AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

CODE OF FEDERAL REGULATIONS

Title 46
Shipping

Parts 70 to 89

Revised as of October 1, 2017

Containing a codification of documents
of general applicability and future effect

As of October 1, 2017

Published by the Office of the Federal Register
National Archives and Records Administration
as a Special Edition of the Federal Register

U.S. GOVERNMENT OFFICIAL EDITION NOTICE

Legal Status and Use of Seals and Logos

The seal of the National Archives and Records Administration (NARA) authenticates the Code of Federal Regulations (CFR) as the official codification of Federal regulations established under the Federal Register Act. Under the provisions of 44 U.S.C. 1507, the contents of the CFR, a special edition of the Federal Register, shall be judicially noticed. The CFR is prima facie evidence of the original documents published in the Federal Register (44 U.S.C. 1510).

It is prohibited to use NARA's official seal and the stylized Code of Federal Regulations logo on any republication of this material without the express, written permission of the Archivist of the United States or the Archivist's designee. Any person using NARA's official seals and logos in a manner inconsistent with the provisions of 36 CFR part 1200 is subject to the penalties specified in 18 U.S.C. 506, 701, and 1017.

Use of ISBN Prefix

This is the Official U.S. Government edition of this publication and is herein identified to certify its authenticity. Use of the 0–16 ISBN prefix is for U.S. Government Publishing Office Official Editions only. The Superintendent of Documents of the U.S. Government Publishing Office requests that any reprinted edition clearly be labeled as a copy of the authentic work with a new ISBN.

GPO U.S. GOVERNMENT PUBLISHING OFFICE

U.S. Superintendent of Documents • Washington, DC 20402–0001

http://bookstore.gpo.gov

Phone: toll-free (866) 512-1800; DC area (202) 512-1800

Table of Contents

	Page
Explanation	v
Title 46:	
Chapter I—Coast Guard, Department of Homeland Security (Continued)	3
Finding Aids:	
Table of CFR Titles and Chapters	115
Alphabetical List of Agencies Appearing in the CFR	135
List of CFR Sections Affected	145

Cite this Code: CFR

To cite the regulations in this volume use title, part and section number. Thus, 46 CFR 70.01–1 *refers to title 46, part 70, section 01–1.*

Explanation

The Code of Federal Regulations is a codification of the general and permanent rules published in the Federal Register by the Executive departments and agencies of the Federal Government. The Code is divided into 50 titles which represent broad areas subject to Federal regulation. Each title is divided into chapters which usually bear the name of the issuing agency. Each chapter is further subdivided into parts covering specific regulatory areas.

Each volume of the Code is revised at least once each calendar year and issued on a quarterly basis approximately as follows:

Title 1 through Title 16.....as of January 1
Title 17 through Title 27.....as of April 1
Title 28 through Title 41.....as of July 1
Title 42 through Title 50.....as of October 1

The appropriate revision date is printed on the cover of each volume.

LEGAL STATUS

The contents of the Federal Register are required to be judicially noticed (44 U.S.C. 1507). The Code of Federal Regulations is prima facie evidence of the text of the original documents (44 U.S.C. 1510).

HOW TO USE THE CODE OF FEDERAL REGULATIONS

The Code of Federal Regulations is kept up to date by the individual issues of the Federal Register. These two publications must be used together to determine the latest version of any given rule.

To determine whether a Code volume has been amended since its revision date (in this case, October 1, 2017), consult the ''List of CFR Sections Affected (LSA),'' which is issued monthly, and the ''Cumulative List of Parts Affected,'' which appears in the Reader Aids section of the daily Federal Register. These two lists will identify the Federal Register page number of the latest amendment of any given rule.

EFFECTIVE AND EXPIRATION DATES

Each volume of the Code contains amendments published in the Federal Register since the last revision of that volume of the Code. Source citations for the regulations are referred to by volume number and page number of the Federal Register and date of publication. Publication dates and effective dates are usually not the same and care must be exercised by the user in determining the actual effective date. In instances where the effective date is beyond the cutoff date for the Code a note has been inserted to reflect the future effective date. In those instances where a regulation published in the Federal Register states a date certain for expiration, an appropriate note will be inserted following the text.

OMB CONTROL NUMBERS

The Paperwork Reduction Act of 1980 (Pub. L. 96–511) requires Federal agencies to display an OMB control number with their information collection request.

Many agencies have begun publishing numerous OMB control numbers as amendments to existing regulations in the CFR. These OMB numbers are placed as close as possible to the applicable recordkeeping or reporting requirements.

PAST PROVISIONS OF THE CODE

Provisions of the Code that are no longer in force and effect as of the revision date stated on the cover of each volume are not carried. Code users may find the text of provisions in effect on any given date in the past by using the appropriate List of CFR Sections Affected (LSA). For the convenience of the reader, a ''List of CFR Sections Affected'' is published at the end of each CFR volume. For changes to the Code prior to the LSA listings at the end of the volume, consult previous annual editions of the LSA. For changes to the Code prior to 2001, consult the List of CFR Sections Affected compilations, published for 1949-1963, 1964-1972, 1973-1985, and 1986-2000.

''[RESERVED]'' TERMINOLOGY

The term ''[Reserved]'' is used as a place holder within the Code of Federal Regulations. An agency may add regulatory information at a ''[Reserved]'' location at any time. Occasionally ''[Reserved]'' is used editorially to indicate that a portion of the CFR was left vacant and not accidentally dropped due to a printing or computer error.

INCORPORATION BY REFERENCE

What is incorporation by reference? Incorporation by reference was established by statute and allows Federal agencies to meet the requirement to publish regulations in the Federal Register by referring to materials already published elsewhere. For an incorporation to be valid, the Director of the Federal Register must approve it. The legal effect of incorporation by reference is that the material is treated as if it were published in full in the Federal Register (5 U.S.C. 552(a)). This material, like any other properly issued regulation, has the force of law.

What is a proper incorporation by reference? The Director of the Federal Register will approve an incorporation by reference only when the requirements of 1 CFR part 51 are met. Some of the elements on which approval is based are:

(a) The incorporation will substantially reduce the volume of material published in the Federal Register.

(b) The matter incorporated is in fact available to the extent necessary to afford fairness and uniformity in the administrative process.

(c) The incorporating document is drafted and submitted for publication in accordance with 1 CFR part 51.

What if the material incorporated by reference cannot be found? If you have any problem locating or obtaining a copy of material listed as an approved incorporation by reference, please contact the agency that issued the regulation containing that incorporation. If, after contacting the agency, you find the material is not available, please notify the Director of the Federal Register, National Archives and Records Administration, 8601 Adelphi Road, College Park, MD 20740-6001, or call 202-741-6010.

CFR INDEXES AND TABULAR GUIDES

A subject index to the Code of Federal Regulations is contained in a separate volume, revised annually as of January 1, entitled CFR INDEX AND FINDING AIDS. This volume contains the Parallel Table of Authorities and Rules. A list of CFR titles, chapters, subchapters, and parts and an alphabetical list of agencies publishing in the CFR are also included in this volume.

An index to the text of ''Title 3—The President'' is carried within that volume.

The Federal Register Index is issued monthly in cumulative form. This index is based on a consolidation of the ''Contents'' entries in the daily Federal Register.

A List of CFR Sections Affected (LSA) is published monthly, keyed to the revision dates of the 50 CFR titles.

REPUBLICATION OF MATERIAL

There are no restrictions on the republication of material appearing in the Code of Federal Regulations.

INQUIRIES

For a legal interpretation or explanation of any regulation in this volume, contact the issuing agency. The issuing agency's name appears at the top of odd-numbered pages.

For inquiries concerning CFR reference assistance, call 202–741–6000 or write to the Director, Office of the Federal Register, National Archives and Records Administration, 8601 Adelphi Road, College Park, MD 20740-6001 or e-mail *fedreg.info@nara.gov*.

SALES

The Government Publishing Office (GPO) processes all sales and distribution of the CFR. For payment by credit card, call toll-free, 866-512-1800, or DC area, 202-512-1800, M-F 8 a.m. to 4 p.m. e.s.t. or fax your order to 202-512-2104, 24 hours a day. For payment by check, write to: US Government Publishing Office – New Orders, P.O. Box 979050, St. Louis, MO 63197-9000.

ELECTRONIC SERVICES

The full text of the Code of Federal Regulations, the LSA (List of CFR Sections Affected), The United States Government Manual, the Federal Register, Public Laws, Public Papers of the Presidents of the United States, Compilation of Presidential Documents and the Privacy Act Compilation are available in electronic format via *www.ofr.gov*. For more information, contact the GPO Customer Contact Center, U.S. Government Publishing Office. Phone 202-512-1800, or 866-512-1800 (toll-free). E-mail, *ContactCenter@gpo.gov*.

The Office of the Federal Register also offers a free service on the National Archives and Records Administration's (NARA) World Wide Web site for public law numbers, Federal Register finding aids, and related information. Connect to NARA's web site at *www.archives.gov/federal-register*.

The e-CFR is a regularly updated, unofficial editorial compilation of CFR material and Federal Register amendments, produced by the Office of the Federal Register and the Government Publishing Office. It is available at *www.ecfr.gov*.

OLIVER A. POTTS,
Director,
Office of the Federal Register.
October 1, 2017.

THIS TITLE

Title 46—SHIPPING is composed of nine volumes. The parts in these volumes are arranged in the following order: Parts 1–40, 41–69, 70–89, 90–139, 140–155, 156–165, 166–199, 200–499, and 500 to end. The first seven volumes containing parts 1–199 comprise chapter I—Coast Guard, DHS. The eighth volume, containing parts 200—499, includes chapter II—Maritime Administration, DOT and chapter III—Coast Guard (Great Lakes Pilotage), DHS. The ninth volume, containing part 500 to end, includes chapter IV—Federal Maritime Commission. The contents of these volumes represent all current regulations codified under this title of the CFR as of October 1, 2017.

For this volume, Michele Bugenhagen was Chief Editor. The Code of Federal Regulations publication program is under the direction of John Hyrum Martinez, assisted by Stephen J. Frattini.

Title 46—Shipping

(This book contains parts 70–89)

Part

CHAPTER I—Coast Guard, Department of Homeland Security (Continued) 70

CHAPTER I—COAST GUARD, DEPARTMENT OF HOMELAND SECURITY (CONTINUED)

SUBCHAPTER H—PASSENGER VESSELS

Part		*Page*
70	General provisions	5
71	Inspection and certification	11
72	Construction and arrangement	30
76	Fire protection equipment	56
77	Vessel control and miscellaneous systems and equipment	86
78	Operations	92
80	Disclosure of safety standards and country of registry	110
81–89	[Reserved]	

SUBCHAPTER H—PASSENGER VESSELS

PART 70—GENERAL PROVISIONS

Subpart 70.01—Authority and Purpose

Sec.
70.01–1 Purpose of regulations.
70.01–7 Right of appeal.
70.01–15 OMB control numbers assigned pursuant to the Paperwork Reduction Act.

Subpart 70.05—Application

70.05–1 United States flag vessels subject to the requirements of this subchapter.
70.05–3 Foreign vessels subject to the requirements of this subchapter.
70.05–5 Specific application noted in text.
70.05–7 Ocean or unlimited coastwise vessels on inland and Great Lakes Routes.
70.05–10 Application to vessels on an international voyage.
70.05–18 Applicability to vessels operating under an exemption afforded in the Passenger Vessel Safety Act of 1993 (PSVA).
70.05–20 Gross tonnage as a criterion for requirements.
70.05–30 Combustible and flammable liquid cargo in bulk.

Subpart 70.10—Definition of Terms Used in This Subchapter

70.10–1 Definitions.

Subpart 70.15—Equivalents

70.15–1 Conditions under which equivalents may be used.

Subpart 70.20—General Marine Engineering Requirements

70.20–1 Marine engineering details.

Subpart 70.25—General Electrical Engineering Requirements

70.25–1 Electrical engineering details.

Subpart 70.28—Lifesaving Appliances and Arrangements

70.28–1 Lifesaving appliances and arrangements.

Subpart 70.35—American Bureau of Shipping's Standards

70.35–1 Standards to be used.
70.35–5 Where obtainable.

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).

SOURCE: CGFR 65–50, 30 FR 16890, Dec. 30, 1965, unless otherwise noted.

Subpart 70.01—Authority and Purpose

§ 70.01–1 Purpose of regulations.

The purpose of the regulations in this subchapter is to set forth uniform minimum requirements for passenger vessels. The regulations are necessary to carry out the provisions of law affecting passenger vessels and such regulations have the force of law. 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.

[CGFR 65–50, 30 FR 16890, Dec. 30, 1965, as amended by CGD 95–028, 62 FR 51203, Sept. 30, 1997, USCG–2012–0196; 81 FR 48251, July 22, 2016]

§ 70.01–7 Right of appeal.

Any person directly affected by a decision or action taken under this subchapter, by or on behalf of the Coast Guard, may appeal therefrom in accordance with subpart 1.03 of this chapter.

[54 FR 50380, Dec. 6, 1989]

§ 70.01–15 OMB control numbers assigned pursuant to the Paperwork Reduction Act.

(a) *Purpose*. This section collects and displays the control numbers assigned to information collection and recordkeeping requirements in this subchapter by the Office of Management and Budget (OMB) pursuant to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 *et seq.*). The Coast Guard intends that this section comply with the requirements of 44 U.S.C. 3507(f) which requires that agencies display a current control number assigned by the Director of the OMB for each approved agency information collection requirement.

(b) *Display*.

46 CFR part or section where identified or described	Current OMB control No.
§ 71.10	1625–0032
§ 71.50–5	1625–0032
§ 78.17–22	1625–0064
§ 78.17–33	1625–0064

[49 FR 38120, Sept. 27, 1984, as amended by CGD 88–072, 53 FR 34297, Sept. 6, 1988; CGD 89–037, 57 FR 41822, Sept. 11, 1992; USCG–2004–18884, 69 FR 58347, Sept. 30, 2004]

Subpart 70.05—Application

§ 70.05–1 United States flag vessels subject to the requirements of this subchapter.

(a) This subchapter is applicable to all U.S.-flag vessels indicated in Column 3 of table 2.01–7(A) that are 100 gross tons or more, except as follows:

(1) Any vessel operating exclusively on inland waters which are not navigable waters of the United States; or,

(2) Any vessel while laid up and dismantled and out of commission; or,

(3) With the exception of vessels of the U.S. Maritime Administration, any vessel with title vested in the United States and which is used for public purposes.

(b) The requirements for notification of safety standards and for safety information and country of registry in promotional literature or advertising of a domestic passenger vessel of 100 gross tons or over having berth or stateroom accommodations for 50 or more passengers are contained in part 80 of this chapter.

[CGFR 65–50, 30 FR 16890, Dec. 30, 1965]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 70.05–1, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at *www.fdsys.gov*.

§ 70.05–3 Foreign vessels subject to the requirements of this subchapter.

(a) Except as specifically noted in paragraphs (b) and (e), and (f) of this section, parts 70 to 78, inclusive, of this subchapter, shall be applicable to the extent prescribed by law to all foreign vessels of the following classifications indicated in column 4 of table 70.05–1(a) that are 100 gross tons or over:

(1) Foreign vessels which carry more than 12 passengers from any port in the United States; or,

(2) Foreign vessels, other than those mentioned in paragraph (a)(1) of this section, which carry more than 6 passengers from any port in the United States, and which are:

(i) Sailing vessels of 100 gross tons or over and not more than 700 gross tons; or,

(ii) Non-self-propelled vessels of 100 gross tons.

(b) The provisions of parts 70 to 78, inclusive, of this subchapter shall not be applicable to those foreign vessels covered by paragraph (a) of this section which are:

(1) Any vessel of a foreign nation signatory to the International Convention for Safety of Life at Sea, 1974, and which has on board a current valid safety certificate; or,

(2) Any vessel of a foreign nation having inspection laws approximating those of the United States together with reciprocal inspection arrangements with the United States, and which has on board a current valid certificate of inspection issued by its government under such arrangements.

(c) Notwithstanding the exceptions previously noted in paragraph (b) of this section, foreign vessels of novel design or construction, or whose operation involves potential unusual risks shall be subject to inspection to the extent necessary to safeguard life and property in United States' ports, as further provided by § 2.01–13 of subchapter A (Procedures Applicable to the Public) of this chapter.

(d) The requirements for notification of safety standards and for safety information and country of registry in promotional literature or advertising of a foreign passenger vessel of 100 gross tons or over having berth or stateroom accommodations for 50 or more passengers are contained in part 80 of this chapter.

(e) Notwithstanding the other provisions of this section, foreign passenger vessels of over 100 gross tons having berth or stateroom accommodations for more than 50 persons and departing a United States port with passengers who are United States nationals and

who embarked at that port shall comply with the provisions of the International Convention for Safety of Life at Sea, 1974.

(f) Notwithstanding the exceptions noted in paragraph (b) of this section, each foreign vessel must report marine casualties occurring while the vessel is in the navigable waters of the United States as required by subpart 78.07.

[CGFR 65–50, 30 FR 16890, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15280, Dec. 6, 1966; CGFR 68–65, 33 FR 19985, Dec. 28, 1968; CGFR 69–106a, 35 FR 16834, Oct. 31, 1970; CGD 72–187R, 38 FR 9081, Apr. 10, 1973; CGD 77–042, 42 FR 63643, Dec. 19, 1977; CGD 90–008, 55 FR 3066O, July 26, 1990; USCG–2014–0688, 79 FR 58281, Sept. 29, 2014]

§ 70.05–5 Specific application noted in text.

(a) At the beginning of the various parts, subparts, and sections, a more specific application is generally given for the particular portion of the text involved. This application sets forth the types, sizes, or services or vessels to which the text pertains, and in many cases limits the application of the text to vessels contracted for before or after a specific date. As used in this subchapter, the term *vessels contracted for* includes not only the contracting for the construction of a vessel, but also the contracting for a material alteration to a vessel, the contracting for the conversion of a vessel to a passenger vessel, and the changing of service or route of a vessel if such change increases or modifies the general requirements for the vessel or increases the hazards to which it might be subjected.

(b) [Reserved]

§ 70.05–7 Ocean or unlimited coastwise vessels on inland and Great Lakes Routes.

(a) Vessels inspected and certificated for ocean or unlimited coastwise routes shall be considered suitable for navigation insofar as the provisions of this subchapter are concerned on any inland route, including the Great Lakes.

(b) [Reserved]

§ 70.05–10 Application to vessels on an international voyage.

(a) Except as provided in paragraphs (b), (c), and (d) of this section, the regulations in this subchapter that apply to a vessel on an ''international voyage'' apply to a vessel that—

(1) Is mechanically propelled and carries more than 12 passengers; and

(2) Is engaged on a voyage—

(i) From a country to which the International Convention for Safety of Life at Sea, 1974, (SOLAS 74) applies, to a port outside that country or the reverse;

(ii) From any territory, including the Commonwealth of Puerto Rico, all possessions of the United States and all lands held by the United States under a protectorate or mandate, whose international relations are the responsibility of a contracting SOLAS 74 government, or which is administered by the United Nations, to a port outside that territory or the reverse; or

(iii) Between the contiguous states of the United States and the states of Hawaii or Alaska or between the states of Hawaii and Alaska.

(b) The regulations that apply to a vessel on an ''international voyage'' in this subchapter do not apply to ships engaged on a voyage solely on the Great Lakes and the St. Lawrence River as far east as a straight line drawn from Cap des Rosiers to West Point, Anticosti Island and, on the north side of Anticosti Island, the 63rd Meridian;

(c) The Commandant or his authorized representative may exempt any vessel on an international voyage from the requirements of this subchapter if the vessel—

(1) Makes a single international voyage in exceptional circumstances; and

(2) Meets safety requirements prescribed for the voyage by the Commandant.

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

[CGD 72–131R, 38 FR 29320, Oct. 24, 1973, as amended by CGD 90–008, 55 FR 30661, July 26, 1990; CGD 84–069, 61 FR 25287, May 20, 1996]

§ 70.05–18 Applicability to vessels operating under an exemption afforded in the Passenger Vessel Safety Act of 1993 (PVSA).

(a) The Passenger Vessel Safety Act of 1993 (PVSA) contained an allowance for the exemption of certain passenger vessels that are—

(1) At least 100 gross tons but less than 300 gross tons; or

(2) Former public vessels of at least 100 gross tons but less than 500 gross tons.

(b) The owner or operator of a vessel must have applied for an exemption under the PVSA by June 21, 1994, and then brought the vessel into compliance with the interim guidance in Navigation and Inspection Circular (NVIC) 7–94 not later than December 21, 1996. The PVSA exemption is valid for the service life of the vessel, as long as the vessel remains certified for passenger service. If the Certificate of Inspection (COI) is surrendered or otherwise becomes invalid (not including a term while the vessel is out of service but undergoing an inspection for recertification), the owner or operator must meet the appropriate inspection regulations to obtain a new COI without the PVSA exemption. See 46 CFR 175.118 for information about applicable regulations for vessels that operate under the PVSA exemption.

[USCG–1999–5040, 67 FR 34791, May 15, 2002]

§ 70.05–20 Gross tonnage as a criterion for requirements.

