inspection of Steel Compressed Gas Cylinders, Tenth Edition, 2007, IBR approved for § 147.65(b).

(2) [Reserved]

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

(1) NFPA 2001, Standard on Clean Agent Fire Extinguishing Systems, 2008 Edition, IBR approved for §§ 147.66(c) and 147.67(c).

(2) NFPA 12A, Standard on Halon 1301 Fire Extinguishing Systems, 2009 Edition, effective July 18, 2008, IBR approved for § 147.65(b).

(f) Public Health Service (PHS), Department of Health and Human Services (DHHS), Superintendent of Documents, U.S. Government Printing Office, 710 North Capitol Street NW., Washington, DC 20401, 866-512-1800, <http://www.gpo.gov>.

(1) DHHS Publication No. PHS 84-2024, The Ship's Medicine Chest and Medical Aid at Sea, revised 1984, IBR approved for § 147.105.

(2) [Reserved]

(g) UL (formerly Underwriters Laboratories), 12 Laboratory Drive, P.O. Box 13995, Research Triangle Park, NC 27709, 919-549-1400, <http://www.ul.com>.

(1) UL 30, Standard for Metal Safety Cans, 7th Ed., revised March 3, 1987, ("UL 30"), IBR approved for § 147.45(f).

(2) UL 1185, Standard for Portable Marine Fuel Tanks, Second Edition, revised July 6, 1984, ("UL 1185"), IBR approved for § 147.45(f).

(3) UL 1313, Standard for Nonmetallic Safety Cans for Petroleum Products, 1st Ed., revised March 22, 1985, ("UL 1313"), IBR approved for § 147.45(f).

(4) UL 1314, Standard for Special-Purpose Containers, 1st Ed., revised February 7, 1984, ("UL 1314"), IBR approved for § 147.45(f).

- 171. 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 (4).

(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/audio gauging 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/audio gauging 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 (4).

#### **PART 159—APPROVAL OF EQUIPMENT AND MATERIALS**

■ 172. 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.

■ 173. Add § 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.

■ 174. Amend § 159.001–3 to add the definitions of “Marine Equipment Directive (MarED)” 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.

\* \* \* \* \*

■ 175. Revise § 159.001–4 to read as follows:

##### **§ 159.001–4 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. All approved material is available for inspection at the U.S. Coast Guard, Office of Design and Engineering Standards (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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

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

(1) Resolution A.739(18), Guidelines for the Authorization of Organizations Acting on Behalf of the Administration, November 22, 1993, IBR approved for § 159.001–3.

(2) [Reserved]

(c) International Organization for Standardization, ISO Central Secretariat BIBC II, Chemin de Blandonnet 8, CP 401, 1214 Vernier, Geneva, Switzerland, +41 22 749 01 11, <http://www.iso.org>.

(1) ISO/IEC 17025:2005(E), International Standard: General requirements for the competence of testing and calibration laboratories, Second edition, 15 May 2005 (“ISO/IEC 17025”), IBR approved for § 159.010–3(a).

(2) [Reserved]

■ 176. 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 a Mutual Recognition Agreement (MRA).

159.003–5 Approval by the Coast Guard under a Mutual Recognition Agreement (MRA).

159.003–7 Multiple approval numbers.

159.003–9 Products covered by Mutual Recognition Agreement (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 Acceptance of foreign approvals under a Mutual Recognition Agreement (MRA).**

A Coast Guard approval issued by a foreign authority in accordance with the

provisions of 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 as specified in the MRA 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>.

■ 177. Amend § 159.010-3 by revising 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 (incorporated by reference, see § 159.001-4) 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**

■ 178. 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; and Department of Homeland Security Delegation No. 0170.1.

**Subpart 160.900 [Removed]**

■ 179. Remove subpart 160.900.

**PART 161—ELECTRICAL EQUIPMENT**

■ 180. 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**

■ 181. Revise the heading for subpart 161.002 to read as set forth above.

■ 182. 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

(b) FM Global, 1151 Boston-Providence Turnpike, P.O. Box 9102, Norwood, MA 02062, 781-762-4300, <http://www.fmglobal.com>.

(1) ANSI/FM Approvals 3260, American National Standard for Radiant Energy-Sensing Fire Detectors for Automatic Fire Alarm Signaling, February 2004 (“ANSI/FM 3260”), IBR approved for § 161.002-6(b).

(2) [Reserved]

(c) International Electrotechnical Commission (IEC), 3, rue de Varembe, P.O. Box 131, CH-1211 Geneva 20—Switzerland, +41 22 919 02 11, <http://www.iec.ch>.

(1) IEC 60092-504:2001(E), Electrical Installations in Ships—Part 504: Special Features—Control and Instrumentation, Third edition, March 2001, IBR approved for § 161.002-6(c) and (d), and § 161.002-15(d).

(2) [Reserved]

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

(1) FSS Code, International Code for Fire Safety Systems, Second Edition, 2007 Edition (Resolution MSC.98(73)), IBR approved for § 161.002-15(b).

(2) [Reserved]

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

(1) NFPA 72, National Fire Alarm and Signaling Code, 2010 Edition, effective August 26, 2009 (“NFPA 72”), IBR approved for § 161.002-10(b).

(2) [Reserved]

(f) UL (formerly Underwriters Laboratories), 12 Laboratory Drive, P.O. Box 13995, Research Triangle Park, NC 27709, 919-549-1400, <http://www.ul.com>.

(1) UL 38, Standard for Safety for Manual Signaling Boxes for Fire Alarm Systems, Eighth Edition, dated July 3, 2008, as amended through December 11, 2008, IBR approved for § 161.002-6(b).

(2) UL 268, Standard for Safety for Smoke Detectors for Fire Alarm Systems, Sixth Edition, dated August 14, 2009, IBR approved for § 161.002-6(b).

(3) UL 464, Standard for Safety for Audible Signal Appliances, Ninth Edition, dated April 14, 2009, as amended through April 16, 2012, IBR approved for § 161.002-6(b).

(4) UL 521, Standard for Safety for Heat Detectors for Fire Protective Signaling Systems, Seventh Edition, dated February 19, 1999, as amended through October 3, 2002, IBR approved for § 161.002-6(b).

(5) UL 864, Standard for Safety for Control Units and Accessories for Fire Alarm Systems, Ninth Edition, dated September 30, 2003, as amended through January 12, 2011, IBR approved for §§ 161.002-6(b) and 161.002-15(d).

(6) UL 1480, Standard for Safety for Speakers for Fire Alarm, Emergency, and Commercial and Professional Use, Fifth Edition, dated January 31, 2003, as amended through June 23, 2010, IBR approved for § 161.002-6(b).

(7) UL 1971, Standard for Safety for Signaling Devices for the Hearing Impaired, Third Edition, approved November 29, 2002, as amended through October 15, 2008, IBR approved for § 161.002-6(b).

■ 183. 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.

*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]**

■ 184. Remove and reserve § 161.002-3.

■ 185. 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 and 46 CFR chapter I, subchapter J (Electrical Engineering) of this chapter.

(b) Approvals for detection systems issued before July 22, 2017 will remain valid until July 22, 2021.

(c) Detection systems installed, with a valid approval, before July 22, 2021 may be maintained onboard vessels and repaired as indicated in 46 CFR 76.27-80(d).

■ 186. Add § 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;
- (2) Heat detectors—UL 521;
- (3) Smoke detectors—UL 268;
- (4) Flame detectors—ANSI/FM 3260;
- (5) Audible alarms—UL 464 or UL 1480;
- (6) Visual alarms—UL 1971; and
- (7) Manual Signaling Boxes—UL 38.

(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

IEC 60092-504 Environmental type test	Category 1	Category 2	Category 3
	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	<sup>1</sup> X	<sup>1</sup> X	<sup>1</sup> X
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 rms)		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

<sup>1</sup> This 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. Otherwise, 46 CFR 111.01–9 must be complied with.

■ 187. Revise § 161.002–8(a) 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.

\* \* \* \* \*

■ 188. 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 this chapter.

■ 189. 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 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]**

■ 190. Remove § 161.002–12.

**§ 161.002–14 [Removed]**

■ 191. Remove § 161.002–14.

■ 192. 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 chapter I, subchapter J (Electrical Engineering) 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 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 UL 864 and tested to the parameters found in IEC 60092–504 (both incorporated by reference, see § 161.002–1).

■ 193. Amend § 161.002–18 as follows:

■ a. Revise the section heading;

■ b. In paragraph (a) introductory text, remove the text “(CG–ENG)” 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);

■ e. Redesignate paragraph (a)(4) as paragraph (a)(5);

■ f. Add new paragraph (a)(4);

■ g. In newly redesignated paragraph (a)(5) introductory text, remove the word “annunciator” and add, in its place, the word “annunciator”;

■ h. In paragraph (c), 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 “for 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 to document compliance with § 161.002–6”; 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)”.

The revisions and addition read as follows

**§ 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(b)(2).

(4) One copy of the complete test report(s) meeting the requirements of

§ 161.002–6 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 Web site: <http://cgmix.uscg.mil/eqlabs/>.

\* \* \* \* \*

■ 194. 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 or they may electronically submit material to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil):

(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(b)(2).

(4) One copy of the complete test report(s) meeting the requirements of § 161.002–6 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 Web site: <http://cgmix.uscg.mil/eqlabs/>.

(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(b)(2); 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.

(c) If the Coast Guard approves the device or a revision to a device, it issues a Certificate of Approval, normally valid for a 5-year term.

**PART 162—ENGINEERING EQUIPMENT**

■ 195. 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

- 196. Revise the heading for subpart 162.027 to read as set forth above.
- 197. 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.

- 198. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

(b) ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428, 877–909–2786, <http://www.astm.org>.

(1) ASTM F1546/F1546 M–96 (Reapproved 2012), Standard Specification for Fire Hose Nozzles, approved May 1, 2012, (“ASTM F 1546”), IBR approved for §§ 162.027–3(a) through (c), and 162.027–4(a) and (d).

(2) [Reserved]

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

(1) NFPA 1964 Standard for Spray Nozzles, 2008 Edition, effective December 31, 2007, IBR approved for §§ 162.027–3(a) through (c), and 162.027–4(a) and (d).

(2) [Reserved]

- 199. 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–4).

(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.

- 200. Amend newly redesignated § 162.027–4 by revising paragraph (a) and adding paragraphs (c) through (g) 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.

\* \* \* \* \*

(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 submit:

- (1) A cover letter requesting type approval of the equipment;
- (2) A test report from the accepted independent laboratory showing

compliance of the firehose nozzle with ASTM F 1546 or NFPA 1964;

(3) 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

(4) Documentation of the firehose nozzle, including an exterior drawing, assembly drawing, components list, and bill of material.

(e) All documentation must be either mailed to Commandant (CG–ENG–4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509 or electronically submitted to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil).