(a) The regulations in this subchapter, as well as referenced requirements in other subchapters in this chapter, take into account the passenger vessel's size, construction, and equipment, as well as its intended service on the routes or waters on which it is desired to be operated or navigated, which are indications of the hazards to which such vessel may be subjected. The Commandant's determinations in this respect for a particular passenger vessel are stipulated in a certificate of inspection, which states certain terms and conditions governing such vessel when in operation.

(b) In applying the laws and regulations to passenger vessels, one criterion for invocation of safety standards is the description of passenger vessels by relative size in gross tons. When it is determined by the Commandant that the gross register tonnage for a particular passenger vessel, which is attained by exemptions, reductions, or other devices in the basic gross tonnage formulation, will circumvent or be incompatible with the application of specific safety requirements in the passenger vessel regulations for a vessel of such physical size, the Commandant shall prescribe the regulations to be made applicable to such vessel.

(c) When the Commandant determines that the gross register tonnage is not a valid criterion for the invocation of safety requirements based on relative size, the parties involved will be informed of the determination and of the regulations applicable to such passenger vessel, and before being permitted to operate such vessel, compliance therewith shall be required. Endorsements or notations on the passenger vessel's certificate of inspection may be made as appropriate.

§ 70.05–30 Combustible and flammable liquid cargo in bulk.

NOTE: Requirements for double hull construction for vessels carrying oil, as defined in 33 CFR 157.03, in bulk as cargo are found in 33 CFR 157.10d.

Vessels inspected and certificated under this subchapter may carry limited quantities of combustible liquid cargo in bulk in the grades indicated, provided the certificate of inspection is endorsed to permit such carriage:

(a) Grade E in an integral tank; and

(b) Grade E in a portable tank, including a marine portable tank, in accordance with subpart 98.30 or 98.33 of this chapter.

[CGD 84–043, 55 FR 37410, Sept. 11, 1990, as amended by CGD 90–051, 57 FR 36246, Aug. 12, 1992]

Subpart 70.10—Definition of Terms Used in This Subchapter

§ 70.10–1 Definitions.

Approved means approved by the Commandant, unless otherwise stated.

Barge means any non-self-propelled vessel.

Carrying freight for hire means the carriage of any goods, wares, or merchandise, or any other freight for a consideration, whether directly or indirectly flowing to the owner, charterer, operator, agent, or any other person interested in the vessel.

Classed vessel means any vessel classed by the American Bureau of Shipping or other recognized classification society.

Coast Guard District Commander means an officer of the Coast Guard designated as such by the Commandant to command all Coast Guard activities within his or her district, which include the inspection, enforcement, and administration of Subtitle II, Title 46 U.S. Code; Title 33 U.S. Code; and regulations issued under these statutes.

Coastwise is a designation of service that includes all vessels normally navigating the waters of any ocean or the Gulf of Mexico 20 nautical miles or less offshore.

Commandant means the Commandant of the United States Coast Guard.

Consideration means an economic benefit, inducement, right, or profit including pecuniary payment accruing to an individual, person, or entity but not including a voluntary sharing of the actual expenses of the voyage by monetary contribution or donation of fuel, food, beverage, or other supplies.

Ferry means a vessel that is used on a regular schedule—

(1) To provide transportation only between places that are not more than 300 miles apart; and

(2) To transport only—

(i) Passengers; or

(ii) Vehicles, or railroad cars, that are being used, or have been used, in transporting passengers or goods.

Great Lakes is a designation of service that includes all vessels navigating the Great Lakes.

Headquarters means the Commandant (CG–ENG), Attn: Office of Design and Engineering Systems, U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue SE., Washington, DC 20593–7509.

Lakes, bays, and sounds is a designation of service that includes all vessels navigating the waters of the lakes, bays, or sounds other than the waters of the Great Lakes.

Marine inspector or *inspector* means any person from the civilian or military branch of the Coast Guard assigned under the direction of an Officer in Charge, Marine Inspection, or any other person designated to perform duties related to the inspection, enforcement, and administration of Subtitle II, Title 46 U.S. Code; Title 33 U.S. Code; and regulations issued under these statutes.

Motor vessel means any vessel more than 65 feet in length, which is propelled by machinery other than steam.

Ocean is a designation of service that includes all vessels navigating the waters of any ocean or the Gulf of Mexico more than 20-nautical miles offshore.

Officer in Charge, Marine Inspection means any person from the civilian or military branch of the Coast Guard designated as such by the Commandant and who, under the direction of the Coast Guard District Commander, is in charge of an inspection zone for the performance of duties related to the inspection, enforcement, and administration of Subtitle II, Title 46 U.S. Code; Title 33 U.S. Code; and regulations issued under these statutes.

Passenger means—

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

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

(ii) A child under the age of one.

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

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

(ii) The master; or

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

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

Passenger vessel means a vessel of at least 100 gross tons:

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

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

(3) That is a submersible vessel carrying at least one passenger for hire; or

(4) That is a ferry carrying a passenger.

Pilot boarding equipment means a pilot ladder, accommodation ladder, pilot hoist, or combination of them, as required by this subchapter.

Point of access means the place on the deck of a vessel where a person steps onto or off pilot boarding equipment.

Recognized classification society means the American Bureau of Shipping or other classification society as recognized by the Commandant.

Rivers is a designation of service that includes all vessels whose navigation is restricted to rivers and/or canals, and to such other waters as may be designated by the Coast Guard District Commander.

Sailing vessel means a vessel with no mechanical means of propulsion, all propulsive power being provided by sails.

Short international voyage means an international voyage in the course of which a vessel is not more than 200 miles from a port or place in which the passengers and crew could be placed in safety. Neither the distance between the last port of call in the country in which the voyage begins and the final port of destination, nor the return voyage, may exceed 600 miles. The final port of destination is the last port of call in the scheduled voyage at which the vessel commences its return voyage to the country in which the voyage began.

Specially suitable for vehicles is a designation used for a space that is designed for the carriage of automobiles or other self-propelled vehicles with batteries connected and fuel tanks containing gasoline on vessels on ocean or unlimited coastwise voyages. Requirements for the design and protection of spaces specially suitable for vehicles appear in subparts 72.15, 76.15, 77.05, 78.45, 78.47, and 78.83 of parts 72, 76, 77, and 78 of this subchapter. In addition, preparation of automobiles prior to carriage, with the exception of disconnecting battery cables, must be in accordance with the applicable provision of 49 CFR 176.905.

Submersible vessel means a vessel that is capable of operating below the surface of the water.

Vessel, unless otherwise noted in this subpart, includes all vessels indicated in column three of table 70.05–1(a) in § 70.05–1 that exceed 65 feet in length (measured from end-to-end over the deck, excluding sheer) and that carry more than six passengers-for-hire.

[USCG–1999–5040, 67 FR 34792, May 15, 2002, as amended by USCG–2008–1107, Dec. 4, 2009; USCG–2012–0832, 77 FR 59778, Oct. 1, 2012; USCG–2013–0671, 78 FR 60149, Sept. 30, 2013]

Subpart 70.15—Equivalents

§ 70.15–1 Conditions under which equivalents may be used.

(a) Where in this subchapter it is provided that a particular fitting, material, appliance, apparatus, or equipment, or type thereof, shall be fitted or carried in a vessel, or that any particular provision shall be made or arrangement shall be adopted, the Commandant may accept in substitution therefor any other fitting, material, apparatus, or equipment, or type thereof, or any other provision or arrangement: *Provided*, That he shall have been satisfied by suitable trials that the fitting, material, appliance, apparatus, or equipment, or type thereof, or the provision or arrangement shall be at least as effective as that specified in this subchapter.

(b) In any case where it is shown to the satisfaction of the Commandant that the use of any particular equipment, apparatus, or arrangement not specifically required by law is unreasonable or impracticable, the Commandant may permit the use of alternate equipment, apparatus, or arrangement to such an extent and upon such conditions as will insure, to his satisfaction, a degree of safety consistent with the minimum standards set forth in this subchapter.

Subpart 70.20—General Marine Engineering Requirements

§ 70.20–1 Marine engineering details.

All marine engineering details such as piping, valves, fittings, boilers, pressure vessels, etc., and their appurtenances installed on the vessel, shall be designed, constructed, and installed in accordance with the provisions of subchapter F (Marine Engineering) of this chapter.

Subpart 70.25—General Electrical Engineering Requirements

§ 70.25–1 Electrical engineering details.

All electrical engineering details and installations shall be designed and installed in accordance with subchapter J (Electrical Engineering) of this chapter.

Subpart 70.28—Lifesaving Appliances and Arrangements

§ 70.28–1 Lifesaving appliances and arrangements.

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

[CGD 84–069, 61 FR 25287, May 20, 1996]

Subpart 70.35—American Bureau of Shipping's Standards

§ 70.35–1 Standards to be used.

(a) Where in this subchapter an item, or method of construction, or testing is required to meet the standards established by the American Bureau of Shipping, the current standards in effect at the time of construction of the vessel, or otherwise as applicable, shall be used. The current standards of other recognized classification societies may also be accepted upon approval by the Commandant.

(b) [Reserved]

§ 70.35–5 Where obtainable.

(a) The standards established by the American Bureau of Shipping are usually published annually and may be purchased from the American Bureau of Shipping, ABS Plaza, 16855 Northchase Drive, Houston, TX 77060. These standards may also be examined at Coast Guard Headquarters. Contact Commandant (CG–5PS), Attn: Director of Commercial Regulations, U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue, SE., Washington, DC 20593-7509, or contact the office of any Coast Guard District Commander or Officer in Charge, Marine Inspection.

(b) [Reserved]

[CGFR 65–50, 30 FR 16890, Dec. 30, 1965]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §70–35–5, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and at *www.fdsys.gov*.

PART 71—INSPECTION AND CERTIFICATION

Subpart 71.01—General Provisions; Certificate of Inspection

Sec.
71.01–1 Preemptive effect.
71.01–2 When required.
71.01–5 Posting.
71.01–10 Period of validity.
71.01–15 Temporary certificate.
71.01–20 Expired certificate.

Subpart 71.05—Permit To Proceed to Another Port for Repair

71.05–1 When issued.
71.05–5 To whom issued.
71.05–10 Conditions of permit.
71.05–15 Posting.

Subpart 71.10—Permit To Engage in Excursions

71.10–1 When issued.
71.10–5 To whom issued.
71.10–10 Conditions of permit.
71.10–15 Posting.

Subpart 71.15—Inspection of Vessels

71.15–1 Standards in inspection of hulls, boilers, and machinery.
71.15–5 Alternate compliance.

Subpart 71.20—Initial Inspection

71.20–1 Prerequisite of certificate of inspection.
71.20–5 When made.
71.20–10 Plans.
71.20–15 Scope of inspections.

71.20–20 Fire detecting and extinguishing equipment.

Subpart 71.25—Annual Inspection

71.25–1 Prerequisite of reissuance of certificate of inspection.
71.25–3 Incorporation by reference.
71.25–5 When made.
71.25–10 Scope of inspections.
71.25–15 Lifesaving equipment.
71.25–20 Fire detection and extinguishing equipment.
71.25–25 Hull equipment.
71.25–30 [Reserved]
71.25–35 Marine engineering equipment.
71.25–37 Pollution prevention.
71.25–40 Sanitary inspection.
71.25–45 Fire hazards.
71.25–50 Inspector not limited.

Subpart 71.30—Reinspection

71.30–1 When made.
71.30–5 Scope.
71.30–10 Inspector not limited.

Subpart 71.40—Inspection After Accident

71.40–1 General or partial survey.

Subpart 71.45—Sanitary Inspections

71.45–1 When made.

Subpart 71.50—Drydocking

71.50–1 Definitions relating to hull examinations.
71.50–3 Drydock examination, internal structural examination, underwater survey, and alternate hull exam intervals.
71.50–5 Underwater Survey in Lieu of Drydocking (UWILD).
71.50–15 Description of the Alternate Hull Examination (AHE) Program for certain passenger vessels.
71.50–17 Eligibility requirements for the Alternative Hull Examination (AHE) Program for certain passenger vessels.
71.50–19 The Alternative Hull Examination (AHE) Program application.
71.50–21 Preliminary examination requirements.
71.50–23 Pre-survey meeting.
71.50–25 Alternative Hull Examination (AHE) procedure.
71.50–27 Alternative Hull Examination (AHE) Program options: Divers or underwater remotely operated vehicle (ROV).
71.50–29 Hull examination reports.
71.50–31 Continued participation in the Alternative Hull Examination (AHE) Program.
71.50–35 Notice and plans required.

Subpart 71.53—Integral Fuel Oil Tank Examinations

71.53–1 When required.

Subpart 71.55—Repairs and Alterations

71.55–1 Permission required.
71.55–5 Inspection required.

Subpart 71.60—Special Operating Requirements

71.60–1 Inspection and testing required when making alterations, repairs, or other such operations involving riveting, welding, burning or like fire-producing actions.

Subpart 71.65—Plan Approval

71.65–1 General.
71.65–5 Plans and specifications required for new construction.
71.65–10 Plans required for alterations of existing vessels.
71.65–15 Procedure for submittal of plans.
71.65–20 Number of plans required.

Subpart 71.75—Certificates Under the International Convention for Safety of Life at Sea, 1974

71.75–1 Application.
71.75–5 Passenger Ship Safety Certificate.
71.75–10 Exemption Certificate.
71.75–13 Safety Management Certificate.
71.75–15 Posting of Convention certificates.
71.75–20 Duration of certificates.

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.

SOURCE: CGFR 65–50, 30 FR 16895, Dec. 30, 1965, unless otherwise noted.

Subpart 71.01—General Provisions; Certificate of Inspection

§ 71.01–1 Preemptive effect.

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

[USCG–2006–24797, 77 FR 33874, June 7, 2012]

§ 71.01–2 When required.

(a) Except as noted in this subpart or subpart 71.05, no vessel subject to inspection and certification shall be operated without a valid certificate of inspection.

(b) [Reserved]

[CGFR 65–50, 30 FR 16895, Dec. 30, 1965. Redesignated at USCG–2006–24797, 77 FR 33874, June 7, 2012]

§ 71.01–5 Posting.

The certificate of inspection shall be displayed under glass in a conspicuous place where observation by the passengers is likely.

[CGD 72–104R, 37 FR 14233, July 18, 1972]

§ 71.01–10 Period of validity.

(a) Certificates of inspection will be issued for a period of 1 year. Application may be made by the master, owner, or agent for inspection and issuance of a new certificate of inspection at any time within the period of validity of the current certificate.

(b) Certificates of inspection may be revoked or suspended by the Coast Guard where such process is authorized by law. This may occur if the vessel does not meet the requirements of law or regulations in this chapter or if there is a failure to maintain the safety requirements requisite to the issuance of a certificate of inspection.

[CGFR 68–82, 33 FR 18899, Dec. 18, 1968, as amended by CGD 95–012, 60 FR 48051, Sept. 18, 1995; CGD 95–028, 62 FR 51203, Sept. 30, 1997]

§ 71.01–15 Temporary certificate.

(a) If necessary to prevent delay of the vessel, a temporary certificate of inspection, Form CG-854, shall be issued pending the issuance and delivery of the regular certificate of inspection. Such temporary certificate shall be carried in the same manner as the regular certificate and shall in all ways be considered the same as the regular certificate of inspection which it represents.

(b) [Reserved]

§ 71.01–20 Expired certificate.

(a) Nothing in this subpart shall prevent a vessel upon a regularly established line from a port in the United States to a port of a foreign country not contiguous to the United States whose certificate of inspection expires at sea or while said vessel is in a foreign port or a port of Hawaii from lawfully completing her voyage without the valid certificate of inspection or temporary certificate required by this subpart: *Provided*, That the voyage shall be completed within 30 days after the expiration of the certificate of inspection. No such vessel shall depart if its certificate of inspection will expire within 15 days of the date of sailing.

(b) [Reserved]

Subpart 71.05—Permit To Proceed to Another Port for Repair

§ 71.05–1 When issued.

(a) The Officer in Charge, Marine Inspection, may issue a permit to proceed to another port for repair, Form CG–948, to a vessel, if in his judgment it can be done with safety, even if the certificate of inspection of the vessel has expired or is about to expire.

(b) [Reserved]

§ 71.05–5 To whom issued.

(a) Such permit will only be issued upon the written application of the master, owner, or agent of the vessel.

(b) [Reserved]

§ 71.05–10 Conditions of permit.

(a) The permit will state upon its face the conditions under which it is issued and whether or not the vessel is permitted to carry freight or passengers. Passengers may not be carried if the certificate of inspection has expired, except as provided under § 71.01–20.

(b) [Reserved]

§ 71.05–15 Posting.

(a) The permit shall be carried in a manner similar to that described in § 71.01–5 for a certificate of inspection.

(b) [Reserved]

Subpart 71.10—Permit To Engage in Excursions

§ 71.10–1 When issued.

(a) The Officer in Charge, Marine Inspection, may issue a permit to carry additional passengers on an excursion, Form CG-949, if after personally inspecting the vessel, it can, in his judgment, be done with safety.

(b) [Reserved]

§ 71.10–5 To whom issued.

(a) Such permit will only be issued upon the written application of the master, owner, or agent of the vessel.

(b) [Reserved]

§ 71.10–10 Conditions of permit.

(a) The permit will state upon its face the conditions under which it is issued, the number of extra passengers the vessel may carry, any additional lifesaving or safety equipment which will be required, the route for which the permit is granted, and the dates on which the permit will be valid.

(b) [Reserved]

§ 71.10–15 Posting.

(a) The permit when used, shall be carried in addition to the certificate of inspection and shall be carried in a manner similar to that described in § 71.01–5 for a certificate of inspection.

(b) [Reserved]

Subpart 71.15—Inspection of Vessels

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

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

[CGD 84–069, 61 FR 25287, May 20, 1996]

§ 71.15–5 Alternate compliance.

(a) In place of compliance with other applicable provisions of this subchapter, the owner or operator of a vessel subject to plan review and inspection under this subchapter for initial issuance or renewal of a Certificate of Inspection may comply with the Alternate Compliance Program provisions of part 8 of this chapter.

(b) For the purposes of this section, a list of authorized classification societies, including information for ordering copies of approved classification society rules and supplements, is available at Coast Guard Headquarters. Contact Commandant (CG–ENG), Attn: Office of Design and Engineering Systems, U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue SE., Washington, DC 20593–7509; telephone 202–372–1372 or fax 202–372–1925. Approved classification society rules and supplements are incorporated by reference into 46 CFR 8.110(b).

[CGD 95–010, 62 FR 67536, Dec. 24, 1997, as amended by USCG–1999–5004, 64 FR 30439, June 8, 1999; USCG–2004–18884, 69 FR 58347, Sept. 30, 2004; USCG–2006–25697, 71 FR 55746, Sept. 25, 2006; USCG–2009–0702, 74 FR 49231, Sept. 25, 2009;USCG–2012–0832, 77 FR 59779, Oct. 1, 2012; USCG–2013–0671, 78 FR 60150, Sept. 30, 2013]

Subpart 71.20—Initial Inspection

§ 71.20–1 Prerequisite of certificate of inspection.

(a) The initial inspection is a prerequisite of the issuance of the original certificate of inspection.

(b) [Reserved]

§ 71.20–5 When made.

(a) The original inspection will only be made upon the written application of the owner or builder of the vessel to the Officer in Charge, Marine Inspection, on Form CG-3752, application for inspection of U.S. vessel, at or nearest the port where the vessel is located.

(b) [Reserved]

§ 71.20–10 Plans.

(a) Before application for inspection is made and before construction is started, the owner or builder shall have plans indicating the proposed arrangement and construction of the vessel approved by the Commandant. The procedure for submitting plans and the list of plans to be supplied is set forth in subpart 71.65.

(b) [Reserved]

§ 71.20–15 Scope of inspections.

The initial inspection, which may consist of a series of inspections during the construction of a vessel, shall include a complete inspection of the structure, including the outside of the vessel's bottom, the machinery, unfired pressure vessels, equipment and the inside and outside of the boilers. The inspection shall be such as to insure that the arrangements, material, and scantlings of the structure, boilers and other pressure vessels and their appurtenances, piping, main and auxiliary machinery, electrical installations, lifesaving appliances, fire-detecting and extinguishing equipment, pilot boarding equipment, pollution prevention equipment and other equipment fully comply with the applicable regulations for such vessel and are in accordance with approved plans, and determine that the vessel is in possession of a valid certificate issued by the Federal Communications Commission, if any. The inspection shall be such as to ensure that the workmanship of all parts of the vessel and its equipment is in all respects satisfactory and that the vessel is provided with lights, means of making sound signals, and distress signals as required by applicable statutes and regulations.

[CGFR 68–32, 33 FR 5715, Apr. 12, 1968, as amended by CGD 82–036, 48 FR 654, Jan. 6, 1983; CGD 79–032, 49 FR 25455, June 21, 1984; CGD 95–012, 60 FR 48051, Sept. 18, 1995]

§ 71.20–20 Specific tests and inspections.

The applicable tests and inspections relating to annual inspection as set forth in subpart 71.25 shall be made at this time. In addition, the following specific tests and inspections shall be made by the inspector:

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

(b) Installation of carbon dioxide or clean agent extinguishing piping in accordance with 46 CFR 76.15–15 and 46 CFR subpart 95.16.

(c) For inspection procedures of marine engineering equipment and systems, see subchapter F (Marine Engineering) of this chapter.