(f) Upon evaluation 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 have been made.

- 201. 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](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, 617–770–3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, effective December 5, 2009, IBR approved for § 162.028–2(a).

(2) [Reserved]

(c) UL (formerly Underwriters Laboratories), 12 Laboratory Drive, P.O. Box 13995, Research Triangle Park, NC 27709, 919–549–1400, <http://www.ul.com>.

(1) UL 8, Standard for Safety for Water Based Agent Fire Extinguishers, Sixth Edition, dated February 28, 2005, as amended through July 27, 2010, IBR approved for § 162.028–3(a).

(2) UL 154, Standard for Safety for Carbon-Dioxide Fire Extinguishers, Ninth Edition, dated February 28, 2005, as amended through November 8, 2010, IBR approved for § 162.028–3(a).

(3) UL 299, Standard for Safety for Dry Chemical Fire Extinguishers, Eleventh Edition, dated April 13, 2012, IBR approved for § 162.028–3(a).

(4) UL 626, Standard for Safety for Water Fire Extinguishers, Eighth Edition, dated February 28, 2005, as amended through November 8, 2010, IBR approved for § 162.028–3(a).

(5) UL 711, Standard for Safety for Rating and Fire Testing of Fire Extinguishers, Seventh Edition, dated December 17, 2004, as amended through April 28, 2009, IBR approved for § 162.028–2(a) and 162.028–3(a).

(6) UL 2129, Standard for Safety for Halocarbon Clean Agent Fire Extinguishers, Second Edition, dated February 28, 2005, as amended through March 30, 2012, IBR approved for § 162.028–3(a).

■ 202. 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).

\* \* \* \* \*

■ 203. 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;
- (2) UL 154;
- (3) UL 299;
- (4) UL 626;
- (5) UL 711; and
- (6) UL 2129.

(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.

■ 204. 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 the Coast Guard approval number, thus: “Marine Type USCG Type Approval No. 162.028/\_\_\_\_.”

\* \* \* \* \*

■ 205. 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>.

■ 206. 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**

■ 207. Revise the heading for subpart 162.039 to read as set forth above.

■ 208. 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](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, 617–770–3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, effective December 5, 2009, IBR approved for § 162.039–2(a).

(2) [Reserved]

(c) UL (formerly Underwriters Laboratories), 12 Laboratory Drive, P.O. Box 13995, Research Triangle Park, NC 27709, 919–549–1400, <http://www.ul.com>.

(1) UL 8, Standard for Safety for Water Based Agent Fire Extinguishers, Sixth Edition, dated February 28, 2005, as amended through July 27, 2010, IBR approved for § 162.039–3(a).

(2) UL 154, Standard for Safety for Carbon-Dioxide Fire Extinguishers, Ninth Edition, dated February 28, 2005, as amended through November 8, 2010, IBR approved for § 162.039–3(a).

(3) UL 299, Standard for Safety for Dry Chemical Fire Extinguishers, Eleventh Edition, dated April 13, 2012, IBR approved for § 162.039–3(a).

(4) UL 626, Standard for Safety for Water Fire Extinguishers, Eighth

Edition, dated February 28, 2005, as amended through November 8, 2010, IBR approved for § 162.039–3(a).

(5) UL 711, Standard for Safety for Rating and Fire Testing of Fire Extinguishers, Seventh Edition, dated December 17, 2004, as amended through April 28, 2009, IBR approved for §§ 162.039–2(a) and 162.039–3(a).

(6) UL 2129, Standard for Safety for Halocarbon Clean Agent Fire Extinguishers, Second Edition, dated February 28, 2005, as amended through March 30, 2012, IBR approved for § 162.039–3(a).

■ 209. Revise § 162.039–2(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).

\* \* \* \* \*

■ 210. 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;
- (2) UL 154;
- (3) UL 299;
- (4) UL 626;
- (5) UL 711; and
- (6) UL 2129.

(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.

■ 211. 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.

■ 212. 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]

■ 213. Revise § 162.039–7 (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. The laboratory will inform the submitter as to the requirements for inspections, examinations, and testing necessary for such listing and labeling. All costs in connection with the examinations, tests, and inspections, listings and labelings are payable by the manufacturer.

\* \* \* \* \*

■ 214. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

(b) UL (formerly Underwriters Laboratories), 12 Laboratory Drive, P.O. Box 13995, Research Triangle Park, NC 27709, 919–549–1400, <http://www.ul.com>.

(1) UL 162, Standard for Safety for Foam Equipment and Liquid Concentrates, Seventh Edition, dated March 30, 1994, as amended through October 10, 2014, IBR approved for §§ 162.163–3(d) through (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. Five gallon (19 liter) foam concentrate pails are an acceptable substitute for the 20-liter tanks.

(c) Requirements for carriage of portable foam applicators may be met by the carriage of either:

(1) Portable foam applicators in accordance with this subpart, with either integral or separate eductors of fixed percentage and foam concentrate designed, constructed, tested, marked, and approved in accordance with the provisions of this section; or

(2) Components and foam concentrate from deck and heli-deck foam systems approved under approval series 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 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-4) or at <http://cgmix.uscg.mil/eqlabs/>.

(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 eligible for approval 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. 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).

(c) Applicants seeking type approval of portable foam applicators must submit:

(1) A cover letter requesting type approval of the equipment;

(2) A test report from the accepted independent laboratory showing compliance of the portable foam applicator with UL 162;

(3) A copy of the contract for a follow-up program with the accepted independent laboratory; and

(4) Documentation of the portable foam applicator, including an exterior drawing, assembly drawing, components list, and bill of material.