(d) For inspection procedures of electrical engineering equipment and systems, see subchapter J (Electrical Engineering) of this chapter.

(e) For inspection and testing standards of structural subdivision integrity, see § 72.01–25 of this subchapter.

(f) For inspection and testing of watertight doors, see § 170.270 of this chapter.

[CGFR 65–50, 30 FR 16895, Dec. 30, 1965, as amended by CGD 79–023, 48 FR 51007, Nov. 4, 1983; CGD 84–069, 61 FR 25287, May 20, 1996; USCG–2006–24797, 77 FR 33874, June 7, 2012]

Subpart 71.25—Annual Inspection

§ 71.25–1 Prerequisite of reissuance of certificate of inspection.

(a) The annual inspection is a prerequisite of the reissuance of a certificate of inspection.

(b) [Reserved]

§ 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*.

(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]

[USCG–2012–0196, 81 FR 48251, July 22, 2016]

§ 71.25–5 When made.

(a) The annual inspection will be made only upon the written application of the master, owner, or agent of the vessel on Form CG–3752, Application for Inspection of U.S. Vessel, to the Officer in Charge, Marine Inspection, at or nearest the port where the vessel is to be inspected.

(b) You must submit your application for the annual inspection at least 30 days before your current certificate of inspection expires.

[CGFR 65–50, 30 FR 16895, Dec. 30, 1965, as amended by USCG–1999–4976, 65 FR 6501, Feb. 9, 2000]

§ 71.25–10 Scope of inspections.

The annual inspection shall include an inspection of the structure, boilers, and other pressure vessels, machinery and equipment. The inspection shall be such as to insure that the vessel, as regards the structure, boilers and other pressure vessels, and their appurtenances, piping, main and auxiliary machinery, electrical installations, life-saving appliances, fire-detecting and extinguishing equipment, pilot boarding equipment, and other equipment is in satisfactory condition and fit for the service for which it is intended, and that it complies with the applicable regulations for such vessels, and determine that the vessel is in possession of a valid certificate issued by the Federal Communications Commission, if required. The lights, means of making sound signals, and distress signals carried by the vessel shall also be subject to the above-mentioned inspection for the purpose of ensuring that they comply with the requirements of the applicable statutes and regulations.

[CGFR 68–32, 33 FR 5715, Apr. 12, 1968, as amended by CGD 82–036, 48 FR 655, Jan. 6, 1983; CGD 79–032, 49 FR 25455, June 21, 1984; CGD 95–012, 60 FR 48051, Sept. 18, 1995]

§ 71.25–15 Lifesaving equipment.

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

[CGD 84–069, 61 FR 25287, May 20, 1996]

§ 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.

TABLE 71.25–20(a)(1)

Type unit	Test
Soda acid	Discharge. Clean hose and inside of extinguisher thoroughly. Recharge.
Foam	Discharge. Clean hose and inside of extinguisher thoroughly. Recharge.
Pump tank (water or antifreeze).	Discharge. Clean hose and inside of extinguisher thoroughly. Recharge with clean water or antifreeze.
Cartridge operated (water, antifreeze or loaded stream).	Examine pressure cartridge and replace if end is punctured or if cartridge is otherwise determined to have leaked or to be in unsuitable condition. Remove liquid. Clean hose and inside of extinguisher thoroughly. Recharge with clean water, solution or antifreeze. Insert charged cartridge.
Carbon Dioxide	Weigh cylinders. Recharge if weight loss exceed 10 percent of weight of charge. Inspect hose and nozzle to be sure they are clear.[1]
Dry chemical (cartridge-operated type).	Examine pressure cartridge and replace if end is punctured or if cartridge is otherwise determined to have leaked or to be in unsuitable condition. Inspect hose and nozzle to see they are clear. Insert charged cartridge. Be sure dry chemical is free-flowing (not caked) and chamber contains full charge.

TABLE 71.25–20(a)(1)—Continued

Type unit	Test
Dry chemical (stored pressure type).	See that pressure gage is in operating range. If not, or if seal is broken, weigh or otherwise determine that full charge of dry chemical is in extinguisher. Recharge if pressure is low or if dry chemical is needed.
Vaporizing liquid[2] (pump type).	Pump a few strokes into clean pail and replace liquid. Keep water out of extinguisher or liquid. Keep extinguisher completely full of liquid.
Vaporizing liquid (stored pressure type).	See that pressure gage is in operating range. Weigh or check liquid level to determine that full charge of liquid is in extinguisher. Recharge if pressure is low or if liquid is needed.

[1] Cylinders must be tested and marked, and all flexible connections and discharge hoses of semi-portable carbon dioxide and halon extinguishers must be tested or renewed, as required by §§ 147.60 and 147.65 of this chapter.

[2] Vaporizing-liquid type fire extinguishers containing carbon tetrachloride or chlorobromomethane or other toxic vaporizing liquids must be removed from all vessels. (See § 76.50–5(e) of this subchapter.)

(2) Fixed fire extinguishing systems must be checked as noted in table 71.25–20(a)(2). In addition all parts of the fixed fire extinguishing systems must be examined for excessive corrosion and general conditions.

TABLE 71.25–20(a)(2)

Type system	Test
Foam	Systems utilizing a soda solution must have that solution replaced. In all cases, ascertain that powder is not caked.
Carbon dioxide	Weigh cylinders. Recharge cylinder if weight loss exceeds 10 percent of the weight of the 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 for damage or decay. Ensure that nozzles are unobstructed. Cylinders must be tested and marked, and all flexible connections on fixed carbon dioxide systems must be tested or renewed, as required by 46 CFR 147.60 and 147.65.
Halon 1301 and halocarbon.	Recharge or replace if weight loss exceeds 5 percent of the weight of the charge or if cylinder has a pressure gauge, recharge cylinder if pressure loss exceeds 10 percent, adjusted for temperature. 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 for damage or decay. Ensure that nozzles are unobstructed. Cylinders must be tested and marked, and all flexible connections to Halon 1301 and halocarbon cylinders must be tested or renewed, as required by 46 CFR 147.60 and 147.65 or 147.67. NOTE: Halon 1301 system approvals have expired, but existing systems may be retained if they are in good and serviceable condition to the satisfaction of the Coast Guard inspector.
Inert gas	Recharge or replace cylinder if cylinder pressure loss exceeds 5 percent of the specified gauge pressure, adjusted for temperature. Test time delays, alarms, and ventilation shutdowns with carbon dioxide, nitrogen, or other nonflammable gas as stated in the system manufacturer's instruction manual. Ensure that nozzles are unobstructed. Cylinders must be tested and marked, and all flexible connections on fixed inert extinguishers must be tested or renewed, as required by 46 CFR 147.60 and 147.66.
Water mist	Maintain system in accordance with the maintenance instructions in the system manufacturer's design, installation, operation, and maintenance manual.

(3) All fire detection and extinguishing systems, all piping controls, valves, and alarms must be checked to ascertain that the system is in operating condition. In this respect, automatic sprinkling systems must be checked by means of test stations or opening heads, smoke detection systems must be checked by introducing smoke into the accumulators, fire detection and manual alarm systems must be checked by test stations or actuating detectors or pull boxes, and steam smothering lines must be checked with at least a 50 p.s.i. air pressure with the ends capped or by blowing steam through the lines at the designed pressure.

(4) The fire main system must be operated and the pressure checked at the most remote and highest outlets. All firehose must be subjected to a test pressure equivalent to the maximum pressure to which they may be subjected in service, but not less than 100 p.s.i.

(b) [Reserved]

[CGFR 65–50, 30 FR 16895, Dec. 30, 1965, as amended by CGFR 68–32, 33 FR 5716, Apr. 12, 1968; CGD 84–044, 53 FR 7748, Mar. 10, 1988; USCG–2006–24797, 77 FR 33874, June 7, 2012; USCG–2014–0688, 79 FR 58281, Sept. 29, 2014; USCG–2012–0196; 81 FR 48252, July 22, 2016]

§ 71.25–25 Hull equipment.

(a) At each annual inspection, the inspector shall conduct the following tests and inspections of hull equipment:

(1) All subdivision bulkheads shall be examined to determine that their watertight integrity has not been impaired.

(2) All watertight doors shall be operated locally by manual power and also by hydraulic or electric power if so fitted. Where remote control is fitted, the doors shall also be operated by the remote control apparatus.

(3) All magnetically controlled fire doors shall be operated locally and by the remote control, and all automatic fire dampers shall be checked to determine that they are in an operable condition.

(4) The remote controls of all valves shall be operated.

(5) The owner, operator or master shall provide the Officer in Charge, Marine Inspection with all current valid certificates and registers of cargo gear issued by an organization recognized by the Commandant under § 31.10–16.

(b) Every acceptable cargo gear certificate and/or register shall be properly executed by a person authorized to do so and shall:

(1) Certify as to the tests and examinations conducted;

(2) Show the dates on which the tests and examinations were conducted; and,

(3) Indicate that the cargo gear described in the certificate or register complies with the standards of the organization or association authorized to issue the certificate or register.

(c) Competent persons for the purposes of this section are defined as—

(1) Surveyors of a classification society recognized by the Commandant under 46 U.S.C. 3316.

(2) Surveyors of a cargo gear organization recognized by the Commandant under § 31.10–16.

(3) Responsible officials or employees of the testing laboratories, companies, or organizations who conduct tests of pieces of loose cargo gear, wire rope, or the annealing of gear as may be required by the standards of the organization or association authorized to issue the certificate or register.

(d) The registers issued in connection with cargo gear certification must have all required entries fully completed as of the dates indicated, shall be kept current, and shall include the following:

(1) A register of the cargo handling machinery and the gear accessory thereto carried on the vessel named therein;

(2) Certification of the testing and examination of winches, derricks, and their accessory gear;

(3) Certification of the testing and examination of cranes, hoists, and their accessory gear;

(4) Certification of the testing and examination of chains, rings, hooks, shackles, swivels, and blocks;

(5) Certification of the testing and examination of wire rope;

(6) Certification of the heat treatment of chains, rings, hooks, shackles, and swivels which require such treatment; and,

(7) Certification of the annual thorough examinations of gear not required to be periodically heat treated.

[CGFR 65–50, 30 FR 16895, Dec. 30, 1965, as amended by CGD 95–028, 62 FR 51203, Sept. 30, 1997]

§ 71.25–30 [Reserved]

§ 71.25–35 Marine engineering equipment.

(a) For inspection procedures of marine engineering equipment and systems, see subchapter F. (Marine Engineering) of this chapter.

(b) [Reserved]

§ 71.25–37 Pollution prevention.

At each inspection for certification, the inspector shall examine the vessel to determine that it meets the vessel design and equipment requirements for pollution prevention in 33 CFR part 155, subpart B.

[CGD 71–161R, 37 FR 28262, Dec. 21, 1972]

§ 71.25–40 Sanitary inspection.

(a) At each annual inspection the passenger and crew quarters, toilet and washing spaces, galleys, serving pantries, lockers, etc., shall be examined by the inspector to be assured that they are in a sanitary condition.

(b) [Reserved]

§ 71.25–45 Fire hazards.

(a) At each annual inspection, the inspector shall examine the tank tons and bilges in the machinery spaces to see that there is no accumulation of oil which might create a fire hazard.

(b) [Reserved]

§ 71.25–50 Inspector not limited.

(a) Nothing in this subpart shall be construed as limiting the inspector from making such tests or inspections as he deems necessary to be assured of the safety and seaworthiness of the vessel.

(b) [Reserved]

Subpart 71.30—Reinspection

§ 71.30–1 When made.

In general, at least three reinspections shall be made on each vessel within one year. These reinspections will be made at approximately equal intervals between annual inspections. In the case of vessels with a seasonal schedule, reinspections will be made during the operating season if practicable.

[CGFR 65–50, 30 FR 16895, Dec. 30, 1965, as amended by CGD 95–028, 62 FR 51203, Sept. 30, 1997]

§ 71.30–5 Scope.

(a) The inspector shall examine all accessible parts of the vessel's hull, machinery, and equipment to be assured that it is in a satisfactory condition.

(b) In general, the scope of the reinspection shall be the same as for the annual inspection, but will be in less detail unless it is determined that major change has occurred since the last annual inspection.

§ 71.30–10 Inspector not limited.

(a) Nothing in this subpart shall be construed as limiting the inspector from making such tests or inspections as he deems necessary to be assured of the safety and seaworthiness of the vessel.

(b) [Reserved]

Subpart 71.40—Inspection After Accident

§ 71.40–1 General or partial survey.

(a) A survey, either general or partial, according to the circumstances, shall be made every time an accident occurs or a defect is discovered which affects the safety of the vessel or the efficacy or completeness of its lifesaving appliances, fire-fighting or other equipment, or whenever any important repairs or renewals are made. The survey shall be such as to insure that the necessary repairs or renewals have been effectively made, that the material and the workmanship of such repairs or renewals are in all respects satisfactory, and that the vessel complies in all respects with the regulations in this subchapter.

(b) [Reserved]

Subpart 71.45—Sanitary Inspections

§ 71.45–1 When made.

(a) An inspection of passenger and crew quarters, toilet and washing spaces, serving pantries, galleys, etc., shall be made, in general, at least once in every month. If the route of the vessel is such that it is away from a United States port for more than one month, an inspection shall be conducted at least once every trip.

(b) [Reserved]

Subpart 71.50—Drydocking

§ 71.50–1 Definitions relating to hull examinations.

As used in this part—

Adequate hull protection system means a method of protecting the vessel's hull from corrosion. It includes, as a minimum, either hull coatings and a cathodic protection (CP) system consisting of sacrificial anodes, or an impressed current CP system.

Alternative Hull Examination (AHE) Program means a program in which an

eligible vessel may receive an initial and subsequent credit hull examination through a combination of underwater surveys, internal examinations, and annual hull condition assessment.

Drydock examination means hauling out a vessel or placing a vessel in a drydock or slipway for an examination of all accessible parts of the vessel's underwater body and all through-hull fittings and appurtenances, including verification of the accuracy of draft marks if not already verified at a previous drydock examination.

Internal structural examination means an examination of the vessel while afloat or in drydock and consists of a complete examination of the vessel's main strength members, including the major internal framing, the hull plating, voids, and ballast tanks, but not including cargo, sewage, or fuel oil tanks.

Remotely operated vehicle (ROV) team, at a minimum, consist of an ROV operator, a non-destructive testing inspector, an ROV tender or mechanic, and a team supervisor who is considered by the Officer in Charge, Marine Inspection (OCMI), to have the appropriate training and experience to perform the survey and to safely operate the ROV in an effective manner. The team must also have a hull-positioning technician present. This position may be assigned to a team member already responsible for another team duty.

Shallow water is an ascertained water depth at which the uppermost deck(s) of a sunken vessel remain above the water's surface. The determination of the water's depth is made by the Officer in Charge, Marine Inspection (OCMI) who considers the vessel's stability (passenger heeling moment), the contour of the hull, the composition of the river bottom, and any other factors that would tend to prevent a vessel from resting an even keel.

Third party examiner means an entity:

(1) With a thorough knowledge of diving operations, including diving limitations as related to diver safety and diver supervision;

(2) Having a familiarity with, but not limited to, the following—

(i) The camera used during the AHE; and

(ii) The NDT equipment used during the AHE, including the effect of water clarity, and marine growth in relation to the quality of the readings obtained;

(3) Having a familiarity with the communications equipment used during the AHE;

(4) Possessing the knowledge of vessel structures, design features, nomenclature, and the applicable AHE regulations; and

(5) Able to present the Officer in Charge, Marine Inspection, with evidence of formal training, demonstrated ability, past acceptance, or a combination of these.

Underwater Survey in Lieu of Drydocking (UWILD) means a program in which an eligible vessel may alternate between an underwater survey and the required drydock examinations.

[USCG–2000–6858, 67 FR 21076, Apr. 29, 2002, as amended by USCG–2000–6858, 69 FR 47382, Aug. 5, 2004; USCG–2007–0030, 75 FR 78081, Dec. 14, 2010; USCG–2014–0688, 79 FR 58281, Sept. 29, 2014]

§ 71.50–3 Drydock examination, internal structural examination, underwater survey, and alternate hull exam intervals.

(a) If your vessel is operated on international voyages, it must undergo a drydock and internal structural examination once every 12 months unless it has been approved to undergo an underwater survey per § 71.50–5 of this part.

(b) If your vessel is operated on other than international voyages and does not meet the conditions in paragraphs (c) through (f) of this section, it must undergo a drydock and internal structural examination as follows unless it has been approved to undergo an underwater survey per § 71.50–5 of this part:

(1) Except as provided in paragraph (b)(2) of this section, vessels that operate in salt water must undergo two drydock and two internal structural examinations within any five year period. No more than three years may elapse between any two examinations.

(2) Vessels 20 years of age or older that operate in salt water and accommodate overnight passengers must undergo drydock and internal structural examinations at intervals not to exceed 18 months.

(3) Vessels that operate in fresh water at least six months in every 12 month period since the last drydock examination must undergo drydock and internal structural examinations at intervals not to exceed five years.

(c) Vessels with wooden hulls must undergo two drydock and two internal structural examinations within any five year period regardless of the type of water in which they operate. No more than three years may elapse between any two examinations.

(d) If, during an internal structural examination, damage or deterioration to the hull plating or structural members is discovered, the Officer in Charge, Marine Inspection, may require the vessel to be drydocked or otherwise taken out of service to further assess the extent of the damage and to effect permanent repairs.

(e) Each vessel which has not met the applicable examination schedules in paragraphs (a) through (d) of this section because it is on a voyage, must undergo the required examinations upon completion of the voyage.

(f) For a vessel that is eligible per § 71.50–17 and the owner opts for an alternate hull examination with the underwater survey portion conducted exclusively by divers, the vessel must undergo two alternate hull exams and two internal structural exams within any five-year period. If a vessel completes a satisfactory alternate hull exam, with the underwater survey portion conducted predominantly by an approved underwater ROV, the vessel must undergo one alternate hull and one internal structural exam, within any five-year period. The vessel may undergo a drydock exam to satisfy any of the required alternate hull exams.

(g) The Commandant (CG-CVC) may authorize extensions to the examination intervals specified in paragraph (a) through (c) of this section.

[CGD 84–024, 52 FR 39652, Oct. 23, 1987, as amended by CGD 84–024, 53 FR 32231, Aug. 24, 1988; CGD 95–072, 60 FR 50463, Sept. 29, 1995; CGD 96–041, 61 FR 50729, Sept. 27, 1996; USCG–2000–6858, 67 FR 21076, Apr. 29, 2002; USCG–2009–0702, 74 FR 49231, Sept. 25, 2009; USCG–2012–0832, 77 FR 59779, Oct. 1, 2012]

§ 71.50–5 Underwater Survey in Lieu of Drydocking (UWILD).

(a) The Officer in Charge, Marine Inspection (OCMI), may approve an underwater survey instead of a drydock examination at alternating intervals if your vessel is—

(1) Less than 15 years of age;

(2) A steel or aluminum hulled vessel;

(3) Fitted with an effective hull protection system; and

(4) Described in § 71.50–3(a) or (b).

(b) For vessels less than 15 years of age, you must submit an application for an underwater survey to the OCMI at least 90 days before your vessel's next required drydock examination. The application must include—

(1) The procedure for carrying out the underwater survey;

(2) The time and place of the underwater survey;

(3) The method used to accurately determine the diver's or remotely operated vehicle's (ROV) location relative to the hull;

(4) The means for examining all through-hull fittings and appurtenances;

(5) The means for taking shaft bearing clearances;

(6) The condition of the vessel, including the anticipated draft of the vessel at the time of survey;

(7) A description of the hull protection system; and

(8) The name and qualifications of any third party examiner.

(c) If your vessel is 15 years old or older, the cognizant District Commander for the area in which the exam is being completed, may approve an underwater survey instead of a drydock examination at alternating intervals. You must submit an application for an underwater survey to the OCMI at least 90 days before your vessel's next required drydock examination. You may be allowed this option if—

(1) The vessel is qualified under paragraphs (a)(2) through (4) of this section;

(2) Your application includes the information in paragraphs (b)(1) through (b)(8) of this section; and

(3) During the vessel's drydock examination that precedes the underwater survey, a complete set of hull gaugings was taken and they indicated that the

vessel was free from appreciable hull deterioration.

(d) After this drydock examination required in paragraph (c)(3) of this section, the OCMI submits a recommendation for future underwater surveys, the results of the hull gauging, and the results of the Coast Guards' drydock examination results to the cognizant District Commander for review.

[USCG–2000–6858, 67 FR 21077, Apr. 29, 2002]

§ 71.50–15 Description of the Alternative Hull Examination (AHE) Program for certain passenger vessels.

The Alternative Hull Examination (AHE) Program provides you with an alternative to a drydock examination by allowing your vessel's hull to be examined while it remains afloat. If completed using only divers, this program has four steps: the application process, the preliminary examination, the presurvey meeting, and the hull examination. If the vessel is already participating in the program or if a remotely operated vehicle (ROV) is used during the program, the preliminary exam step may be omitted. Once you complete these steps, the Officer in Charge, Marine Inspection (OCMI), will evaluate the results and accept the examination as a credit hull exam if the vessel is in satisfactory condition. If only divers are used for the underwater survey portion of the examination process, you may receive credit for a period of time such that subsequent AHEs would be conducted at intervals of twice in every five years, with no more than three years between any two AHEs. The OCMI may waive an underwater survey in accordance with § 71.50–29(d) provided that the interval does not exceed five years between any two underwater surveys. If an underwater ROV is used as the predominate method to examine the vessel's underwater hull plating, you may receive credit up to five years. At the end of this period, you may apply for further participation under the AHE Program.