(d) All documentation must either be mailed to Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509 or electronically submitted to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil).

(e) Upon evaluation 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 applicators 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 standards listed in § 162.027-2 have been made.

### PART 164—MATERIALS

■ 215. 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; and Department of Homeland Security Delegation No. 0170.1.

■ 216. 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.

■ 217. 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.

■ 218. 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.

■ 219. 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.

■ 220. 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.

■ 221. 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. 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition ("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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther

King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [ypeapproval@uscg.mil](mailto:ypeapproval@uscg.mil). 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 164.106 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012

Edition ("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 either a

written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil). 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 164.107 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.

**§ 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

(b) International Maritime Organization (IMO) Publishing, 4 Albert

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition (“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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil). 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 164.108 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.

**§ 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition ("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 either a written request for type approval to the Commandant (CG-ENG-4) United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil). 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 164.109 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.

**§ 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition ("FTP Code"), 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). 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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [ypeapproval@uscg.mil](mailto:ypeapproval@uscg.mil). 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 164.110 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition ("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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [ypeapproval@uscg.mil](mailto:ypeapproval@uscg.mil). 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 164.111 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition (“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/m<sup>2</sup> 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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil). 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 164.112 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.

##### § 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition (“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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [ypeapproval@uscg.mil](mailto:ypeapproval@uscg.mil). 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 164.117 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition ("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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [ypeapproval@uscg.mil](mailto:ypeapproval@uscg.mil). 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 164.136 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. 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition (“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 either a written request for type approval to the Commandant (CG–ENG–4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593–7509, or electronically submit a request to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil). 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.

■ 231. 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. 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition (“FTP Code”), IBR approved for § 164.137–3(a).

(2) Resolution A.754(18), Recommendation on Fire Resistance Tests for “A”, “B” and “F” Class Divisions, adopted 4 November 1993 (“IMO 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). 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 IMO 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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil). 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 164.138 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition ("FTP Code"), IBR approved for § 164.138-3(a).

(2) Resolution A.754(18), Recommendation on Fire Resistance Tests for "A", "B" and "F" Class Divisions, adopted 4 November 1993 ("IMO 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 IMO 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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil). 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 164.139 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for the Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition (“FTP Code”), IBR approved for § 164.139-3(a).

(2) Resolution A.754(18), Recommendation on Fire Resistance Tests for “A”, “B” and “F” Class Divisions, adopted 4 November 1993 (“IMO 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 (incorporated by reference, see § 164.139-2). Such

devices must also be tested in accordance with Appendix A-II of IMO 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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [ypeapproval@uscg.mil](mailto:ypeapproval@uscg.mil). 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 164.141 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition (“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, adopted on 19 October 1989

(“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, adopted on 4 November 1993 (“IMO Resolution A.753(18)”), IBR approved for § 164.141–3(a) and (b).

(4) Resolution MSC.313(88), Amendments to the Guidelines for the Application of Plastic Pipes on Ships, (“IMO Resolution MSC.313(88)”), adopted 26 November 2010, 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) and IMO Resolution MSC.313(88) (all 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) and IMO Resolution MSC.313(88). 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, inches	Minimum size * approved	Maximum size * approved, inches
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 ½ 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 the non-metallic materials requirements in 46 CFR 56.60–25(a)(1).

(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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil). 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 164.142 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. 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\\_](http://www.archives.gov/federal_)

[register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition ("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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil). 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.

■ 236. 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. 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\\_](http://www.archives.gov/federal_)



[register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.imo.org/register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition ("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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil). 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.

■ 237. 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition ("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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil). 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.

■ 238. 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. 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\\_](http://www.archives.gov/federal_)

[register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition ("FTP Code"), IBR approved for § 164.201-3(a).

(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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil). 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.

■ 239. 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. 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\\_](http://www.archives.gov/federal_)

[register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](#).

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

(1) 2010 FTP Code, International Code for Application of Fire Test Procedures, 2010 (Resolution MSC.307(88)), 2012 Edition ("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 either a written request for type approval to the Commandant (CG-ENG-4), United States Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Stop 7509, Washington, DC 20593-7509, or electronically submit a request to [typeapproval@uscg.mil](mailto:typeapproval@uscg.mil). 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]

■ 240. Remove subpart 164.900.

#### PART 167—PUBLIC NAUTICAL SCHOOL SHIPS

■ 241. 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.

■ 242. In § 167.01-5, add a sentence to the end of paragraph (a) to read as follows:

#### § 167.01-5 Applicability; preemptive effect.

(a) \* \* \* The regulations in this subchapter have preemptive effect over State or local regulations in the same field.

\* \* \* \* \*

■ 243. In § 167.45-30 —

■ a. Redesignate the existing 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 chapter I, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105; and

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

#### PART 169—SAILING SCHOOL VESSELS

■ 244. 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.

■ 245. 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. 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](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(c).

(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) H-24.9 (g) and (h)—“Fuel Strainers and Fuel Filters” (1975), IBR approved for § 169.629.

(6) P-1-73, Safe Installation of Exhaust Systems for Propulsion and

Auxiliary Engines, 1973, IBR approved for § 169.609.

(c) DLA Document Services, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111, <http://quicksearch.dla.mil>.

(1) Federal Specification ZZ-H-451, Hose, Fire, Woven-Jacketed Rubber or Cambric-Lined, with Couplings, F, IBR approved for § 169.563(c).

(2) [Reserved]

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

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, effective December 5, 2009, IBR approved for § 169.247(a).

(2) NFPA 70, National Electrical Code, Article 310-8 and Table 310-13, 1980, IBR approved for § 169.672(a).

(3) NFPA 302, Pleasure and Commercial Motor Craft, Chapter 6, 1980, IBR approved for § 169.703(c).

(4) NFPA 306, Control of Gas Hazards on Vessels, 1980, IBR approved for § 169.236(a).

(e) NIST, 100 Bureau Drive, Stop 1070, Gaithersburg, MD 20899, 301-975-6478, <http://nist.gov>.

(1) Special Pub. 440 (SD Cat. No. C13.10:490), "Color: Universal Language and Dictionary of Names", 1976.

(2) [Reserved]

(f) UL (formerly Underwriters Laboratories), 12 Laboratory Drive, P.O. Box 13995, Research Triangle Park, NC 27709, 919-549-1400, <http://www.ul.com>.

(1) UL 19, Standard for Safety for Lined Fire Hose and Hose Assemblies, Twelfth Edition, approved November 30, 2001, IBR approved for § 169.563(c).

(2) [Reserved]

**§ 169.236 [Amended]**

■ 246. In § 169.236(a), after the words "The provisions of NFPA 306", remove the words ", "Control of Gas Hazards on Vessels,"" and add, in their place, the words "(incorporated by reference, see § 169.115)".

■ 247. Revise § 169.247 to read as follows:

**§ 169.247 Fire fighting equipment.**

(a) At each inspection for certification and periodic inspection and at such other times as considered necessary, all fire extinguishing equipment must be inspected to ensure it is in suitable condition. Tests may be necessary to determine the condition of the equipment. The inspector must verify 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 as fire extinguisher servicing agency by a state or local authority having jurisdiction 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 must be 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 must be 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.

■ 248. In § 169.563, revise paragraph (c) to read as follows:

**§ 169.563 Firehose.**

\* \* \* \* \*

(c) Vessels of 90 feet or more must have lined commercial firehose that conforms to UL 19 or Federal Specification ZZ-H-451 (incorporated by reference, see § 169.115). The

firehose must be fitted with a combination nozzle approved under § 162.027 of this chapter.

\* \* \* \* \*

■ 249. Amend § 169.567 as follows:

- a. Revise the section heading;
- b. Revise paragraphs (a) and (b); and
- c. Remove paragraph (g).

The revisions read as follows:

**§ 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 re- quired rating	Quantity and location
Propulsion machinery space without fixed extinguishing system.	40-B:C .....	2.
Propulsion machinery space with fixed extinguishing system ..	40-B:C .....	1 in the vicinity of the exit.
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 .....	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.

\* \* \* \* \*

**PART 175—GENERAL PROVISIONS**

■ 250. The authority citation for part 175 continues to read as follows:

**Authority:** 46 U.S.C. 2103, 3205, 3306, 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 44 U.S.C. 3507.

■ 251. In § 175.100, add a sentence to the end of the section to read as follows:

**§ 175.100 Purpose.**

\* \* \* \* \*

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

■ 252. In § 175.400, add the definitions of “Ignition source” and “Isolated space”, in alphabetical order, and revise the definition of “Open to the atmosphere” to read as follows:

**§ 175.400 Definitions of terms used in the subchapter.**

\* \* \* \* \*

*Ignition source* means an internal combustion engine regardless of horsepower or 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 forepeak 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. 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](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 (“ABYC A-1”), IBR approved for § 184.240(a), (c), (d), and (g).

(2) A-3-93, Galley Stoves (“ABYC A-3”), IBR approved for § 184.200.

(3) A-7-70, Boat Heating Systems (“ABYC A-7”), IBR approved for § 184.200.

(4) A-16-89, Electric Navigation Lights (“ABYC A-16”), IBR approved for § 183.130(a).

(5) A-22-93, Marine Compressed Natural Gas (CNG) Systems (“ABYC A-22”), IBR approved for § 184.240(b) through (e).

(6) E-8, Alternating Current (AC) Electrical Systems on Boats, July 2001 (“ABYC E-8”), IBR approved for §§ 183.130(a) and 183.340(b).

(7) E-9, Direct Current (DC) Electrical Systems on Boats (May 28, 1990) (“ABYC E-9”), IBR approved for §§ 183.130(a) and 183.340(b).

(8) H-2-89, Ventilation of Boats Using Gasoline (“ABYC H-2”), IBR approved for §§ 182.130 and 182.460(m).

(9) H-22-86, DC Electric Bilge Pumps Operating Under 50 Volts (“ABYC H-22”), IBR approved for §§ 182.130 and 182.500(b).

(10) H-24-93, Gasoline Fuel Systems (“ABYC H-24”), IBR approved for §§ 182.130, 182.440(d), 182.445, 182.450(f) and 182.455(c).

(11) H-25-94, Portable Gasoline Fuel Systems for Flammable Liquids (“ABYC H-25”), IBR approved for §§ 182.130 and 182.458(b).

(12) H-32-87, Ventilation of Boats Using Diesel Fuel (“ABYC H-32”), IBR approved for §§ 182.130, 182.465(i) and 182.470(c).

(13) H-33-89, Diesel Fuel Systems (“ABYC H-33”), IBR approved for §§ 182.130, 182.440(d), 182.445(f), 182.450(f) and 182.455(c).