NOTE TO § 71.50–15: The expected hull coverage when using an ROV must be at least 80 percent.

[USCG–2000–6858, 69 FR 47382, Aug. 5, 2004]

§ 71.50–17 Eligibility requirements for the Alternative Hull Examination (AHE) Program for certain passenger vessels.

(a) Your vessel may be eligible for the AHE Program if—

(1) It is constructed of steel or aluminum;

(2) It has an effective hull protection system;

(3) It has operated exclusively in fresh water since its last drydock examination;

(4) It operates in a reduced risk environment such as a river or the protected waters of a lake; and

(5) It operates exclusively in shallow water or within 0.5 nautical miles from shore.

(b) In addition to the requirements in paragraph (a), the Officer in Charge, Marine Inspection (OCMI), will evaluate the following information when determining your vessel's eligibility for the AHE Program:

(1) The overall condition of the vessel, based on its inspection history;

(2) The vessel's history of hull casualties and hull-related deficiencies; and

(3) The AHE Program application, as described in § 71.50–19 of this part.

(c) When reviewing a vessel's eligibility for the AHE program, the OCMI may modify the standards given by paragraph (a)(5) of this section where it is considered safe and reasonable to do so. In making this determination, the OCMI will consider the vessel's overall condition, its history of safe operation, and any other factors that serve to mitigate overall safety risks.

[USCG–2000–6858, 67 FR 21077, Apr. 29, 2002]

§ 71.50–19 The Alternative Hull Examination (AHE) Program application.

If your vessel meets the eligibility criteria in § 71.50–17 of this part, you may apply to the AHE Program. You must submit an application at least 90 days before the requested hull examination date to the Officer in Charge, Marine Inspection (OCMI), who will oversee the hull examination. The application must include—

(a) The proposed time and place for conducting the hull examination;

(b) The name of the participating diving contractor and underwater remotely operated vehicle (ROV) company accepted by the OCMI under § 71.50–27 of this part;

(c) The name and qualifications of the third party examiner. This person must be familiar with the inspection procedures and his or her responsibilities under this program. The OCMI has the discretionary authority to accept or deny use of any third party examiner using the criteria established in § 71.50–1 of this part;

(d) A signed statement from your vessel's master, chief engineer, or the person in charge stating the vessel meets the eligibility criteria of § 71.50–17 of this part and a description of the vessel's overall condition, level of maintenance, known or suspected damage, underwater body cleanliness (if known), and the anticipated draft of the vessel at the time of the examination;

(e) Plans or drawings that illustrate the external details of the hull below the sheer strake;

(f) A detailed plan for conducting the hull examination in accordance with §§ 71.50–25 and 71.50–27 of this part, which must address all safety concerns related to the removal of sea valves during the inspection; and

(g) A preventative maintenance plan for your vessel's hull, its related systems and equipment.

[USCG–2000–6858, 67 FR 21077, Apr. 29, 2002, as amended by USCG–2000–6858, 69 FR 47382, Aug. 5, 2004]

§ 71.50–21 Preliminary examination requirements.

(a) If you exclusively use divers to examine the underwater hull plating, you must arrange to have a preliminary examination conducted by a third party examiner, with the assistance of qualified divers. The purpose of the preliminary examination is to assess the overall condition of the vessel's hull and identify any specific concerns to be addressed during the underwater hull examination.

(b) The preliminary examination is required only upon the vessel's entry or reentry into the AHE program.

(c) If you use an underwater ROV as the predominant means to examine your vessel's hull plating, a preliminary examination and the participation of a third party examiner will not be necessary.

[USCG–2000–6858, 67 FR 21078, Apr. 29, 2002]

§ 71.50–23 Pre-survey meeting.

(a) In advance of each AHE, you must conduct a pre-survey meeting to discuss the details of the AHE procedure with the Officer in Charge, Marine Inspection (OCMI). If you exclusively use divers to examine the underwater hull plating, the third party examiner must attend the meeting and you must present the results of the preliminary examination. If you use an underwater remotely operated vehicle (ROV) as the predominant means to examine the vessel's hull plating, then the pre-survey meeting must be attended by a representative of the ROV operating company who is qualified to discuss the ROV's capabilities and limitations of your vessel's hull design and configuration.

(b) A vessel owner, operator, or designated agent must request this meeting in writing at least 30 days in advance of the examination date.

(c) The pre-survey meeting may be conducted by teleconference, if agreed to in advance by the OCMI.

[USCG–2000–6858, 67 FR 21078, Apr. 29, 2002, as amended by USCG–2000–6858, 69 FR 47382, Aug. 5, 2004]

§ 71.50–25 Alternative Hull Examination (AHE) procedure.

(a) To complete the underwater survey you must—

(1) Perform a general examination of the underwater hull plating and a detailed examination of all hull welds, propellers, tailshafts, rudders, and other hull appurtenances;

(2) Examine all sea chests;

(3) Remove and inspect all sea valves in the presence of a marine inspector once every five years;

(4) Remove all passengers from the vessel when the sea valves are being examined, if required by the Officer in Charge, Marine Inspection (OCMI);

(5) Allow access to all internal areas of the hull for examination, except internal tanks that carry fuel, sewage, or potable water. Internal tanks that

carry fuel must be examined in accordance with § 71.53–1 of this part. Internal sewage and potable water tanks may be examined visually or by non-destructive testing to the satisfaction of the attending marine inspector; and

(6) Meet the requirements in § 71.50–27 of this part.

(b) A marine inspector may examine any other areas deemed necessary by the OCMI.

(c) If the AHE reveals significant deterioration or damage to the vessel's hull plating or structural members, the OCMI must be immediately notified. The OCMI may require the vessel be drydocked or otherwise taken out of service to further assess the extent of damage or to effect permanent repairs if the assessment or repairs cannot be completed to the satisfaction of the OCMI while the vessel is waterborne.

[USCG–2000–6858, 67 FR 21078, Apr. 29, 2002, as amended by USCG–2000–6858, 69 FR 47382, Aug. 5, 2004]

§ 71.50–27 Alternative Hull Examination (AHE) program options: Divers or underwater remotely operated vehicle (ROV).

To conduct the underwater survey portion of the AHE, you may use divers or an underwater ROV.

(a) If you use divers to conduct the underwater survey, you must:

(1) Locate the vessel so the divers can work safely under the vessel's keel and around both sides. The water velocity must be safe for dive operations;

(2) Provide permanent hull markings, a temporary grid system of wires or cables spaced not more than 10 feet apart and tagged at one-foot intervals, or any other acoustic or electronic positioning system approved by the OCMI to identify the diver's location with respect to the hull, within one foot of accuracy;

(3) Take ultrasonic thickness gaugings at a minimum of 5 points on each plate, evenly spaced;

(4) Take hull plating thickness gaugings along transverse belts at the bow, stern, and midships, as a minimum. Plating thickness gaugings must also be taken along a longitudinal belt at the wind and water strake. Individual gaugings along the transverse and longitudinal belts must be spaced no more than 3 feet apart;

(5) Ensure the third party examiner observes the entire underwater examination process;

(6) Record the entire underwater survey with audio and video recording equipment and ensure that communications between divers and the third party examiner are recorded; and

(7) Use appropriate equipment, such as a clear box, if underwater visibility is poor, to provide the camera with a clear view of the hull.

(b) You may use an underwater ROV to conduct the underwater survey. The underwater ROV operating team, survey process and equipment, quality assurance methods, and the content and format of the survey report must be accepted by the Officer in Charge, Marine Inspection (OCMI) prior to the survey. If you choose this option, you must—

(1) Locate the vessel to ensure that the underwater ROV can operate effectively under the vessel's keel and around all sides;

(2) Employ divers to examine any sections of the hull and appurtenances that the underwater ROV cannot access or is otherwise unable to evaluate; and

(3) If the OCMI determines that the data obtained by the ROV, including non-destructive testing results, readability of the results, and positioning standards, will not integrate into the data obtained by the divers, then a third party examiner must be present during the diver's portion of the examination.

[USCG–2000–6858, 67 FR 21078, Apr. 29, 2002, as amended by USCG–2000–6858, 69 FR 47382, Aug. 5, 2004; USCG–2014–0688, 79 FR 58281, Sept. 29, 2014]

§ 71.50–29 Hull examination reports.

(a) If you use only divers for the underwater survey portion of the Alternative Hull Examination (AHE), you must provide the Officer in Charge, Marine Inspection (OCMI), with a written hull examination report. This report must include thickness gauging results, bearing clearances, a copy of the audio and video recordings, and any other information that will help the OCMI evaluate your vessel for a credit hull exam. The third party examiner

must sign the report and confirm the validity of its contents.

(b) If you use an underwater ROV as the predominant means to examine the vessel's underwater hull plating, you must provide the OCMI with a report in the format that is accepted by the OCMI, per § 71.50–27(b) of this part.

(c) The OCMI will evaluate the hull examination report and grant a credit hull exam if satisfied with the condition of the vessel. If approved and you exclusively use divers to examine the hull plating, you may receive a credit hull exam up to 36 months. (Underwater examinations are required twice every 5 years). If approved and you use an underwater ROV as the predominant means to examine the underwater hull plating, you may receive a credit hull exam up to 60 months (5 years).

(d) At least 60 days prior to each scheduled underwater exam, the owner may request a waiver from the OCMI if:

(1) A satisfactory exam has been completed within the last three years;

(2) The conditions during the last exam allowed at least 80 percent of the bottom surface to be viewed and recorded; and

(3) The results of the last exam indicated that an extended interval is safe and reasonable.

[USCG–2000–6858, 67 FR 21078, Apr. 29, 2002, as amended by USCG–2000–6858, 69 FR 47382, Aug. 5, 2004]

§ 71.50–31 Continued participation in the Alternative Hull Examination (AHE) program.

(a) To continue to participate in the AHE Program, vessel operators must conduct an annual hull condition assessment. At a minimum, vessel operators must conduct an internal examination and take random hull gaugings internally during the hull condition assessment, unless waived by the Officer in Charge, Marine Inspection (OCMI). If the annual hull assessment reveals significant damage or corrosion, where temporary repairs have been made, or where other critical areas of concern have been identified, the OCMI may require an expanded examination to include an underwater hull examination using divers. If an underwater examination is required, the examination must focus on areas at higher risk of damage or corrosion and must include a representative sampling of hull gaugings.

(b) If an underwater survey is required for the annual hull condition assessment, the OCMI may require the presence of a third party examiner and a written hull examination report must be submitted to the OCMI. This report must include thickness gauging results, a copy of the audio and video recordings and any other information that will help the OCMI evaluate your vessel for continued participation in the AHE program. The third party examiner must sign the report and confirm the validity of its contents.

(c) You must submit your preventive maintenance reports or checklists on an annual basis to the OCMI. These reports or checklists must conform to the plans you submitted in your application under § 71.50–19 of this part, which the OCMI approved.

(d) Prior to each scheduled annual hull condition assessment—

(1) The owner may submit to the OCMI a plan for conducting the assessment, or a request for a waiver of this requirement, no fewer than 30 days before the scheduled assessment; and

(2) The OCMI may reduce the scope or extend the interval of the assessment if the operational, casualty, and deficiency history of the vessel, along with a recommendation of the vessel's master, indicates that it is warranted.

[USCG–2000–6858, 67 FR 21078, Apr. 29, 2002, as amended by USCG–2000–6858, 69 FR 47382, Aug. 5, 2004]

§ 71.50–35 Notice and plans required.

(a) The master, owner, operator, or agent of the vessel shall notify the Officer in Charge, Marine Inspection, whenever the vessel is to be drydocked, regardless of the reason for drydocking.

(b) Each vessel, except barges, that holds a Load Line Certificate must have on board a plan showing the vessel's scantlings. This plan must be made available to the Coast Guard marine inspector whenever the vessel undergoes a drydock examination, internal structural examination or underwater survey or whenever repairs are made to the vessel's hull.

(c) Each barge that holds a Load Line Certificate must have a plan showing the barge's scantlings. The plan need not be maintained on board the barge but must be made available to the Coast Guard marine inspector whenever the barge undergoes a drydock examination, internal structural examination, or underwater survey or whenever repairs are made to the barge's hull.

[CGD 84–024, 52 FR 39652, Oct. 23, 1987. Redesignated and amended by USCG–2000–6858, 67 FR 21076, Apr. 29, 2002; USCG–2014–0688, 79 FR 58281, Sept. 29, 2014]

Subpart 71.53—Integral Fuel Oil Tank Examinations

§ 71.53–1 When required.

(a) Each fuel oil tank with at least one side integral to the vessel's hull and located within the hull (''integral fuel oil tank'') is subject to inspection as provided in this section. Each integral fuel oil tank is subject to inspection as provided in this section. The owner or operator of the vessel shall have the tanks cleaned out and gas freed as necessary to permit internal examination of the tank or tanks designated by the marine inspector. The owner or operator shall arrange for an examination of the fuel tanks of each vessel during an internal structural examination at intervals not to exceed five years.

(b) Integral non-double-bottom fuel oil tanks need not be cleaned out and internally examined if the marine inspector is able to determine by external examination that the general condition of the tanks is satisfactory.

(c) Double-bottom fuel oil tanks on vessels less than 10 years of age need not be cleaned out and internally examined if the marine inspector is able to determine by external examination that the general condition of the tanks is satisfactory.

(d) All double-bottom fuel oil tanks on vessels 10 years of age or older but less than 15 years of age need not be cleaned out and internally examined if the marine inspector is able to determine by internal examination of at least one forward double-bottom fuel oil tank, and by external examination of all other double-bottom fuel oil tanks on the vessel, that the general condition of the tanks is satisfactory.

(e) All double-bottom fuel oil tanks on vessels 15 years of age or older need not be cleaned out and internally examined if the marine inspector is able to determine by internal examination of at least one forward, one amidships, and one aft double-bottom fuel oil tank, and by external examination of all other double-bottom fuel oil tanks on the vessel, the general condition of the tanks is satisfactory.

[CGD 84–024, 52 FR 39652, Oct. 23, 1987, as amended by CGD 84–024, 53 FR 32231, Aug. 24, 1988]

Subpart 71.55—Repairs and Alterations

§ 71.55–1 Permission required.

(a) No repairs or alterations affecting the safety of the vessel with regard to the hull, machinery, or equipment, shall be made without the knowledge of the Officer in Charge, Marine Inspection.

(b) Drawings of alterations shall be approved before work is started, unless deemed unnecessary by the Officer in Charge, Marine Inspection.

(c) Drawings will not be required for repairs in kind.

§ 71.55–5 Inspection required.

(a) An inspection, either general or partial depending upon the circumstances, shall be made whenever any important repairs or alterations are undertaken.

(b) [Reserved]

Subpart 71.60—Special Operating Requirements

§ 71.60–1 Inspection and testing required when making alterations, repairs, or other such operations involving riveting, welding, burning or like fire-producing actions.

(a) The provisions of ''Standard for the Control of Gas Hazards on Vessels to be Repaired,'' NFPA No. 306, published by National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, shall be used as a guide in conducting the inspections and

issuance of certificates required by this section.

(b) Until an inspection has been made to determine that such operation can be undertaken with safety, no alterations, repairs, or other such operations involving riveting, welding, burning, or like fire-producing actions shall be made:

(1) Within or on the boundaries of cargo tanks which have been used to carry combustible liquid or chemicals in bulk; or,

(2) Within or on the boundaries of fuel tanks; or,

(3) To pipe lines, heating coils, pumps, fittings, or other appurtenances connected to such cargo or fuel tanks.

(c) Such inspections shall be made and evidenced as follows:

(1) In ports or places in the United States or its territories and possessions the inspection shall be made by a marine chemist certificated by the National Fire Protection Association; however, if the services of such certified marine chemist are not reasonably available, the Officer in Charge, Marine Inspection, upon the recommendation of the vessel owner and his contractor or their representative, shall select a person who, in the case of an individual vessel, shall be authorized to make such inspection. If the inspection indicated that such operations can be undertaken with safety, a certificate setting forth the fact in writing and qualified as may be required, shall be issued by the certified marine chemist or the authorized person before the work is started. Such qualifications shall include any requirements as may be deemed necessary to maintain, insofar as can reasonably be done, the safe conditions in the spaces certified throughout the operation and shall include such additional tests and certifications as considered required. Such qualifications and requirements shall include precautions necessary to eliminate or minimize hazards that may be present from protective coatings or residues from cargoes.

(2) When not in such a port or place, and a marine chemist or such person authorized by the Officer in Charge, Marine Inspection, is not reasonably available, the inspection shall be made by the senior officer present and a proper entry shall be made in the vessel's logbook.

(d) It shall be the responsibility of the senior officer present to secure copies of certificates issued by the certified marine chemist or such person authorized by the Officer in Charge, Marine Inspection. It shall be the responsibility of the senior officer present, insofar as the persons under his control are concerned, to maintain a safe condition on the vessel by full observance of all qualifications and requirements listed by the marine chemist in the certificate.

[CGD 84–024, 52 FR 39652, Oct. 23, 1987, as amended by CGD 95–072, 60 FR 50463, Sept. 29, 1995]

Subpart 71.65—Plan Approval

§ 71.65–1 General.

(a) The list of required plans is general in character, but includes all plans in § 71.65–5 which normally show construction and safety features coming under the cognizance of the Coast Guard. In the case of a particular vessel, all of the plans enumerated may not be applicable, and it is intended that only those plans and specifications be submitted as will clearly show the vessel's arrangement, construction and required equipment.

(b) In the list of required plans in § 71.65–5 the items which must be approved by the American Bureau of Shipping for vessels classed by that organization are indicated by an asterisk. When prints bearing record of such approval by the American Bureau of Shipping are forwarded to the Coast Guard they will in general be accepted as satisfactory except insofar as the law or the Coast Guard regulations contain requirements which are not covered by the American Bureau of Shipping.

(c) Plans and specifications for cargo gear shall be approved by either a recognized classification society or the International Cargo Gear Bureau, Inc., whose home office is located at 321 West 44th Street, New York, NY 10036; on the Internet at *http://www.icgb.com.*

[CGFR 65–50, 30 FR 16895, Dec. 30, 1965, as amended by CGD 95–028, 62 FR 51204, Sept. 30, 1997; USCG–2008–0906, 73 FR 56510, Sept. 29, 2008]

§ 71.65–5 Plans and specifications required for new construction.

(a) *General.* (1) Specifications.

(2) General Arrangement Plan of decks, holds, inner bottoms, etc., and including inboard and outboard profile.

(b) *Hull structure.*[1]

(1) *Inner Bottom Plating and Framing.

(2) *Midship Section.

(3) *Shell Plating and Framing.

(4) *Stem, Stern Frame, and Rudder.

(5) *Structural Deck Plans for Strength Decks.

(6) *Pillars and Girders.

(7) *Watertight and Oiltight Bulkheads.

(8) *Foundations for Main Machinery and Boilers.

(9) *Arrangement of Ports, Doors, and Airports in Shell Plating.

(10) *Hatch Coamings and Covers in Weather and Watertight Decks.

(11) *Details of Hinged Subdivision Watertight Doors and Operating Gear.

(12) *Scuppers and Drains Penetrating Shell Plating.

(13) *Arrangement of the cargo gear including a stress diagram. The principal details of the gear and the safe working load for each component part shall be shown.

(c) *Subdivision and stability.* Plans and calculations required by subchapter S of this chapter.

(d) *Fire control.* (1) Fire control diagram showing location and type of all required fire-screen insulation, including main fire zone and subdivisions, stairway and elevator enclosures, control space enclosures, etc., and type of all doors in such subdivisions and enclosures.

(2) Comprehensive typical details of fire-screen insulation of both vertical and horizontal surfaces, including deck coverings where used, keyed by reference numbers to the ''fire control diagram''.

(3) Ventilation diagram including dampers and other fire control features.

(4) Alarm systems.

(5) Detecting systems.

(6) Extinguishing systems, including fire main, carbon dioxide, clean agent, foam, and sprinkling systems.

(7) Supervised Patrol Route.

(e) *Marine engineering.* (1) For plans required for marine engineering equipment and systems, see subchapter F (Marine Engineering) of this chapter.

(2) [Reserved]

(f) *Electrical engineering.* (1) For plans required for electrical engineering equipment and systems, see subchapter J (Electrical Engineering) of this chapter.

(2) [Reserved]

(g) *Lifesaving equipment.* (1) These plans are to show the location and arrangement of embarkation decks, all overboard discharges and projections in way of launching lifeboats, weights of lifeboats fully equipped and loaded, working loads of davits and winches, types and sizes of falls, the manufacturer's name and identification for all equipment, and all other relevant and necessary information.

(i) Arrangement of lifeboats.

(ii) Arrangement of davits.

(iii) Location and stowage of liferafts and buoyant apparatus.

(2) [Reserved]

(h) *Crew's accommodations.* (1) Arrangement plans showing accommodations, ventilation, escapes, hospital, and sanitary facilities for all crewmembers.