(14) P-1-93, Installation of Exhaust Systems for Propulsion and Auxiliary Engines (“ABYC P-1”), IBR approved for §§ 177.405(b), 177.410(c), 182.130, 182.425(c), and 182.430(k).

(15) P-4-89, Marine Inboard Engines (“ABYC P-4”), IBR approved for §§ 182.130 and 182.420(b) and (d).

(c) American Bureau of Shipping (ABS), ABS Plaza, 16855 Northchase Drive, Houston, TX 77060, 281-877-5800, <http://www2.eagle.org>.

(1) Guide for High Speed Craft, 1997 (“ABS High Speed Craft”), IBR approved for § 177.300(c) and (d).

(2) Rules for Building and Classing Aluminum Vessels, 1975 (“ABS Aluminum Vessel Rules”), IBR approved for § 177.300(d).

(3) Rules for Building and Classing Reinforced Plastic Vessels, 1978 (“ABS Plastic Vessel Rules”), IBR approved for § 177.300(c).

(4) Rules for Building and Classing Steel Vessels, 1995 ("ABS Steel Vessel Rules"), IBR approved for § 183.360(b).

(5) Rules for Building and Classing Steel Vessels Under 61 Meters (200 feet in Length, 1983 ("ABS Steel Vessel Rules (≤61 Meters)"), 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 (Rivers/ Intracoastal)"), IBR approved for § 177.300(e).

(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 ("ANSI A 17.1"), IBR approved for § 183.540.

(2) B 31.1-1986, Code for Pressure Piping, Power Piping ("ANSI B 31.1."), IBR approved for § 182.710(c).

(3) Motor Vehicles Operating on Land Highways ("ANSI Z 26.1"), IBR approved for § 177.1030(b).

(e) ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428, 877-909-2786, <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 ("ASTM B 96"), IBR approved for § 182.440(a).

(2) ASTM B 117-97, Standard Practice for Operating Salt Spray (Fog) Apparatus ("ASTM B 117"), 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 ("ASTM B 122"), IBR approved for § 182.440(a).

(4) ASTM B 127-98, Standard Specification for Nickel-Copper Alloy (UNS NO4400) Plate, Sheet, and Strip ("ASTM B 127"), IBR approved for § 182.440(a).

(5) ASTM B 152-97a, Standard Specification for Copper Sheet, Strip, Plate, and Rolled Bar ("ASTM B 152"), IBR approved for § 182.440(a).

(6) ASTM B 209-96, Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate ("ASTM B 209"), IBR approved for § 182.440(a).

(7) ASTM D 93-97, Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester ("ASTM D 93"), 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 ("ASTM D 635"), IBR approved for § 182.440(a).

(9) ASTM D 2863-95, Standard Method for Measuring the Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics (Oxygen Index) ("ASTM D 2863"), IBR approved for § 182.440(a).

(10) ASTM E 84-98, Standard Test Method for Surface Burning Characteristics of Building Materials ("ASTM E 84"), IBR approved for § 177.410(a) and (b).

(f) DLA Document Services, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111, <http://quicksearch.dla.mil>.

(1) Military Specification MIL-P-21929C, Plastic Material, Cellular Polyurethane, Foam-in-Place, Rigid (2 and 4 pounds per cubic foot), 1991 ("NPFC MIL-P-21929C"), IBR approved for § 179.240(b).

(2) Military Specification MIL-R-21607E(SH), Resins, Polyester, Low Pressure Laminating, Fire Retardant ("NPFC MIL-R-21607E(SH)"), 1990 IBR approved for § 177.410.

(g) 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 ("IEEE 45-1977"), IBR approved for § 183.340(o).

(2) [Reserved]

(h) International Maritime Organization (IMO) Publishing, 4 Albert Embankment, London SE1 7SR, United Kingdom, +44 (0)20 7735 7611, <http://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 ("IMO Resolution A.520(13)"), IBR approved for § 175.540(c).

(2) Resolution A.658(16), Use and Fitting of Retro-Reflective Materials on Life-Saving Appliances, dated 20 November 1989 ("IMO Resolution A.658(16)"), IBR approved for § 185.604(h) and (i).

(3) Resolution A.688(17), Fire Test Procedures For Ignitability of Bedding Components ("IMO Resolution A.688(17)"), dated 6 November 1991, IBR approved for § 177.405(g).

(4) Resolution A.760(18), Symbols Related to Life-Saving Appliances and Arrangements ("IMO Resolution A.760(18)"), dated 17 November 1993, IBR approved for § 185.604(f).

(5) International Convention for the Safety of Life at Sea (SOLAS), as amended, Consolidated Edition, 2009, including Erratum, IBR approved for § 177.420.

(i) 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, December 1990 ("ISO 8846"), IBR approved for § 182.500(b).

(2) ISO 8849, Small Craft-Electrically Operated Bilge Pumps, December 15, 1990 ("ISO 8849"), IBR approved for § 182.500(b).

(j) 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 ("Lloyd's Yachts and Small Craft"), IBR approved for § 177.300(a).

(2) [Reserved]

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

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, effective December 5, 2009, IBR approved for § 176.810(b).

(2) NFPA 17-1994, Dry Chemical Extinguishing Systems, 1994 Edition, IBR approved for § 181.425(b).

(3) NFPA 17A-1994, Wet Chemical Extinguishing Systems, 1994 Edition, IBR approved for § 181.425(b).