(2) [Reserved]

(i) *Navigation bridge visibility.* For vessels of 100 meters (328 feet) or more in length contracted for on or after September 7, 1990, a plan must be included which shows how visibility from the navigation bridge will meet the standards contained in § 72.04–1 of this subchapter.

[CGFR 65–50, 30 FR 16895, Dec. 30, 1965, as amended by CGD 79–023, 48 FR 51007, Nov. 4, 1983; CGD 85–099, 55 FR 32247, Aug. 8, 1990; CGD 88–032, 56 FR 35824, July 29, 1991; USCG–2006–24797, 77 FR 33875, June 7, 2012]

[1] The Asterisk (*) indicates items that are approved by the American Bureau of Shipping for vessels classed by it. Items approved the American Bureau of Shipping are generally accepted as satisfactory unless the law or Coast Guard regulations contain requirements that are not covered by the American Bureau of Shipping.

§ 71.65–10 Plans required for alterations of existing vessels.

(a) In the event of alterations involving the safety of the vessel, the applicable plans shall be submitted for approval covering the proposed work, except as modified by § 71.55–1(b). The general scope of the plans shall be as noted in § 71.65–5.

(b) [Reserved]

§ 71.65–15 Procedure for submittal of plans.

(a) As the relative location of shipyards, design offices, and Coast Guard offices vary throughout the country, no specific routing will be required in the submittal of plans. In general, one of the following procedures would apply, but in a particular case, if a more expeditious procedure can be used, there will be no objection to its adoption:

(1) The plans may be submitted to the Officer in Charge, Marine Inspection, in the district in which the vessel is to be built. This procedure will be most expeditious in the case of those offices where personnel and facilities are available for examination and approval of the plans locally.

(2) The plans may be submitted by visitors directly to the Commanding Officer, Marine Safety Center, U.S. Coast Guard, 2703 Martin Luther King Jr. Avenue SE., Washington, DC 20593, or transmitted by mail to: Commanding Officer (MSC), Attn: Marine Safety Center, U.S. Coast Guard Stop 7430, 2703 Martin Luther King Jr. Avenue SE., Washington, DC 20593–7430, in a written or electronic format. Information for submitting the VSP electronically can be found at *http://www.uscg.mil/HQ/MSC*. In this case, the plans will be returned directly to the submitter, with a copy of the action being forwarded to the interested Officer in Charge, Marine Inspection.

(3) In the case of classed vessels, upon specific request by the submitter, the American Bureau of Shipping will arrange to forward the necessary plans to the Coast Guard indicating its action thereon. In this case, the plans will be returned as noted in paragraph (a)(2) of this section.

(b) [Reserved]

[CGFR 65–50, 30 FR 16895, Dec. 30, 1965, as amended by 60 FR 50463, Sept. 29, 1995; CGD 95–072, 60 FR 54106, Oct. 19, 1995; USCG–2007–29018, 72 FR 53965, Sept. 21, 2007; USCG–2009–0702, 74 FR 49231, Sept. 25, 2009; USCG–2013–0671, 78 FR 60150, Sept. 30, 2013; USCG–2016–0498, 82 FR 35091, July 28, 2017]

§ 71.65–20 Number of plans required.

(a) Three copies of each plan are normally required so that one can be returned to the submitter. If the submitter desires additional approved plans, a suitable number should be submitted to permit the desired distribution.

(b) [Reserved]

[CGFR 65–50, 30 FR 16895, Dec. 30, 1965, as amended by CGFR 69–116, 35 FR 6861, Apr. 30, 1970]

Subpart 71.75—Certificates Under the International Convention for Safety of Life at Sea, 1974

§ 71.75–1 Application.

(a) The provisions of this subpart shall apply to all vessels on or certificated for an international voyage.

(b) [Reserved]

[CGFR 65–50, 30 FR 16895, Dec. 30, 1965, as amended by USCG–2007–0030, 75 FR 78081, Dec. 14, 2010]

§ 71.75–5 Passenger Ship Safety Certificate.

(a) All vessels on or certificated for an international voyage are required to have a ‘‘ SOLAS Passenger Ship Safety Certificate.’’

(b) All such vessels shall meet the requirements of this chapter for vessels on or certificated for an international voyage in addition to the applicable requirements of SOLAS.

[CGFR 65–50, 30 FR 16895, Dec. 30, 1965, as amended by CGD 95–012, 60 FR 48051, Sept. 18, 1995; USCG–2007–0030, 75 FR 78081, Dec. 14, 2010]

§ 71.75–10 Exemption Certificate.

(a) A vessel may be exempted by the Commandant from complying with certain requirements of the Convention under his administration upon request

made in writing to him and transmitted via the Officer in Charge, Marine Inspection.

(b) When an exemption is granted to a vessel by the Commandant under and in accordance with the Convention, an Exemption Certificate describing such exemption shall be issued through the appropriate Officer in Charge, Marine Inspection, in addition to the Passenger Ship Safety Certificate.

[CGFR 65–50, 30 FR 16895, Dec. 30, 1965, as amended by CGD 95–012, 60 FR 48051, Sept. 18, 1995]

§ 71.75–13 Safety Management Certificate.

All vessels to which 33 CFR part 96 applies on an international voyage must have a valid Safety Management Certificate and a copy of their company's valid Document of Compliance certificate on board.

[CGD 95–073, 62 FR 67514, Dec. 24, 1997]

§ 71.75–15 Posting of Convention certificates.

(a) The certificates described in this subpart, or certified copies thereof, when issued to a vessel shall be posted in a prominent and accessible place on the vessel.

(b) The certificate shall be carried in a manner similar to that described in § 71.01–5 for a certificate of inspection.

§ 71.75–20 Duration of certificates.

(a) The certificates are issued for a period of not more than 12 months, with exception to a Safety Management Certificate which is issued for a period of not more than 60 months.

(b) An Exemption Certificate shall not be valid for longer than the period of the Passenger Ship Safety Certificate to which it refers.

(c) The Passenger Ship Safety Certificate may be withdrawn, revoked, or suspended at any time when it is determined the vessel is no longer in compliance with applicable requirements. (See § 2.01–70 of this chapter for procedures governing appeals.)

[CGFR 65–50, 30 FR 16895, Dec. 30, 1965, as amended by CGD 95–012, 60 FR 48051, Sept. 18, 1995; CGD 95–073, 62 FR 67514, Dec. 24, 1997]

PART 72—CONSTRUCTION AND ARRANGEMENT

Subpart 72.01—Hull Structure

Sec.
72.01–1 Application.
72.01–2 Incorporation by reference.
72.01–5 Vessels subject to load line.
72.01–10 Vessels using fuel having a flashpoint of 110 degrees F. or lower.
72.01–15 Structural standards.
72.01–20 Special consideration.
72.01–25 Additonal structural requirements.
72.01–90 Vessels contracted for prior to November 19, 1952.

Subpart 72.03—General Fire Protection

72.03–1 Application.
72.03–5 Fire hazards to be minimized.
72.03–10 Woodwork insulated from heated surfaces.
72.03–15 Lamp room construction.

Subpart 72.04—Navigation Bridge Visibility

72.04–1 Navigation bridge visibility.

Subpart 72.05—Structural Fire Protection

72.05–1 Application.
72.05–5 Definitions.
72.05–10 Type, location, and construction of fire control bulkheads and decks.
72.05–15 Ceilings, linings, trim, and decorations in accommodation spaces and safety areas.
72.05–20 Stairways, ladders, and elevators.
72.05–25 Doors, other than watertight.
72.05–30 Windows and airports.
72.05–35 Hatch covers and shifting boards.
72.05–40 Insulation, other than for structural fire protection.
72.05–45 Paint.
72.05–50 Ventilation.
72.05–55 Furniture and furnishings.
72.05–90 Vessels contracted for prior to May 26, 1965.

Subpart 72.10—Means of Escape

72.10–1 Application.
72.10–5 Two means required.
72.10–10 Location.
72.10–15 Vertical ladders not acceptable.
72.10–20 No means for locking door.
72.10–25 Stairway size.
72.10–30 Dead end corridors.
72.10–35 Public spaces.
72.10–40 Access to lifeboats.
72.10–45 Weather deck communications.
72.10–90 Vessels contracted for prior to November 19, 1952.

Subpart 72.15—Ventilation

72.15–1 Application.

72.15–5 Structural fire protection.
72.15–10 Vessels using fuel having a flashpoint of 110 degrees F. or lower.
72.15–15 Ventilation for closed spaces.
72.15–20 Ventilation for crew quarters and passenger spaces.
72.15–90 Vessels contracted for prior to November 19, 1952.

Subpart 72.20—Accomodations for Officers and Crew

72.20–1 Application.
72.20–5 Intent.
72.20–10 Location of crew spaces.
72.20–15 Construction.
72.20–20 Sleeping accommodations.
72.20–25 Washrooms and toilet rooms.
72.20–30 Messrooms.
72.20–35 Hospital space.
72.20–40 Other spaces.
72.20–45 Lighting.
72.20–50 Heating and cooling.
72.20–55 Insect screens.
72.20–90 Vessels contracted for prior to November 19, 1952.

Subpart 72.25—Passenger Accommodations

72.25–1 Application.
72.25–10 Location of passenger quarters.
72.25–15 Passenger accommodations for excursion boats, ferryboats, and passenger barges.

Subpart 72.30—Subdivision and Stability

72.30–1 Application.

Subpart 72.40—Rails and Guards

72.40–1 Application.
72.40–5 Where rails required.
72.40–10 Storm rails.
72.40–15 Vehicular ferries.
72.40–20 Guards in dangerous places.
72.40–90 Vessels contracted for prior to July 1, 1969.

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.

SOURCE: CGFR 65–50, 30 FR 16903, Dec. 30, 1965, unless otherwise noted.

Subpart 72.01—Hull Structure

§ 72.01–1 Application.

The provisions of this subpart, with the exception of § 72.01–90, shall apply to all vessels contracted for on or after November 19, 1952. Vessels contracted for prior to November 19, 1952, shall meet the requirements of § 72.01–90.

[CGD 95–028, 62 FR 51204, Sept. 30, 1997]

§ 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*.

(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]

[USCG–2012–0196, 81 FR 48252, July 22, 2016]

§ 72.01–5 Vessels subject to load line.

(a) For vessels assigned a load line, see subchapter E (Load Lines) of this chapter, for special requirements as to strength, closure of openings, etc.

(b) [Reserved]

§ 72.01–10 Vessels using fuel having a flashpoint of 110 degrees F. or lower.

(a) Where liquid fuel having a flashpoint of 110 degrees F. or lower is carried for main or auxiliary machinery or for starting purposes, such machinery and fuel tanks shall be in separate vapor tight compartments separating each from the other and from the remainder of the vessel.

(b) [Reserved]

§ 72.01–15 Structural standards.

(a) In general, compliance with the standards established by the American Bureau of Shipping, see subpart 70.35 of this subchapter, will be considered satisfactory evidence of the structural efficiency of the vessel. However, in special cases, a detailed analysis of the entire structure or some integral part may be made by the Coast Guard to determine the structural requirements.

(b) [Reserved]

§ 72.01–20 Special consideration.

(a) Special consideration will be given to the structural requirements for vessels, such as small vessels or vessels of unusual design not contemplated by the standards established by the American Bureau of Shipping, see subpart 70.35 of this subchapter.

(b) [Reserved]

§ 72.01–25 Additional structural requirements.

(a) Vessels required by part 171 of this chapter to have subdivision bulkheads, double bottoms, etc. must comply with the following structural requirements:

(1) Each watertight subdivision bulkhead, whether transverse or longitudinal, shall be constructed in such a manner that it shall be capable of supporting, with a proper margin of resistance, the pressure due to the maximum head of water which it might have to sustain in the event of damage to the vessel, but at least the pressure due to a head of water up to the margin line. The construction of the bulkheads shall be to the satisfaction of the Commandant.

(2) Steps and recesses in subdivision bulkheads shall be watertight and as strong as the bulkhead at the place where each occurs. Decks, trunks, tunnels, duct keels, ventilators, etc., that are made watertight to maintain the subdivision requirements for a vessel shall be of the same strength as the bulkhead at the corresponding levels. The means used for making them watertight and the arrangements adopted for closing openings in them shall be to the satisfaction of the Commandant. Watertight ventilators and trunks shall be carried at least up to the bulkhead deck.

(3) Where frames or beams pass through a watertight bulkhead or deck, such bulkhead or deck shall be made structurally watertight without the use of wood, cement, or similar materials.

(4) Subdivision bulkheads, including steps, recesses, trunks, tunnels, ventilators, etc., which might form part of such bulkheads, shall be thoroughly examined and hose tested upon completion of construction. The water pressure for such tests shall be at least 30 p.s.i. Testing of main compartments by filling them with water is not compulsory.

(5) The forepeak, double bottoms (including duct keels), and inner skins shall be tested with water to-a-head corresponding to the requirements of paragraph (a)(1) of this section upon completion of construction.

(6) The watertight space enclosing the stern tube shall be tested by filling with water to-a-head up to the deepest subdivision load line.

(7) Tanks which are intended to hold liquids, and which form part of the subdivision of the vessel, shall be tested for tightness upon completion of construction with water to-a-head up to the deepest subdivision load line or to-a-head corresponding to ⅔ of the depth from the top of the keel to the margin line in way of the tanks, whichever is greater; but in no case shall the test-head be less than 3 feet above the top of the tank.

(8) The tests referred to in the preceding paragraphs (a) (5), (6), and (7) of this section are for the purpose of insuring that the subdivision structural arrangements are watertight and are not regarded as a test of the fitness of any compartment for the storage of oil, fuel or for other specific purposes for which a test of a superior character may be required depending upon the height to which the liquid has access in the tank or its connections.

(b) [Reserved]

[CGFR 65–50, 30 FR 16903, Dec. 30, 1965, as amended by CGD 79–023, 48 FR 51007, Nov. 4, 1983]

§ 72.01–90 Vessels contracted for prior to November 19, 1952.

(a) Existing structure previously approved will be considered satisfactory

so long as it is maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs and alterations may be made to the same standard as the original construction.

(b) [Reserved]

[CGFR 65–50, 30 FR 16903, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15281, Dec. 6, 1966]

Subpart 72.03—General Fire Protection

§ 72.03–1 Application.

(a) The provisions of this subpart shall apply to all vessels.

(b) [Reserved]

§ 72.03–5 Fire hazards to be minimized.

(a) The general construction of the vessel shall be such as to minimize fire hazards insofar as is reasonable and practicable.

(b) [Reserved]

§ 72.03–10 Woodwork insulated from heated surfaces.

(a) Internal combustion engine exhausts, boiler and galley uptakes and similar sources of ignition shall be kept clear of and suitably insulated from any woodwork or other combustible matter.

(b) [Reserved]

§ 72.03–15 Lamp room construction.

(a) Lamp, paint, and oil lockers and similar compartments shall be constructed of steel or shall be wholly lined with metal.

(b) [Reserved]

Subpart 72.04—Navigation Bridge Visibility

§ 72.04–1 Navigation bridge visibility.

Each passenger vessel which is 100 meters (328 feet) or more in length and contracted for on or after September 7, 1990, must meet the following requirements:

(a) The field of vision from the navigation bridge, whether the vessel is in a laden or unladen condition, must be such that:

(1) From the conning position, the view of the sea surface is not obscured forward of the bow by more than the lesser of two ship lengths or 500 meters (1640 feet) from dead ahead to 10 degrees on either side of the vessel. Within this arc of visibility any blind sector caused by cargo, cargo gear, or other permanent obstruction must not exceed 5 degrees.

(2) From the conning position, the horizontal field of vision extends over an arc from at least 22.5 degrees abaft the beam on one side of the vessel, through dead ahead, to at least 22.5 degrees abaft the beam on the other side of the vessel. Blind sectors forward of the beam caused by cargo, cargo gear, or other permanent obstruction must not exceed 10 degrees each, nor total more than 20 degrees, including any blind sector within the arc of visibility described in paragraph (a)(1) of this section.

(3) From each bridge wing, the field of vision extends over an arc from at least 45 degrees on the opposite bow, through dead ahead, to at least dead astern.

(4) From the main steering position, the field of vision extends over an arc from dead ahead to at least 60 degrees on either side of the vessel.

(5) From each bridge wing, the respective side of the vessel is visible forward and aft.

(b) Windows fitted on the navigation bridge must be arranged so that:

(1) Framing between windows is kept to a minimum and is not installed immediately in front of any work station.

(2) Front windows are inclined from the vertical plane, top out, at an angle of not less than 10 degrees and not more than 25 degrees.

(3) The height of the lower edge of the front windows is limited to prevent any obstruction of the forward view previously described in this section.

(4) The height of the upper edge of the front windows allows a forward view of the horizon at the conning position, for a person with a height of eye of 1.8 meters (71 inches), when the vessel is at a forward pitch angle of 20 degrees.

(c) Polarized or tinted windows must not be fitted.

[CGD 85–099, 55 FR 32247, Aug. 8, 1990]

Subpart 72.05—Structural Fire Protection

§ 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)).

[USCG–2012–0196, 81 FR 48252, July 22, 2016]

§ 72.05–5 Definitions.

NOTE: The parenthetical number after each space refers to the applicable column and row number in tables 72.05–10 (d) through (g).

(a) *Safety areas* will be considered as including the following spaces:

(1) Control stations, i.e., spaces containing the emergency source of power, and those spaces in which a continuous watch is maintained and in which navigating, radio, or fire-control equipment is located. (1)

(2) Passenger and crew stairway and elevator enclosures. (2)

(3) Passenger and crew communicating corridors. (3)

(4) Open decks and enclosed promenades in way of lifeboat embarkation or lowering positions. (4) (See also paragraph (l) of this section.)

(b) *Accommodation spaces* will be considered as including the following spaces:

(1) Public spaces, such as halls, dining rooms, messrooms, lounges, cafes, and other similar spaces normally accessible during the voyage. (5) through (7) (Depending upon size and furnishings.)

(2) Public sales rooms and similar spaces. (6) or (7) (Depending on size.)

(3) Staterooms, including passenger and crew rooms, barber shops, beauty parlors, offices, dispensaries, etc. (5) or (6) (Depending on furnishings.)

(4) Washrooms and toilet spaces, both public and private. (8)

(5) Isolated lockers and small storerooms in accommodation areas. (6)

(6) Isolated serving pantries, etc., in accommodation areas, with incombustible furnishings. (8)

(7) Operating rooms. (8)

(8) Small laundries containing only tubs and washing machines, with no facilities for drying other than small electric driers. (8)

(9) Small cleaning gear lockers containing only slop sinks, and having no room for stowing materials other than a broom, mop, cleaning powder, soap, etc. (8)

(10) Large cleaning gear lockers having considerable stowage space. (6) or (9)

(c) *Service spaces* will be considered as including the following spaces:

(1) Motion picture projection rooms and film stowage rooms. (6) or (9)

(2) Galleys, main pantries, and storerooms, including alleyways and stairs, part of and for the exclusive use of such spaces. (9)

(3) Diet kitchens. (6) or (9) (Depending on furnishing.)

(4) Work shops (not part of machinery spaces, galleys, etc.), large laundries, drying rooms, mail and baggage rooms, etc. (9)

(5) Garbage disposal and stowage rooms, and trash stowage rooms. (9)

(6) Paint and lamp rooms, and similar spaces containing highly combustible materials. (9)

(d) *Machinery spaces*—will be considered as including the following spaces:

(1) Main machinery spaces, including trunks and casings, alleyways, gratings, and stairways, part of and for

the exclusive use of these spaces, auxiliary machinery spaces containing internal combustion machinery or other oil burning, heating, or pumping units, and fuel oil filling stations. (10)

(2) Auxiliary machinery spaces containing only pumps, tanks, electrical machinery, ventilation or air conditioning equipment, resistors, steering machinery, stabilizer machinery, etc. (12) (Where such spaces contain considerable stowage space for combustibles.) (10)

(e) *Cargo spaces* will be considered as including the following spaces:

(1) Cargo holds, lockers, and trunks, both accessible and inaccessible and including refrigerated cargo spaces and cargo oil tanks intended for the alternate carriage of dry cargo. (11)

(2) Cargo oil tanks if not intended for the alternate carriage of dry cargo. (12)

(f) *Miscellaneous spaces* will be considered as including the following spaces:

(1) Fuel and water tanks and voids. (12)

(2) Open decks and enclosed promenades except in way of lifeboat embarkation and lowering positions. (13) (See also paragraph (l) of this section.)

(3) Shaft alleys when separated from machinery spaces, and containing no space assigned for the stowage of combustibles. (12)

(g) A *standard fire test* is one which develops in the test furnace a series of time-temperature relationships as follows:

5 minutes	1,000 °F.
10 minutes	1,300 °F.
30 minutes	1,550 °F.
60 minutes	1,700 °F.

(h) *Main vertical zones* are those sections, the mean length of which does not, in general, exceed 131 feet on any one deck, into which the hull, superstructure, and deckhouses are required to be divided by fire-resisting bulkheads.

(i) Where the term *steel or other equivalent metal* is used in this part, it is intended to require a material which, by itself or due to insulation provided, has structural and integrity qualities equivalent to steel at the end of the applicable fire exposure.

(j) Working spaces will be considered as only those service and machinery spaces where personnel are normally employed as contrasted to those where personnel may occasionally visit or be employed for short periods of time.