(4) NFPA 70-1996, National Electrical Code (NEC), 1996 Edition, IBR approved for §§ 183.320(d) and (e), 183.340(d) and (o), and 183.372(c).

(5) NFPA 302-1994, Pleasure and Commercial Motor Craft, Chapter 6, 1994 Edition, IBR approved for §§ 184.200 and 184.240(a) through (c), (d) and (h).

(6) NFPA 306-1993, Control of Gas Hazards on Vessels, 1993 Edition, IBR approved for § 176.710(a).

(7) NFPA 1963-1989, Fire Hose Connections, 1989 Edition, IBR approved for § 181.320(b).

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

(1) SAE J-1475, Hydraulic Hose Fittings For Marine Applications, 1984 ("SAE J-1475"), IBR approved for § 182.720(e).

(2) SAE J-1928, Devices Providing Backfire Flame Control for Gasoline Engines in Marine Applications, August 1989 ("SAE J-1928"), IBR approved for § 182.415(c).

(3) SAE J-1942, Hose and Hose Assemblies for Marine Applications, 1992 ("SAE J-1942"), IBR approved for § 182.720(e).

(m) UL (formerly Underwriters Laboratories), 12 Laboratory Drive, P.O. Box 13995, Research Triangle Park, NC 27709, 919-549-1400, <http://www.ul.com>.

(1) UL 19—Standard for Safety for Lined Fire Hose and Hose Assemblies, Twelfth Edition, approved November 30, 2001, IBR approved for § 181.320(b).

(2) UL 174-1989, as amended through June 23, 1994, Household Electric Storage Tank Heaters ("UL 174"), IBR approved for § 182.320(a).

(3) UL 217-1998, Single and Multiple Station Smoke Detectors ("UL 217"), IBR approved for § 181.450(a).

(4) UL 486A-1992, Wire Connectors and Soldering Lugs For Use With Copper Conductors ("UL 486A"), IBR approved for § 183.340(i).

(5) UL 489-1995, Molded-Case Circuit Breakers and Circuit Breaker Enclosures ("UL 489"), IBR approved for § 183.380(m).

(6) UL 595-1991, Marine Type Electric Lighting Fixtures ("UL 595"), IBR approved for § 183.410(d).

(7) UL 710-1990, as amended through September 16, 1993, Exhaust Hoods For Commercial Cooking Equipment ("UL 710"), IBR approved for § 181.425(a).

(8) UL 1058-1989, as amended through April 19, 1994, Halogenated Agent Extinguishing System Units ("UL 1058"), IBR approved for § 181.410(g).

(9) UL 1102-1992, Non integral Marine Fuel Tanks ("UL 1102"), IBR approved for § 182.440(a).

(10) UL 1110-1988, as amended through May 16, 1994, Marine Combustible Gas Indicators ("UL 1110"), IBR approved for § 182.480(a).

(11) UL 1111-1988, Marine Carburetor Flame Arresters ("UL 1111"), IBR approved for § 182.415(c).

(12) UL 1113, Electrically Operated Pumps for Nonflammable Liquids, Marine, Third Edition (Sep. 4, 1997) ("UL 1113"), IBR approved for § 182.520(e).

(13) UL 1453-1988, as amended through June 7, 1994, Electric Booster and Commercial Storage Tank Water Heaters ("UL 1453"), IBR approved for § 182.320(a).

(14) UL 1570-1995, Fluorescent Lighting Fixtures ("UL 1570"), IBR approved for § 183.410(d).

(15) UL 1571-1995, Incandescent Lighting Fixtures ("UL 1571"), IBR approved for § 183.410(d).

(16) UL 1572-1995, High Intensity Discharge Lighting Fixtures ("UL 1572"), IBR approved for § 183.410(d).

(17) UL 1573-1995, Stage and Studio Lighting Units ("UL 1573"), IBR approved for § 183.410(d).

(18) UL 1574-1995, Track Lighting Systems ("UL 1574"), IBR approved for § 183.410(d).

## 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 detection 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; and

(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 of this chapter) as amended here:

(i) Certification or licensing by a 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 determine 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 by revising 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 chapter.

\* \* \* \* \*

■ 258. Add § 177.420 to subpart D 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 (incorporated by reference, see § 175.600 of this chapter) 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 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 chapter I, subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105; and

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

■ 261. In § 181.310—

■ 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) Spanner wrenches must be provided where a 40 millimeter (1.5 inch) diameter firehose is required by § 181.320(b). Existing vessels as of July 22, 2016 have 180 days to comply with this requirement.

**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) introductory text, 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). The revision reads as follows:



**§ 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, 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.

(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.

(d) An enclosed vehicle space must be fitted with an automatic sprinkler system that meets the requirements of 46 CFR part 76 and a fire detection and alarm system of an approved type that is installed in accordance with 46 CFR part 76.

(e) A partially enclosed vehicle space must be fitted with a manual sprinkler system that meets the requirements of 46 CFR part 76.

**§ 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 “0.624”; and remove the number “192” and add, in its place, the number “0.749”; 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 (762 meters) 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 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 chapter 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. In § 185.612—

■ a. In paragraph (d), remove the word “alarm” and add, in its place, the word “indicator”; and

■ b. Revise paragraph (e) to read as follows:

**§ 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. 2103, 2113, 3306; E.O. 12234, 45 FR 58801, 3 CFR, 1980 Comp., p. 277, sec. 1–105; Department of Homeland Security Delegation No. 0170.1(II)(92)(a), (92)(b).