(k) Passenger or crew corridors over 8 feet in width will be considered as public spaces for the purpose of this subpart.

(l) Spaces which might be considered as open decks due to the presence of permanent openings to the weather in one or more sides, or where any or all sides may be completely open to the weather, will be considered as interior or enclosed spaces for the purpose of this subpart if any spot on the overhead is more than 15 feet from the nearest opening to the weather. This requirement shall only apply to those portions of the space as are under a deck or canopy, but it shall not be considered as a restriction against permanent opening or a restriction against the materials used for a canopy. This paragraph shall not apply to open or enclosed promenades having a nominal width of 15 feet or less.

(m) Where balconies are installed opening into a space, the following general requirements shall be met:

(1) For the purpose of meeting main vertical zone bulkhead spacing, the length of the space to which the balcony is open will be considered as being increased by an amount equal to the gross area of the balcony divided by the average width of the space.

(2) Where balconies are formed by penetrating one or more decks, the bulkheads in the upper portion of the space are, in effect, part of a stepped or recessed deck and should be treated as such for fire control purposes. In this regard, particular attention should be given to the protection of openings with proper doors of the type indicated in § 72.05–25(b)(9).

(3) Two means of escape shall be provided for each balcony, at least one of which shall be independent of the space to which the balcony is open.

§ 72.05–10 Type, location, and construction of fire control bulkheads and decks.

(a) The hull, structural bulkheads, decks, and deckhouses shall be constructed of steel or other equivalent metal construction of appropriate scantlings.

(b) The hull, superstructure, and deck houses shall be subdivided by suitable structural steel or other equivalent metal bulkheads into main vertical zones, the mean length of which shall not, in general, exceed 131 feet on any one deck. Where practicable, the main vertical zone bulkheads shall be kept in a single vertical plane. However, on vessels designed for special purposes, such as automobile or railroad car ferries, where the installation of such bulkheads would defeat the purpose for which the vessel is intended, equivalent means for controlling and limiting a fire may be substituted if specifically approved by the Commandant.

(c) All bulkheads and decks shall be classed as A–60, A–30, A–15, A–0, B–15, B–0, or C, depending upon the type of space on each side of the bulkhead or above and below the deck.

(1) Bulkheads or decks of the ''A'' Class shall be composed of steel or equivalent metal construction, suitably stiffened and made intact with the main structure of the vessel, such as shell, structural bulkheads, and decks. They shall be so constructed that, if subjected to the standard fire test, they would be capable of preventing the passage of smoke and flame for 1 hour. In addition, they shall be so insulated with approved structural insulation, bulkhead panels, or deck covering that the average temperatures on the unexposed side would not rise more than 250 °F. above the original temperature, nor would the temperature at any one point, including any joint, rise more than 325 °F. above the original temperature, within the time listed below:

Class A–60	60 minutes.
Class A–30	30 minutes.
Class A–15	15 minutes.
Class A–0	0 minutes (i.e., no insulation requirements).

(2) Bulkheads of the ''B'' Class shall be constructed with approved incombustible materials and made intact from deck to deck (or to ceiling as provided in paragraph (h) of this section) and to shell or other boundaries. They shall be so constructed that, if subjected to the standard fire test, they would be capable of preventing the passage of flame for ½ hour. In addition, their insulation value shall be such that the average temperature of the unexposed side would not rise more than 250 °F. above the original temperature, nor would the temperature at any one point, including any joint, rise more than 405 °F. above the original temperature within the time listed below:

Class B–15	15 minutes.
Class B–0	0 minutes (i.e., no insulation requirements).

(3) Class C bulkheads or decks shall be constructed of approved incombustible materials, but need meet no requirements relative to the passage of flame nor the limiting of temperature rise.

(d) The minimum requirements for the bulkheads between the various spaces, where such bulkheads form the boundaries of main vertical zones, shall be as noted in table 72.05–10(d).

(e) The minimum requirements for the bulkheads between the various spaces, where such bulkheads do not form the boundaries of main vertical zones, shall be as noted in table 72.05–10(e).

(f) The minimum requirements for the decks between the various spaces, where such decks form the boundaries of stepped main vertical zones, shall be as noted in table 72.05–10(f).

(g) The minimum requirements for the decks between the various spaces, where such decks do not form the boundaries of stepped main vertical zones, shall be as noted in table 72.05–10(g).

TABLE 72.05–10(d)—BULKHEADS—MAIN VERTICAL ZONE

ADJACENT TO		THIS SPACE:												
		Control stations	Stairway and elevator enclosures	Corridors	Life boat embarkation or lowering stations	Staterooms and all public spaces with incombustible veneers and trim and fire resistant furnishings	Staterooms and public spaces of 500 square feet or less with combustible furnishings and isolated storerooms	Public spaces over 500 square feet with combustible furnishings	Washrooms toilet spaces, and isolated pantries with incombustible fittings	Galley, main pantries, storerooms, and workshops	Machinery spaces	Dry cargo spaces	Fuel and water tanks and voids	Open decks and enclosed promenades (not safety areas)
THIS SPACE:														
Control stations	1	A-60	A-15	A-15	A-0	A-30	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0
Stairway and elevator enclosures	2	.....	A-0	A-0	A-0	A-0	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0
Corridors	3	.....	.....	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Lifeboat embarkation or lowering stations	4	.....	.....	.....	C	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	C
Staterooms and all public spaces with incombustible veneers and trim and fire resistant furnishings	5	.....	.....	.....	.....	A-15	A-15	A-15	A-0	A-30	A-30	A-30	A-0	A-0
Staterooms and public spaces of 500 square feet or less with combustible furnishings, and isolated storerooms	6	.....	.....	.....	.....	.....	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0
Public spaces over 500 square feet with combustible furnishings	7	.....	.....	.....	.....	.....	.....	A-60	A-0	A-60	A-60	A-60	A-0	A-0
Washrooms, toilet spaces, and isolated pantries with incombustible fittings	8	.....	.....	.....	.....	.....	.....	.....	A-0	A-0	A-0	A-0	A-0	A-0
Galleys, main pantries, storerooms, and workshops	9	.....	.....	.....	.....	.....	.....	.....	.....	A-0	A-0	A-0	A-0	A-0
Machinery spaces	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	A-0	A-0	A-0	A-0
Dry cargo spaces	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A-0	A-0	A-0
Fuel and water tanks and voids	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A-0	A-0
Open decks and enclosed promenades (not safety areas)	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C

TABLE 72.05–10(e)—BULKHEADS—NOT MAIN VERTICAL ZONES

ADJACENT TO		THIS SPACE:												
		Control stations	Stairway and elevator enclosures	Corridors	Life boat embarkation or lowering stations	Staterooms and all public spaces with incombustible veneers and trim and fire resistant furnishings	Staterooms and public spaces of 500 square feet or less with combustible furnishings and isolated storerooms	Public spaces over 500 square feet with combustible furnishings	Washrooms toilet spaces, and isolated pantries with incombustible fittings	Galley, main pantries, storerooms, and workshops	Machinery spaces	Dry cargo spaces	Fuel and water tanks and voids	Open decks and enclosed promenades (not safety areas)
THIS SPACE:														
Control stations	1	B-0	A-0	A-0	A-0	A-15	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0
Stairway and elevator enclosures	2	.....	C	A-0	A-0	A-0	A-60	A-60	A-0	A-60	A-60	A-60	A-0	A-0
Corridors	3	.....	.....	C	A-0	B-0	B-0	A-0	B-0	A-0	A-0	A-0	A-0	A-0
Lifeboat embarkation or lowering stations	4	.....	.....	.....	C	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	C
Staterooms and all public spaces with incombustible veneers and trim and fire-resistant furnishings	5	.....	.....	.....	.....	B-0	B-15	A-15	B-0	A-15	A-15	A-15	A-0	A-0
Staterooms and public spaces of 500 square feet or less with combustible furnishings, and isolated storerooms	6	.....	.....	.....	.....	.....	B-15	A-30	B-0	A-60	A-60	A-60	A-0	A-0
Public spaces over 500 square feet with combustible furnishings	7	.....	.....	.....	.....	.....	.....	A-60	B-0	A-60	A-60	A-60	A-0	A-0
Washrooms, toilet spaces and isolated pantries with incombustible fittings	8	.....	.....	.....	.....	.....	.....	.....	C	A-0	A-0	A-0	A-0	A-0
Galleys, main pantries, storerooms, and workshops	9	.....	.....	.....	.....	.....	.....	.....	.....	C [1]	A-0	A-0	A-0	A-0
Machinery spaces	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	C	A-0	A-0	A-0
Dry cargo spaces	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A-0	A-0	A-0
Fuel and water tanks and voids	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	A-0	A-0
Open decks and enclosed promenades (not safety areas)	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	C

[1] Class C bulkheads may be used between two similar spaces, such as between two similar storerooms. However, a Class A-0 bulkhead shall be used between dissimilar spaces, such as a storeroom and a dissimilar workshop.

TABLE 72.05–10(f)—DECKS—MAIN VERTICAL ZONES

ADJACENT TO		THIS SPACE:												
		Control stations	Stairway and elevator enclosures	Corridors	Life boat embarkation or lowering stations	Staterooms and all public spaces with incombustible veneers and trim and fire resistant furnishings	Staterooms and public spaces of 500 square feet or less with combustible furnishings and isolated storerooms	Public spaces over 500 square feet with combustible furnishings	Washrooms toilet spaces, and isolated pantries with incombustible fittings	Galley, main pantries, storerooms, and workshops	Machinery spaces	Dry cargo spaces	Fuel and water tanks and voids	Open decks and enclosed promenades (not safety areas)
THIS SPACE:														
Control stations	1	A-60	A-60	A-30	A-0	A-15	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Stairway and elevator enclosures	2	A-15	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Corridors	3	A-30	A-0	A-0	A-0	A-0	A-0	A-15	A-0	A-0	A-0	A-0	A-0	A-0
Lifeboat embarkation or lowering stations	4	A-0	A-0	A-0	C	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	C
Staterooms and all public spaces with incombustible veneers and trim and fire resistant furnishings	5	A-30	A-30	A-15	A-0	A-15	A-15	A-30	A-0	A-0	A-0	A-0	A-0	A-0
Staterooms and public spaces of 500 square feet or less with combustible furnishings, and isolated storerooms	6	A-60	A-60	A-30	A-15	A-15	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Public spaces over 500 square feet with combustible furnishings	7	A-60	A-60	A-60	A-30	A-30	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Washrooms, toilet spaces, and isolated pantries with incombustible fittings	8	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Galleys, main pantries, storerooms, and workshops	9	A-60	A-60	A-60	A-30	A-30	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Machinery spaces	10	A-60	A-60	A-60	A-30	A-30	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Dry cargo spaces	11	A-60	A-60	A-60	A-30	A-30	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Fuel and water tanks and voids	12	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Open decks and enclosed promenades (not safety areas)	13	A-0	A-0	A-0	C	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	C

TABLE 72.05–10(g)—DECKS—NOT MAIN VERTICAL ZONES

ADJACENT TO		THIS SPACE:												
		Control stations	Stairway and elevator enclosures	Corridors	Life boat embarkation or lowering stations	Staterooms and all public spaces with incombustible veneers and trim and fire resistant furnishings	Staterooms and public spaces of 500 square feet or less with combustible furnishings and isolated storerooms	Public spaces over 500 square feet with combustible furnishings	Washrooms toilet spaces, and isolated pantries with incombustible fittings	Galley, main pantries, storerooms, and workshops	Machinery spaces	Dry cargo spaces	Fuel and water tanks and voids	Open decks and enclosed promenades (not safety areas)
THIS SPACE:														
Control stations	1	A-30	A-30	A-15	A-0	A-0	A-15	A-30	A-0	A-0	A-0	A-0	A-0	A-0
Stairway and elevator enclosures	2	A-0	C	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Corridors	3	A-15	A-0	A-0	A-0	A-0	A-0	A-15	A-0	A-0	A-0	A-0	A-0	A-0
Lifeboat embarkation or lowering stations	4	A-0	A-0	A-0	C	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	C
Staterooms and all public spaces with incombustible veneers and trim and fire resistant furnishings	5	A-15	A-15	A-0	A-0	A-0	A-0	A-15	A-0	A-0	A-0	A-0	A-0	A-0
Staterooms and public spaces of 500 square feet or less with combustible furnishings and isolated storerooms	6	A-60	A-60	A-30	A-15	A-0	A-30	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Public spaces over 500 square feet with combustible furnishings	7	A-60	A-60	A-60	A-30	A-15	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Washrooms, toilet spaces, and isolated pantries with incombustible fittings	8	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Galleys, main pantries, storerooms, and workshops	9	A-60	A-60	A-60	A-30	A-15	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Machinery spaces	10	A-60	A-60	A-60	A-30	A-15	A-60	A-60	A-0	A-0	C	A-0	A-0	A-0
Dry cargo spaces	11	A-60	A-60	A-60	A-30	A-15	A-60	A-60	A-0	A-0	A-0	A-0	A-0	A-0
Fuel and water tanks and voids	12	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0
Open decks and enclosed promenades (not safety areas)	13	A-0	A-0	A-0	C	A-0	A-0	A-0	A-0	A-0	A-0	A-0	A-0	C

(h) Where ceilings or linings are fitted, ''B'' Class bulkheads, with the exception of those forming passageways, may stop at the ceiling or lining and need not continue to the deck or shell, provided the ceiling and/or lining is erected as indicated in paragraph (j) of this section. However, draft stops meeting at least Class B–0 requirements shall be fitted not more than 45 feet apart between the ceiling or lining and the deck or shell. The space behind the linings of stairways and similar trunks shall have similar draft stops at each deck.

(i) Where Class B–15 bulkhead panels are required to go beyond the ceiling to the deck above, or beyond the lining to the shell, the portion of the bulkhead panel within the void space need only meet B–0 requirements.

(j) Where ''B'' Class panels are used, all four edges of the panel shall be retained by continuous steel or equivalent metal flanges on both sides of the panel offering at least ¾ inch coverage. The top and bottom flanges shall be so attached to the structural decks above and below so as to support and restrain the panels in the event of fire. Other methods of construction may be specifically approved by the Commandant if determined to be equivalent.

(k) Any sheathing, furring, or holding pieces incidental to the securing of structural insulation shall be of approved incombustible materials.

(l) Where linings or bulkhead panels are framed away from the shell or structural bulkheads, the deck within the void space so formed need only meet Class A-0 requirements.

(m) Decks within accommodation spaces and inside safety areas may have an overlay for leveling or finishing purposes which need not meet the requirements for an approved deck covering. Such an overlay will not be considered as giving any insulating value and may not in general exceed ⅜ of an inch in thickness. Greater thicknesses may be specifically approved by the Commandant for specific locations.

(n) Rugs and carpets may be used in addition to any deck covering or overlay installed. Rugs and carpets used in stairways or corridors shall be of wool, or other materials having equivalent fire-resistive qualities.

(o) Decking within surgical operating rooms shall be of a type which is acceptably conductive to prevent accumulation of dangerous electrostatic charges, and shall be in general agreement with ''Code for Flammable Anesthetics'' of issue in effect at the time the construction or alteration of the vessel is contracted for, published by the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269.

(p) Decks in washrooms and toilet spaces, service, cargo, and machinery spaces, open decks, exterior safety areas, and enclosed promenades may have an overlay in any thickness. This overlay need not meet the requirements for an approved deck covering.

[CGFR 65–50, 30 FR 16903, Dec. 30, 1965, as amended by CGD 95–072, 60 FR 50463, Sept. 29, 1995; CGD 95–028, 62 FR 51204, Sept. 30, 1997]

§ 72.05–15 Ceilings, linings, trim, and decorations in accommodation spaces and safety areas.

(a) Ceilings and linings and any furring incidental to their erection shall be of approved incombustible materials. Where such ceilings or linings are given credit for their insulating value in obtaining a bulkhead or deck classification they shall be of Class B–15 bulkhead panel material, and the construction shall be as required by § 72.05–10(j).

(b) Bulkheads, linings, and ceilings may have a combustible veneer within a room not to exceed 2/28 of an inch in thickness. However, combustible veneers shall not be used in passageways or stairway enclosures, or in spaces specifically restricted by tables 72.05–10 (d) through (g).

(c) The total volume of combustible face trim, moldings, and decorations, including veneers, in any compartment shall not exceed a volume equivalent to 1/10 inch veneer on the combined area of the walls of the compartment. Such trim, molding, or decorations shall not perform any structural function, and shall not be used in corridors or stairway enclosures.

(d) Combustible veneers, trim, decorations, etc., shall not be used in or extend into hidden spaces such as behind

linings or ceilings or in the matter of double bulkheads.

(e) Nothing in this subpart shall be construed as prohibiting the covering of any surface with a reasonable number of coats of paint or with a Marine Finish meeting the requirements of subpart 164.012 of subchapter Q (Specifications) of this chapter. This includes corridors, stairway enclosures, and hidden spaces.

(f) Partial bulkheads or decks used to subdivide a space for artistic treatment, privacy, etc., shall meet the requirements of Class C bulkheads.

§ 72.05–20 Stairways, ladders, and elevators.

(a)(1) Except as further noted the provisions of this section apply to all vessels.

(2) For small vessels, special consideration for relief may be given where it is shown to be unreasonable or impracticable to meet the detailed requirements for stairway size, slope, dimensioning, and landing area.

(3) Stairways, ladders, and elevators within main machinery spaces or cargo holds are not covered by the general provisions of this section, but shall meet the requirements of paragraph (b) of this section.

(b) Stairways, ladders, and elevators within main machinery spaces and cargo holds shall meet the following requirements:

(1) All stairways, ladders, and elevators shall be of steel.

(2) [Reserved]

(c) Deck penetrations shall meet the following requirements:

(1) Where a continuous vertical deck penetration for a stairway or elevator exceeds one deck, the integrity of all decks involved shall be assured by enclosure bulkheads and decks meeting the applicable requirements of § 72.05–10 (d) through (g), and by doors at all levels meeting the requirements of § 72.05–25(b)(9).

(2) Where only two decks are served by a stairway or elevator, the integrity of the deck involved may be assured as noted in the preceding paragraph. Alternately, the integrity may be maintained at one level only by means of bulkheads and by doors meeting the requirements of § 72.05–25(b)(9). If the latter method is used, it should be noted that the integrity of a deck is involved, and accordingly, the bulkhead classifications should be selected from tables 72.05–10(f) or 72.05–10(g), the spaces above or below being assumed to extend to the bulkheads and doors.

(3) Stairways or elevators to a balcony within a space need not be enclosed, provided the stairway or elevator serves only the space and the balcony within the space.

(d) For the purpose of this section, stairways are identified as follows:

Type 1—Main Vertical Zone enclosed stair towers.
Type 2—Enclosed stairways other than Type 1.
Type 3—Interior stairway not enclosed.
Type 4—Exterior stairways or exterior inclined ladders.

(e) Each Main Vertical Zone shall be served by at least one Type 1 stairway, so that independent of adjoining Main Vertical Zones, escape may be effected from any accommodation space or any other space where persons may be normally quartered or employed, to ALL other decks having any such spaces within the same Main Vertical Zone without coming out of the stair tower enclosure. Each Type 1 stairway shall give access to the Embarkation Deck or, if the Embarkation Deck does not extend to the portion of the vessel in question, to at least one weather deck from which convenient communication to the Embarkation Deck is provided by means of Type 4 stairways. In cases where a Type 1 stairway is accessible from two Main Vertical Zones, it may be considered as the required Type 1 stairway for both zones provided all boundaries of the stairway meet Main Vertical Zone requirements.

(f) Insofar as is reasonable and practicable, Types 1 and 2 stairways, and all elevator enclosures, should not give direct access to accommodations or other enclosed spaces in which a fire may originate.

(g) The furnishings for Types 1 and 2 stairways, and all elevator enclosures, shall be as set forth in § 72.05–55(c).

(h) In general, curved, spiral, or winding stairways will not be permitted. Relaxation from this requirement may be permitted, provided, in the opinion of the Commandant, the

proposed stairway is equivalent with respect to safety and dimensions to the stairways covered by this section.

(i) For all types of stairways, the stairs, platforms, and landings shall be of sufficient strength to sustain a load of 100 pounds per square foot with a factor of safety of 4 based on the ultimate strength.

(j) The stringers, treads, and all platforms and landings of all Types 1, 2, and 3 stairways shall be of solid steel construction. Risers shall be of approved incombustible material.

(k) For all types of stairways, handrails shall be fitted on both sides of the stairs. For stairways in excess of 66 inches in width, additional center handrails shall be provided. All handrails shall be fitted at a vertical height above the tread at its nosing of between 33 and 36 inches.

(l) For all types of stairways, the stair width shall be clear of all obstructions other than the handrails.

(m) Handrails and trim for all Types 1, 2, and 3 stairways shall be of approved ''incombustible materials.''

(n) For all types of stairways, there shall be no variation in the width of the stairs, the depth of the tread, or the height of the risers in any flight. Where variation in height of riser or depth of tread in different flights is necessary, such variations shall be minimized.

(o) For all types of stairways, the sum of the riser height and tread depth shall be at least 17 inches and not more than 18 inches. Types 1, 2, and 3 stairways having treads less than 10 inches in depth shall have a nosing of one inch or other means to provide additional room on the tread.

(p) All stairways shall be dimensioned in accordance with table 72.05–20(p), depending upon the type of stairway and the number of persons served.

TABLE 72.05–20(p)

Type of stairway	Primary use	Maximum angle of inclination (degrees)	Minimum stair tread width, in inches, based upon number of persons served by the stairway—Number of persons						
			1–10	11–20	21–30	31–40	41–50	51–60	Over 60
1	Passenger or crew	40	28	30	32	34	36	40	44
2 or 3	Passenger	40	28	30	32	34	36	36	36
2 or 3	Crew	50	28	30	30	30	30	30	30
4	Passenger or embarkation route.	45	28	30	30	30	30	30	30
4	Crew	55	24	24	24	24	24	24	24

(1) The maximum angle of inclination from the horizontal for any stairway shall be as given in table 72.05–20(p).

(2) For all types of stairways, the minimum width shall be determined on a deck-by-deck basis. Except as further noted, on any particular deck, only those persons on that deck using the stairway are involved in the width determination. However, once a minimum required width has been established at any one level, that width may not be reduced at any subsequent deck level in the direction of normal escape. This does not prohibit the use of stair widths exceeding the required minimum for any particular flight or flights.

(3) The various spaces shall be considered to have the number of persons in them as follows:

(i) Passenger staterooms—designed capacity.

(ii) Crew staterooms—two-thirds designed capacity.

(iii) Theaters, dining halls, and similar spaces having fixed seating—maximum seating capacity.

(iv) Lounges, club rooms, etc.—1 person for every 20 square feet of deck area.

(v) Working spaces—normal operating capacity.

(4) Type 1 stairways shall be dimensioned on a deck-by-deck basis as described in the previous subparagraphs. In determining the number of persons using a Type 1 stairway, all persons within the Main Vertical Zone or Zones

in question are assumed to be using Type 1 stairways. No consideration is given to any Type 2 or 3 stairways that may be available. If more than one Type 1 stairway serves a particular Main Vertical Zone, the persons shall be distributed between the stairways dependent upon the arrangements, and the stairways shall be dimensioned accordingly. If in the normal operation of the vessel, a Type 1 stairway is intended for a greater number of persons than given by the foregoing, the larger number shall be used.

(5) Types 2, 3, and 4 stairways shall be dimensioned on a deck-by-deck basis as described in this paragraph. In determining the number of persons using the stairways, the normal operation of the vessel shall be the determining factor. In this respect, if any particular stairway forms part of a normal debarkation route, the number of persons using the stairway for that purpose shall be considered.

(q) All types of stairways designed with a broken flight between any two decks shall conform to the additional requirements of this paragraph.

(1) Any interruption of the slope or change of direction of the stairway shall be accomplished by means of an intermediate landing of rectangular or nearly rectangular shape based on the actual dimensions of the stairs landing thereon.

(2) Each set of stairs of a broken flight shall be dimensioned independently, and shall conform to the minimum stair widths given in table 72.05–20(p).

(r) Landings for stairways shall be provided in accordance with the applicable requirements of this paragraph.

(1) For all types of stairways, at the top and bottom of each flight of stairs, there shall be a clear landing having an area at least equal to the square of the actual stair tread width.

(2) For Type 1 stairways, there shall be provided within the enclosure at each deck level a landing having a minimum clear area in square feet, exclusive of the stairs, equal to 1.2 times the number of persons from that deck using the stairway.

(3) Where an aisle around a stairway is required due to the relationship of the flights, such aisle shall have a clear width at all points at least equal to the actual stair tread width.

(s) The total clear width of doors to stairways shall be as set forth in table 72.05–20(s), and shall meet all of the other applicable requirements of this paragraph.

TABLE 72.05–20(s)

Type of stairway	Primary use	Minimum clear opening, in inches, of doors to stairways based on number of persons served by doors—Number of persons (*N*)					
		1–10	11–20	21–30	31–40	41–50	Over 50
1	Passenger or crew	28	30	32	34	36	[1] 0.75*N*
2 or 3	Passenger	28	30	32	34	36	36
2 or 3	Crew	28	30	30	30	30	30

[1] Obtain clear opening in inches by multiplying the number of persons served (*N*) by 0.75.

(1) The dimensioning of doors shall be based on the same fundamentals as described in paragraphs (p)(2) through (5) of this section for stairways. However, the number of people involved for a particular door shall be determined from the arrangements, each door being calculated independent of any other doors to the stairway at the same level.

(2) In no case shall a clear door width be less than 28 inches.

(3) On the Embarkation Deck, each Type 1 stairway shall provide at least 44 inches of exit door width to each side of the vessel. Exit may be provided directly to the weather or indirectly by passageways and/or corridors which lead to the weather.

§ 72.05–25 Doors, other than watertight.

(a) The general requirement for doors, other than watertight doors, are as follows:

(1) All doors shall be capable of operation from either side by 1 person.

(2) In public spaces, stairway enclosures, corridors, etc., all doors shall open in the direction of escape where practicable.

(3) If it is desired to use decorative doors in addition to those required, they shall be constructed of approved incombustible materials and shall not interfere with the normal operation of the required doors, and shall open in the same direction if the required doors are in a main avenue of escape.

(4) For the purpose of this subpart, all glass permitted in doors shall be at least ¼-inch thick. However, greater thickness may be required for strength purposes in certain locations. Except for hardwood doors permitted by paragraph (b)(8) of this section, all glass shall be fitted in steel or equivalent metal frames and shall be retained by steel or equivalent metal glazing beads or angles.

(5) Where wire-inserted glass is required, and the single wire type is employed, the strands shall run horizontally and shall be not more than 2 inches apart.

(6) Where hose ports are fitted, they shall be cut in the lower corner of the door on the side opposite the hinge so that if the hose is passed through the doorway when the door is open, it may be closed over the hose. The cut for the hose port should be approximately 6 inches square. A hinged or pivoted steel or equivalent metal cover shall be fitted in the cut, equipped with a bullet catch or similar method of fastening which will permit easy and automatic operation of the hinged cover.

(7) Combustible veneers may be used in doors where permitted for, and subject to the same conditions as, the bulkheads in which the doors are hung.

(8) The locking of doors may be permitted, except as noted in § 72.10–20.

(b) Doors in ''A'' Class bulkheads shall meet the following requirements:

(1) Doors in bulkheads required to be Class A–60, A–30, or A–15 shall be of hollow steel or equivalent metal construction solidly filled with approved structural insulation capable of meeting the requirements for a Class A–15 bulkhead.

(2) Doors in bulkheads required to be Class A–0 shall be of solid or hollow steel or equivalent metal construction capable of meeting the requirements of a Class A–0 bulkhead.

(3) Doors shall have a latch with a minimum throw of ¾ inch which can be operated from either side of the door. Double swing doors, where permitted for the proper utility of the space, may have the latch normally inoperative.

(4) Except as noted in paragraph (b)(8) of this section, doors may be fitted with not more than 100 square inches of glass, which shall be of the wire inserted type.

(5) Vent grilles or louvers shall not be used in doors of this type.

(6) The bottoms of doors may be undercut not to exceed ½ inch above the door sill or top of approved deck covering. Rugs, and carpets, shall not pass through doorways, but linoleum and similar coverings may do so.

(7) Door frames shall be of rigid construction, and shall provide at least a ½ inch door stop at the sides and top, except:

(i) Double doors capable of independent operation and latching may have a clearance between the doors not to exceed ⅛ inch. However, if one door must always be closed first, a doorstop of at least ½ inch shall be provided for the second door.

(ii) Double swing doors, where permitted, may have a maximum clearance of ⅛ inch at the tops and sides.

(8) Doors opening out onto open decks shall either meet the applicable requirements of this paragraph, or they may be of hardwood having a minimum thickness of 1¾ inches. In any case, no restriction as to the area of glass will be made for such doors insofar as this subpart is concerned. Only glass of the wire-inserted type may be fitted in such doors opening onto safety areas from accommodation spaces containing combustible type furniture and service, cargo, and machinery spaces.

(9) Doors in stairway enclosures and Main Vertical Zone bulkheads shall, in addition to meeting the requirements of this paragraph, also meet the following requirements:

(i) Doors, other than those which are normally locked, such as from staterooms, fan rooms, lockers, etc., shall be of the self-closing type capable of closing against a 3½ degree list, and

such doors shall be numbered in accordance with § 78.47–35 of this subchapter.

(ii) All doors, except those that are kept normally closed, shall be of a type which are capable of release from the control station and from a position at the door. The release mechanism shall be so designed that the door will automatically close in the event of disruption to the control system; however, approved power operated watertight doors will be considered acceptable for this purpose. Holdback hooks, or other means of permanently holding the door open, not subject to control station release, will not be permitted. When double swing doors are permitted, they shall have a latch arrangement which is automatically engaged by the operation of the door release system.

(iii) Double doors shall be so arranged that either door may be closed and latched independently.

(iv) For additional requirements for stairway doors, see § 72.05–20(s).

(c) Doors in ''B'' Class bulkheads shall meet the following requirements:

(1) Doors may be of solid or hollow steel or equivalent metal construction or may be of steel or equivalent metal frame with glass panes or may be of approved incombustible materials of such construction as specifically approved by the Commandant.

(2) No restriction as to the area of glass will be made for such doors, but all glass shall be of the wire-inserted type.

(3) The lower half of such doors may contain vent grilles or louvers with a net area not to exceed 2 square feet.

(4) Doors shall have a latch with a minimum throw of ⅜ inch which can be operated from either side of the door. Double swing doors, where permitted for the proper utility of the space, may have the latch normally inoperative.

(5) The bottoms of doors may be undercut not to exceed 1 inch above the door sill or top of approved deck covering. Rugs and carpets shall not pass through doorways but linoleum and similar covering may do so.

(6) Door frames shall be of rigid construction, and shall provide at least a ½ inch doorstop at the sides and top, except:

(i) Double doors capable of independent operation and latching may have a clearance between the doors not to exceed ⅛ inch. However, if one door must always be closed first, a door stop of at least ½ inch shall be provided for the second door.

(ii) Double swing doors, where permitted, may have a maximum clearance of ⅛ inch at the tops and sides.

(d) Doors in bulkheads required to be Class C shall be of approved incombustible materials.

§ 72.05–30 Windows and airports.

(a) For the purpose of this subpart, all glass in windows or airports shall be at least ¼ inch thick. However, greater thickness may be required for strength purposes in certain locations. All glass shall be fitted in steel or equivalent metal frames and shall be retained by steel or equivalent metal glazing beads or angles.

(b) Where wire-inserted glass is required, and the single wire type is employed, the strands shall run horizontally and shall be not more than 2 inches apart.

(c) Windows in Class B–0 bulkheads shall be fitted with wire inserted glass. Such windows opening onto passageways may not extend below the normal height of the storm rails.

(d) Windows in Class B–15 bulkheads shall be fitted with wire inserted glass. In addition, such windows shall be fitted with a suitable steel or equivalent metal shutter capable of being operated manually as well as automatically by means of a fusible link.

(e) Windows in interior ''A'' Class bulkheads shall be fitted with suitable steel or equivalent metal shutter capable of being operated manually as well as automatically from the control station by the same system used for the fire doors as noted in § 72.05–25(b)(9)(ii). The metal shutter shall be insulated to meet the applicable bulkhead requirements.

(f) Windows or air ports opening onto lifeboat embarkation or lowering spaces from service, cargo, or machinery spaces, or from control or accommodation spaces other than those containing only incombustible veneers and trim and fire resistant furnishings, shall be fitted with wire inserted glass.

Other windows or air ports opening onto open decks or enclosed promenades need not have wire inserted glass.

(g) Skylights to spaces containing auxiliary internal combustion machinery having an aggregate horsepower of 1,000 or more, and to boiler and main enginerooms, shall be capable of being closed from outside the space. If glass is fitted in such skylights, it shall be of the wire inserted type. The glass panels shall be fitted with permanently attached shutters of steel or equivalent metal.

§ 72.05–35 Hatch covers and shifting boards.

(a) Wood hatch covers may be used between cargo spaces. Hatch covers in other locations shall meet the requirements for deck construction noted in tables 72.05–10 (f) and (g).

(b) Tonnage openings in ''A'' Class bulkheads shall be closed by means of steel plates.

§ 72.05–40 Insulation, other than for structural fire protection.

(a) Any insulation installed for heat and comfort, refrigeration (including air conditioning), or for any other purpose, and all material incidental to its installation, shall be approved Incombustible Materials. This paragraph shall not apply to such insulation installed in cargo spaces, refrigerated storerooms, individual refrigerator boxes, nor to pipe and machinery coverings or laggings within the machinery spaces.

(b) [Reserved]

§ 72.05–45 Paint.

(a) An excessive number of coats of paint will be discouraged unless noncombustible paint is used.

(b) Nitrocellulose or other highly flammable or noxious fume-producing paints or lacquers shall not be used.

§ 72.05–50 Ventilation.

(a) Where the term *duct* is used in this section, it shall include trunks, plenums, and any other type of ventilation piping, chambers, or duct work.

(b) Where automatic fire dampers are required, they shall be designed to operate at approximately 165 degrees F. for normal locations, and approximately 212 degrees F. for locations such as galleys. The dampers shall be so designed as to close against the anticipated draft in the duct. The damper shall be made accessible for periodic inspection by means of a hinged or bolted plate in the duct. The damper and the portion of duct containing the damper shall be constructed of at least ⅛ inch steel plate suitably stiffened. No insulation need be applied to the damper blade.

(c) Where ventilation ducts are required to meet bulkhead requirements, the space within the duct shall be considered to be the same as the space served by the ventilator, and the duct shall be insulated to meet the applicable requirements of tables 72.05–10(d) and 72.05–10(e).

(d) All ventilation systems shall be designed, where practicable, so that all ducts leading to the various enclosures are kept within the main vertical zones. No duct may serve spaces in more than one main vertical zone.

(e) Where of necessity, ducts pass through main vertical zone bulkheads, automatic fire dampers shall be fitted adjacent to the bulkhead. The duct between the bulkhead and the damper shall meet the applicable bulkhead requirements. The damper shall be fitted on at least one side of the bulkhead with a visible indicator showing whether the damper is in the open or closed position. The indicator may be connected to the manual operating device rather than the damper blade so that it might show as being open when it had automatically closed, but could never be open if the indicator showed it to be closed. The damper shall be capable of being manually closed from both sides of the bulkhead. The operating positions for the damper shall be marked as required by § 78.47–53 of this subchapter.

(f) Vent ducts serving stairway enclosures shall serve no other spaces.

(g) Ventilation ducts serving cargo or main machinery spaces which pass through accommodation spaces or safety areas shall be fitted with an automatic fire damper adjacent to the point of entry. Between the bulkhead or deck and the damper, and in addition, on vertical ducts for a distance of

6 feet above the damper, the duct shall meet the applicable bulkhead requirements.

(h) Exhausts from galleys shall meet the applicable bulkhead requirements. In addition, an automatic damper shall be installed in exhaust ducts over frying vats, etc.

(i) In all ventilation systems, manually operated dampers or other suitable means shall be provided in accessible locations, outside the spaces served by the system, for shutting off the passage of air in the event of fire; however, no dampers shall be placed in exhaust ducts from film lockers or projection rooms.

(j) For information regarding controls of electrically powered ventilation systems, see subchapter J (Electrical Engineering) of this chapter.

§ 72.05–55 Furniture and furnishings.

(a) For the purpose of this subpart, rooms containing ''fire resistant furnishings'' will be considered to be those in which:

(1) All case furniture such as desks, wardrobes, dressing tables, bureaus, dressers, etc., shall be constructed entirely of approved incombustible materials; except that a combustible veneer not exceeding ⅛ inch may be used on the top surface of such articles.

(2) All free standing furniture such as chairs, sofas, tables, etc., shall be constructed with frames of approved incombustible materials.

(3) All draperies shall be of approved fire resistant fabrics.

(4) All rugs and carpets shall be of wool or other material having equivalent fire resistive qualities.

(b) Waste paper baskets shall be constructed of approved incombustible materials with solid sides and bottoms.

(c) Passageways and stairway enclosures shall contain only fire resistant furnishings. In addition, all upholstery and padding of chairs, sofas, etc., in these areas, shall be of approved fire resistant materials.

§ 72.05–90 Vessels contracted for prior to May 26, 1965.

(a) Vessels of 100 gross tons and over, contracted for prior to May 26, 1965, on an international voyage; and vessels of 100 gross tons and over, contracted for on or after May 28, 1936, and prior to May 26, 1965, not on an international voyage; shall meet the following requirements:

(1) Existing structure, arrangements, and materials previously approved will be considered satisfactory so long as they meet the minimum requirements of this paragraph and 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 construction.

(2) The details shall be in general agreement with §§ 72.05–5 through 72.05–60.

(b) Vessels of 100 gross tons and over, contracted for prior to May 28, 1936, not on an international voyage, shall meet the following requirements:

(1) Existing structure, arrangements, and materials previously approved will be considered satisfactory so long as they meet the minimum requirements of this paragraph and 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 construction.

(2) All vessels in ocean or coastwise service shall be fitted above the bulkhead deck with fire-resisting bulkheads and doors spaced not more than 131 feet apart which are capable of resisting the passage of flame for a period of at least 1 hour.

(3) All vessels with berth or stateroom accommodations for 50 or more passengers shall be fitted with an approved automatic sprinkling system unless deemed unnecessary by the Commandant. This system shall be so installed as to protect all enclosed parts of the vessel accessible to passengers or crew while the vessel is being navigated, except cargo holds, machinery spaces, and when of fire-resisting construction, toilets, bathrooms, and spaces of similar construction. Where, in the case of a particular vessel, the Commandant does not consider the installation of an automatic water-sprinkling system necessary, such vessel shall be protected in such enclosed parts of the vessel as the Commandant shall deem necessary, with an automatic electric or pneumatic fire-

detecting and alarm system, used singly or in combination, of a type approved by the Commandant.

(c) Vessels of less than 100 gross tons, contracted for prior to May 26, 1965, which carry more than 150 passengers, shall meet the following requirements:

(1) Existing structure, arrangements, and materials previously approved will be considered satisfactory so long as they meet the minimum requirements of this paragraph and 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 construction.

(2) For such vessels, contracted for on or after November 19, 1952, and prior to May 26, 1965, on an international voyage, the details shall be in general agreement with §§ 72.05–5 through 72.05–60.

[CGFR 67–87, 32 FR 19180, Dec. 20, 1967]

Subpart 72.10—Means of Escape

§ 72.10–1 Application.

(a) The provisions of this subpart, with the exception of § 72.10–90, shall apply to all vessels contracted for on or after November 19, 1952. Vessels contracted for prior to November 19, 1952, shall meet the requirements of § 72.10–90.

(b) [Reserved]

§ 72.10–5 Two means required.

(a) There shall be at least two means of escape from all general areas accessible to the passengers or where the crew may be quartered or normally employed. At least one of these two means of escape shall be independent of watertight doors. For stairway continuity and general requirements for stairways see § 72.05–20.

(b) Elevators shall not be considered as one of the required means of escape.

(c) Stairways serving only a space and a balcony to a space shall not be considered as one of the required means of escape.

[CGFR 65–50, 30 FR 16903, Dec. 30, 1965, as amended by CGD 72–104R, 37 FR 14233, July 18, 1972]

§ 72.10–10 Location.

(a) The two means of escape shall be as remote as practicable so as to minimize the possibility of one incident blocking both escapes.

(b) [Reserved]

§ 72.10–15 Vertical ladders not acceptable.

(a) Vertical ladders and deck scuttles shall not in general be considered satisfactory as one of the required means of escape. However, where it is demonstrated that the installation of a stairway would be impracticable, a vertical ladder may be used as the second means of escape.

(b) [Reserved]

§ 72.10–20 No means for locking door.

(a) No means shall be provided for locking doors giving access to either of the 2 required means of escape, except that crash doors or locking devices, capable of being easily forced in an emergency, may be employed provided a permanent and conspicuous notice to this effect is attached to both sides of the door. This paragraph shall not apply to outside doors to deckhouses where such doors are locked by key only and such key is under the control of one of the vessel's officers.

(b) [Reserved]

§ 72.10–25 Stairway size.

(a) Stairways shall be of sufficient width to satisfactorily accommodate the number of persons having access to such stairs for escape purposes.

(b) [Reserved]

§ 72.10–30 Dead end corridors.

(a) Dead end corridors, or the equivalent, more than 40 feet in length shall not be permitted.

(b) [Reserved]

§ 72.10–35 Public spaces.

(a) In all cases, public spaces having a deck area of over 300 square feet shall have at least two exits. Where practicable, these exits shall give egress to different corridors, rooms, or spaces to minimize the possibility of one incident blocking both exits.

(b) [Reserved]

§ 72.10–40 Access to lifeboats.

(a) The stairways, corridors, and doors shall be so arranged as to permit a ready and direct access to the various lifeboat embarkation areas.

(b) [Reserved]

§ 72.10–45 Weather deck communications.

(a) Vertical communication shall be provided between the various weather decks by means of permanent inclined ladders. Where ladders are for the exclusive use of the crew for rapid communication, and do not form part of a normal escape route, vertical ladders may be employed.

(b) [Reserved]

§ 72.10–90 Vessels contracted for prior to November 19, 1952.