■ 272. In § 188.01–3, add a sentence to the end of the section to read as follows:

**§ 188.01–3 Scope of regulations.**

\* \* \* 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. 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](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, 617–770–3000, <http://www.nfpa.org>.

(1) NFPA 10, Standard for Portable Fire Extinguishers, 2010 Edition, effective December 5, 2009, 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 of this chapter) as amended here:

(i) Certification or licensing by a 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. In paragraphs (a) and (b)—

■ i. Remove the words “and over” and add, in their place, the words “or more”; and

■ ii. Remove the word “shall.”

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

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

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

**§ 190.07–1 Application.**

\* \* \* \* \*

(e) Structural fire protection requirements in § 92.07–1(c) of this chapter 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(a) and (c) 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. 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](http://www.archives.gov/federal-register/code_of_federal_regulations/ibr_locations.html).

\* \* \* \* \*

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

(1) NFPA 13, Standard for the Installation of Sprinkler Systems, 2010 Edition, effective August 26, 2009, IBR approved 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 chapter I,

subchapter J (Electrical Engineering), especially the hazardous location electrical installation regulations in 46 CFR 111.105; and

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

■ 281. In § 193.10–5—

- a. Revise the section heading and paragraph (a);
- 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 paragraph (c), remove the word “five” and add, in its place, the word “fire”; and remove the word “shall” and add, in its place, the word “must”;

■ d. In paragraphs (d), (e), and (g), remove the word “shall” and add, in its place, the word “must”;

■ e. 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”;

- f. Revise paragraph (h); 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)”.

The revisions read as follows:

**§ 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 1/2	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 1/2	2 7/8	2 50

<sup>1</sup> On vessels of 65 feet (19.8 meters) 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.

<sup>2</sup> 75 feet (22.86 meters) of 1 1/2 inch hose and 5/8 inch nozzle may be used where specified by § 193.10–10(b) for interior locations and 50 feet (15.24 meters) of 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 ensure 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. In § 193.10–10—

- 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);
- 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 “Firehoses”;

■ 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

■ j. In paragraph (m)(4), remove the words “fire hose” wherever they appear and add, in their place, the word “firehose”.

The revision reads as follows

**§ 193.10–10 Fire hydrants and hose.**

\* \* \* \* \*

(b) In 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 (22.86 meters) 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. In paragraph (a), remove the word “shall”;
  - b. In paragraphs (b) and (c), remove the word “shall” and add, in its place, the word “must”; and
  - c. 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 rating	Quantity and location
<b>Safety Areas</b>		
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 <sup>1</sup> .....	2 in the vicinity of the exit. <sup>1</sup>
<b>Accommodations</b>		
Staterooms, toilet spaces, public spaces, offices, lockers, isolated storerooms, pantries, open decks, etc. ....	.....	None.
<b>Service Spaces</b>		
Galleys .....	40–B:C .....	1 for each 2,500 sq ft or fraction thereof.
<b>Machinery Spaces</b>		
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. <sup>2</sup>
Internal combustion or gas turbine propelling machinery spaces. ....	160–B .....	1 required. <sup>3</sup>
.....	40–B .....	1 for each 1,000 brake horsepower, but not fewer than 2 nor more than 6. <sup>4</sup>
.....	120–B .....	1 required. <sup>5,6</sup>
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.
<b>Auxiliary Spaces</b>		
Internal combustion gas turbine .....	40–B .....	1 outside the space in vicinity of the exit. <sup>6</sup>
Electric emergency motors or generators .....	40–B:C .....	1 outside the space in vicinity of the exit. <sup>7</sup>
Steam .....	.....	None required.
Trunks to machinery spaces .....	.....	None required.
Fuel tanks .....	.....	None required.
<b>Scientific Spaces</b>		
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.
<b>Spare Units</b>		
.....	2–A .....	10 percent of required units rounded up.
.....	40–B:C .....	10 percent of required units rounded up.

<sup>1</sup> For vessels on an international voyage, substitute one 40–B:C in vicinity of the exit.

<sup>2</sup> Vessels of fewer than 1,000 GT require one.

<sup>3</sup> Vessels of fewer than 1,000 GT may substitute one 120–B.

<sup>4</sup> Only one required for motorboats.

<sup>5</sup> If 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.

<sup>6</sup> Not required on vessels of fewer than 300 GT if fuel has a flash-point higher than 110 °F.

<sup>7</sup> Not 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. In § 193.50-20:
  - a. Revise the section heading;
  - b. In paragraphs (a) and (b), 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”; and
  - c. Add paragraph (c).

The revision and addition 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 August 22, 2016.**

Vessels contracted for prior to August 22, 2016, 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.

- 290. Revise § 193.50-90 to read as follows:

**§ 193.50-90 Vessels contracted for prior to March 1, 1968.**

(a) Vessels contracted for prior to March 1, 1968, must meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of § 193.50-10 must be complied with

insofar as the number and general type of equipment is concerned.

(2) Existing installations previously approved, but not meeting the applicable requirements of § 193.50-10, 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 they are in general agreement with the degree of safety prescribed by Table 193.50-10(a) of this subpart. Minor modifications may be made to the same standard as the original installation, provided that in no case will a greater departure from the standards of Table 193.50-10(a) of this subpart be permitted than presently exists.

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

Dated: June 22, 2016.

**J. G. Lantz,**  
*Director of Commercial Regulations and Standards, U. S. Coast Guard.*

[FR Doc. 2016-15229 Filed 7-21-16; 8:45 am]

**BILLING CODE 9110-04-P**