(a) Existing arrangements previously approved will be considered satisfactory so long as 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 design provided that in no case will a greater departure from the standards of §§ 72.10–5 through 72.10–45 be permitted than presently exists. Nothing in this paragraph shall be construed as exempting any vessel from having 2 suitable means of escape from all main compartments which are accessible to the passengers or where the crew are normally quartered or employed.

(b) [Reserved]

Subpart 72.15—Ventilation

§ 72.15–1 Application.

(a) The provisions of this subpart with the exception of § 72.15–90, shall apply to all vessels contracted for on or after November 19, 1952. Vessels contracted for prior to November 19, 1952, shall meet the requirements of § 72.15–90.

(b) [Reserved]

§ 72.15–5 Structural fire protection.

See § 72.05–50 for ventilation requirements pertaining to structural fire protection.

[CGD 72–104R, 37 FR 14233, July 18, 1972]

§ 72.15–10 Vessels using fuel having a flashpoint of 110 degrees F. or lower.

(a) Where liquid fuel having a flashpoint of 110 degrees F. or lower is used for main or auxiliary machinery or for starting purposes, the spaces containing such machinery or fuel tanks shall have natural supply and mechanical ventilation as required by this section.

(b) The requirements for the mechanical exhaust system shall be such as to assure the air changes as noted in table 72.15–10(b), depending upon the size of the space.

TABLE 72.15–10(b)

Size of space, cubic feet		Minutes per air change
Over	Not over	
.....	500	2
500	1,000	3
1,000	1,500	4
1,500	.....	5

(c) Exhaust blower motors shall be outside of the ducts, and if mounted in any compartment required to be ventilated by this section, shall be of the explosion proof type. Blower blades shall be non-sparking with reference to their housings.

(d) Exhaust blower switches shall be located outside of any space required to be ventilated by this section, and shall be of the type interlocked with the ignition switch so that the blowers are started before the engine ignition is switched on. A red warning sign at the switch shall state that the blowers shall be operated prior to starting the engines for a sufficient time to insure at least one complete change of air in the compartments.

(e) The area of the ducts shall be such as to limit the air velocity to a maximum of 2,000 feet per minute. Ducts may be of any shape, provided that in no case shall 1 dimension exceed twice the other.

(f) At least 2 inlet ducts shall be located at 1 end of the compartment and they shall extend to the lowest part of the compartment or bilge on each side. Similar exhaust ducts shall be led to the mechanical exhaust system from the lowest part of the compartment or bilge on each side of the compartment

at the end opposite from that at which the inlet ducts are fitted.

(g) All ducts shall be constructed of non-ferrous metal or galvanized ferrous metal not less than No. 22 USSG, intact and gastight from end to end and shall be of substantial construction. The ducts shall lead as direct as possible and be properly fastened and supported.

(h) All supply ducts shall be provided with cowls or scoops having a free area not less than twice the required duct area. When the cowls or scoops are screened, the mouth area shall be increased to compensate for the area of the screen wire. Dampers shall not be fitted in the supply ducts. Cowls or scoops shall be kept open at all times except when the stress of weather is such as to endanger the vessel if the openings are not temporarily closed. Supply and exhaust openings shall not be located where the natural flow of air is unduly obstructed, or adjacent to possible sources of vapor ignition, nor shall they be so located that exhaust air may be taken into the supply vents.

[CGFR 65–50, 30 FR 16903, Dec. 30, 1965, as amended by USCG–2014–0688, 79 FR 58281, Sept. 29, 2014]

§ 72.15–15 Ventilation for closed spaces.

(a) All enclosed spaces within the vessel shall be properly vented or ventilated. Means shall be provided to close off all vents and ventilators.

(b) Means shall be provided for stopping all fans in ventilation systems serving machinery and cargo spaces and for closing all doorways, ventilators and annular spaces around funnels and other openings to such spaces, from outside these spaces, in case of fire.

(c) The ventilation of spaces which are ''specially suitable for vehicles'' shall be in accordance with the provisions of this paragraph. In addition, if vehicles are operated inside of enclosed spaces, the ventilation shall be in accordance with subpart 78.83 of this subchapter.

(1) Areas below the weather deck shall be provided with continuous pressure-positive ventilation at each level on which vehicles are transported.

(2) The quantity of ventilating air shall be not less than 1 cubic foot per minute per square foot of deck area.

(3) The ventilation shall be such as to prevent air stratification as well as to prevent accumulation of air pockets.

(4) An alarm system shall be provided which will indicate the loss of required ventilation. The alarm location shall be in a normally manned space acceptable to the Commandant.

[CGFR 66–50, 30 FR 16903, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15281, Dec. 6, 1966]

§ 72.15–20 Ventilation for crew quarters and passenger spaces.

(a) All crew and passenger spaces shall be adequately ventilated in a manner suitable to the purpose of the space.

(b) On vessels of 100 gross tons and over, except for such spaces as are so located that under all ordinary conditions of weather, windows, ports, skylights, etc., and doors to passageways can be kept open, all crew spaces shall be ventilated by a mechanical system, unless it can be shown that a natural system will provide adequate ventilation. However, vessels which trade regularly in the tropics shall, in general, be fitted with a mechanical ventilation system.

§ 72.15–90 Vessels contracted for prior to November 19, 1952.

(a) Existing arrangements previously approved will be considered satisfactory so long as 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 design provided that in no case will a greater departure from the standards of §§ 72.15–5 through 72.15–20 be permitted than presently exists.

(b) [Reserved]

Subpart 72.20—Accommodations for Officers and Crew

SOURCE: CGD 95–027, 61 FR 26002, May 23, 1996, unless otherwise noted.

§ 72.20–1 Application.

The provisions of this part, except § 72.20–90, apply to all vessels contracted for after November 18, 1952. Vessels contracted for before November 19, 1952, must meet the requirements of § 72.20–90.

§ 72.20–5 Intent.

Accommodations provided for officers and crew on all vessels shall be securely constructed, properly lighted, heated, drained, ventilated, equipped, located, arranged, and insulated from undue noise, heat, and odors.

[CGFR 65–50, 30 FR 16903, Dec. 30, 1965, as amended by USCG–2014–0688, 79 FR 58281, Sept. 29, 2014]

§ 72.20–10 Location of crew spaces.

(a) Crew quarters must not be located farther forward in the vessel than a vertical plane located at 5 percent of the vessel's length abaft the forward side of the stem at the designed summer load water line. However, for vessels in other than ocean or coastwise service, this distance need not exceed 8.5 meters (28 feet). For the purpose of this paragraph, the vessel's length must be as defined in § 43.15–1 of subchapter E (Load Lines) of this chapter. Unless approved by the Commandant, no section of the deck head of the crew spaces may be below the deepest load line.

(b) There must be no direct communication, except through solid, close fitted doors or hatches between crew spaces and chain lockers, or machinery spaces.

§ 72.20–15 Construction.

All crew spaces are to be constructed and arranged in a manner suitable to the purpose for which they are intended and so that they can be kept in a clean, workable, and sanitary condition.

§ 72.20–20 Sleeping accommodations.

(a) Where practicable, each licensed officer shall be provided with a separate stateroom.

(b) Sleeping accommodations for the crew must be divided into rooms, no one of which shall berth more than 4 persons.

(c) Each room shall be of such size that there is at least 2.78 square meters (30 square feet) of deck area and a volume of at least 5.8 cubic meters (210 cubic feet) for each person accommodated. The clear head room shall be not less than 190 centimeters (75 inches). In measuring sleeping accommodations any furnishings contained therein for the use of the occupants are not to be deducted from the total volume or from the deck area.

(d) Each person shall have a separate berth and not more than one berth may be placed above another. The berth must be composed of materials not likely to corrode. The overall size of a berth must not be less than 68 centimeters (27 inches) wide by 190 centimeters (75 inches) long, except by special permission of the Commandant. Where two tiers of berths are fitted, the bottom of the lower berth must not be less than 30 centimeters (12 inches) above the deck. The berths must not be obstructed by pipes, ventilating ducts, or other installations.

(e) A locker must be provided for each person accommodated in a room.

§ 72.20–25 Washrooms and toilet rooms.

(a) There must be at least 1 toilet, 1 washbasin, and 1 shower or bathtub for each 8 members or portion thereof in the crew who do not occupy sleeping accommodations to which private or semi-private facilities are attached.

(b) The toilet rooms and washrooms shall be located convenient to the sleeping quarters of the crew to which they are allotted but must not open directly into such quarters except when they are provided as private or semi-private facilities.

(c) All washbasins, showers, and bathtubs must be equipped with adequate plumbing, including hot and cold running water. All toilets must be installed with adequate plumbing for flushing.

(d) At least 1 washbasin must be fitted in each toilet room, except where private or semi-private facilities are provided and washbasins are installed in the sleeping rooms.

(e) Where more than 1 toilet is located in a space or compartment, each toilet must be separated by partitions.

§ 72.20–30 Messrooms.

(a) Messrooms must be located as near to the galley as practicable except where the messroom is equipped with a steam table.

(b) Each messroom must seat the number of persons expected to eat in the messroom at one time.

§ 72.20–35 Hospital space.

(a) Each vessel which in the ordinary course of its trade makes voyages of more than 3 days duration between ports and which carries a crew of 12 or more, must be provided with a hospital space. This space must be situated with due regard to the comfort of the sick so that they may receive proper attention in all weathers.

(b) The hospital must be suitably separated from other spaces and must be used for the care of the sick and for no other purpose.

(c) The hospital must be fitted with berths in the ratio of 1 berth to every 12 members of the crew, or portion thereof, who are not berthed in single occupancy rooms, but the number of berths need not exceed 6.

(d) The hospital must have a toilet, washbasin, and bathtub or shower conveniently situated. Other necessary suitable equipment such as a clothes locker, a table, and a seat must be provided.

§ 72.20–40 Other spaces.

Each vessel must have—

(a) Sufficient facilities where the crew may wash and dry their own clothes, including at least 1 sink supplied with hot and cold fresh water;

(b) Recreation spaces; and

(c) A space or spaces of adequate size on an open deck to which the crew has access when off duty.

§ 72.20–45 Lighting.

Each berth must have a light.

§ 72.20–50 Heating and cooling.

(a) All manned spaces must be adequately heated and cooled in a manner suitable to the purpose of the space.

(b) The heating and cooling system for accommodations must be capable of maintaining a temperature of 21 °C (70 °F) under normal operating conditions without curtailing ventilation.

(c) Radiators and other heating apparatus must be so placed and shielded, where necessary, to avoid risk of fire, danger or discomfort to the occupants. Pipes leading to radiators or heating apparatus must be insulated where those pipes create a hazard to persons occupying the space.

§ 72.20–55 Insect screens.

Provisions must be made to protect the crew quarters against the admission of insects.

§ 72.20–90 Vessels contracted for prior to November 19, 1952.

(a) Vessels of 100 gross tons and over, contracted for prior to March 4, 1915, must meet the requirements of this paragraph.

(1) Existing structure, arrangements, materials, and facilities, previously approved will be considered satisfactory so long as they are maintained in a suitable condition to the satisfaction of the Officer in Charge, Marine Inspection.

(2) Minor repairs and alterations may be made to the same standard as the original construction provided that in no case will a greater departure from the standards of §§ 72.20–5 through 72.20–55 be permitted than presently exists.

(b) Vessels of 100 gross tons and over, contracted for on or after March 4, 1915, but prior to January 1, 1941, must meet the following requirements:

(1) Existing structure, arrangements, materials, and facilities, previously accepted or approved will be considered satisfactory so long as 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 standard as the original construction.

(2) Where reasonable and practicable, a minimum of 1 toilet, shower, and washbasin must be provided for each 10 members of the crew or fraction thereof.

(3) Crew spaces must have a volume of at least 3.4 cubic meters (120 cubic feet) and a deck area of at least 1.5 square meters (16 square feet) for each person accommodated.

(4) Each crewmember shall have a separate berth, and berths may not be placed more than 2 high.

(5) Each vessel, which in the ordinary course of its trade makes a voyage of more than 3 days duration between ports and which carries a crew of 12 or more persons, must be provided with a suitable hospital space for the exclusive use of the sick or injured. Berths must be provided in the ratio of 1 berth for each 12 members of the crew or fraction thereof, but the number of berths need not exceed 6.

(6) The crew spaces must be securely constructed, properly lighted, heated, drained, ventilated, equipped, located, and arranged, and, practicable, must be insulated from undue noise and odors.

(c) Vessels of 100 gross tons and over, contracted for on or after January 1, 1941, but prior to November 19, 1952, must meet the requirements of this paragraph.

(1) Existing structure, arrangements, materials, and facilities, previously accepted or approved will be considered satisfactory so long as they are maintained in a good condition to the satisfaction of the Office in Charge, Marine Inspection. Minor repairs and alterations may be made to the same standard as the original construction.

(2) There must be a minimum of 1 toilet, 1 shower, and 1 washbasin for each 8 members of the crew or fraction thereof who are not accommodated in rooms having attached private or semiprivate facilities. Washbasins, showers, and bathtubs, if substituted for showers, must be equipped with adequate plumbing, including hot and cold running water.

(3) Crew spaces must have a volume of at least 3.4 cubic meters (120 cubic feet) and a deck of at least 1.5 square meters (16 square feet) for each person accommodated.

(4) Each crewmember shall have a separate berth, and berths may not be placed more than two high.

(5) Each vessel, which in the ordinary course of its trade makes a voyage of more than 3 days duration between ports and which carries a crew of 12 or more persons, must be provided with a suitable hospital space for the exclusive use of the sick or injured. Berths must be provided in the ratio of 1 berth for each 12 members of the crew or fraction thereof, but the member of berths need not exceed 6.

(6) The crew spaces must be securely constructed, properly lighted, heated, drained, ventilated, equipped, located, and arranged, and, where practicable, must be insulated from undue noise heat, and odors.

[CGD 95–027, 61 FR 26002, May 23, 1996; 61 FR 35138, July 5, 1996]

Subpart 72.25—Passenger Accommodations

§ 72.25–1 Application.

(a) The provisions of this subpart shall apply to all vessels.

(b) [Reserved]

§ 72.25–10 Location of passenger quarters.

(a) The deck forming the deckhead of passenger quarters between adjacent watertight bulkheads shall not be below the deepest load line at any point within the watertight compartment in question.

(b) [Reserved]

§ 72.25–15 Passenger accommodations for excursion boats, ferryboats, and passenger barges.

(a) Except as specifically excluded by this section, separate public toilet spaces shall be provided for male and female passengers with at least the minimum equipment in each based upon the number of passengers permitted to be carried as set forth in table 72.25–15(a).

TABLE 72.25–15(a)

Number of passengers		Toilets	Wash-basins
Over	Not over		
.....	100	1	1
100	300	2	1
300	500	3	2
500	1,000	4	2
1,000	1,500	5	3
1,500	2,000	6	3
2,000	2,500	7	4
2,500	3,000	8	4
3,000	3,500	9	5
3,500	4,000	10	5
4,000	.....	(1)	(1)

[1] Additional facilities by extrapolation.

(b) In the men's spaces, urinals may be substituted for toilets, provided at

least one-half the required toilets are fitted.

(c) On ferryboats and barges having a short run, passenger toilet facilities need not be fitted.

Subpart 72.30—Subdivision and Stability

§ 72.30–1 Application.

Each vessel must meet the applicable requirements in subchapter S of this chapter.

[CGD 79–023, 48 FR 51007, Nov. 4, 1983]

Subpart 72.40—Rails and Guards

§ 72.40–1 Application.

(a) The provisions of this subpart, with the exception of § 72.40–90, shall apply to all vessels contracted for on or after July 1, 1969. Vessels contracted for prior to July 1, 1969, shall meet the requirements of § 72.40–90.

(b) [Reserved]

[CGFR 65–50, 30 FR 16903, Dec. 30, 1965, as amended by CGFR 69–72, 34 FR 17483, Oct. 29, 1969]

§ 72.40–5 Where rails required.

(a) All passenger vessels shall have efficient guard rails or bulwarks on decks and bridges as follows: The height of rails or bulwarks shall be at least 39½ inches from the deck. At the peripheries of the freeboard and superstructure decks and at the peripheries of all decks accessible to passengers, rails shall be in at least three courses including the top. The opening below the lowest course shall not be more than 9 inches. The courses shall not be more than 15 inches apart. In the case of ships with rounded gunwales the guard rail supports shall be placed on the flat of the deck. On other decks and bridges the rails shall be in at least two courses, including the top, approximately evenly spaced.

(b) Where the height of the rails interferes with the business of the vessel, as in the case of a sport fishing vessel, other arrangements may be specifically approved by the Commandant. However, in general, the effective rail or bulwark height above the deck on which the passengers stand shall be at least 30 inches.

(c) On the passenger decks of ferryboats, excursion vessels, and vessels of a similar type, the space below the top of the rail shall be fitted with suitable wire mesh or the equivalent. Depending upon the type of construction, the lower rail courses may not be required.

(d) Where it can be shown to the satisfaction of the Commandant that a vessel is engaged exclusively in voyages of a sheltered nature, the provisions of paragraph (a) of this section may be relaxed.

[CGFR 69–72, 34 FR 17483, Oct. 29, 1969]

§ 72.40–10 Storm rails.

(a) Suitable storm rails shall be installed in all passageways and at the deckhouse sides where passengers or crew might have normal access. Storm rails shall be installed on both sides of passageways which are 6 feet or more in width.

(b) [Reserved]

§ 72.40–15 Vehicular ferries.

(a) On vehicular ferries, suitable chains, cables, or other barriers shall be installed at the ends of the vehicle runways. In addition, suitable gates, rails, or other devices shall be installed as a continuation of the regularly required rails.

(b) [Reserved]

§ 72.40–20 Guards in dangerous places.

(a) Suitable covers, guards, or rails shall be installed in way of all exposed and dangerous places such as gears, machinery, etc.

(b) [Reserved]

§ 72.40–90 Vessels contracted for prior to July 1, 1969.

(a) Passenger vessels contracted for prior to July 1, 1969, assigned a deeper load line under part 42 of subchapter E (Load Lines) of this chapter shall have efficient guard rails or bulwarks as required by § 72.40–5. Otherwise, existing structure, arrangements, materials, and facilities previously approved will be considered satisfactory so long as 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 construction provided that in no case will greater departure from the standards of §§72.40–5 through 72.40–20 be permitted than presently exists.

(b) [Reserved]

[CGFR 69–72, 34 FR 17483, Oct. 29, 1969]

PART 76—FIRE PROTECTION EQUIPMENT

Subpart 76.01—Application

Sec.
76.01–1 General; preemptive effect.
76.01–2 Incorporation by reference.
76.01–5 Equipment installed but not required.

Subpart 76.05—Fire Detecting and Extinguishing Equipment, Where Required

76.05–1 Fire detection and alarm systems.
76.05–5 Manual alarm system.
76.05–10 Supervised patrol system.
76.05–15 Fire main system.
76.05–20 Fixed fire extinguishing systems.
76.05–25 Hand portable fire extinguishers and semiportable fire extinguishing systems.

Subpart 76.10—Fire Main System, Details

76.10–1 Application.
76.10–3 Water availability.
76.10–5 Fire pumps.
76.10–10 Fire station hydrants, hose and nozzles.
76.10–15 Piping.
76.10–90 Installations contracted for prior to May 26, 1965.

Subpart 76.13—Steam Smothering Systems

76.13–1 Application.
76.13–90 Installations contracted for prior to January 1, 1962.

Subpart 76.15—Carbon Dioxide Extinguishing Systems, Details

76.15–1 Application.
76.15–5 Quantity, pipe sizes, and discharge rate.
76.15–10 Controls.
76.15–15 Piping
76.15–20 Carbon dioxide storage.
76.15–25 Discharge outlets.
76.15–30 Alarms.
76.15–35 Enclosure openings.
76.15–40 Pressure relief.
76.15–50 Lockout valves.
76.15–60 Odorizing units.
76.15–90 Installations contracted for prior to November 19, 1952.

Subpart 76.17—Foam Extinguishing Systems, Details

76.17–1 Application.
76.17–5 Quantity of foam required.
76.17–10 Controls.
76.17–15 Piping.
76.17–20 Discharge outlets.
76.17–25 Additional protection required.
76.17–90 Installations contracted for prior to November 19, 1952.

Subpart 76.23—Manual Sprinkling System, Details

76.23–1 Application.
76.23–5 Zoning.
76.23–10 Quantity, pipe sizes, and discharge rates.
76.23–15 Controls.
76.23–20 Piping.
76.23–25 Sprinkler heads.
76.23–90 Installations contracted for prior to November 19, 1952.

Subpart 76.25—Automatic Sprinkling System, Details

76.25–1 Application.
76.25–5–76.25–35 [Reserved]
76.25–90 Installations contracted for prior to September 30, 1997.

Subpart 76.27—Fire Detection and Alarm System, Details

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 76.30—Pneumatic FireDetection System, Details

76.30–1 Application.
76.30–5 Zoning.
76.30–10 Location and spacing of tubing.
76.30–15 Operation and installation.
76.30–90 Installations contracted for prior to November 19, 1952.

Subpart 76.33—Smoke Detection System, Details

76.33–1 Application.
76.33–5 Zoning.

76.33–10 Location and spacing of accumulators.
76.33–15 Piping.
76.33–20 Operation and installation.
76.33–90 Installations contracted for prior to November 19, 1952.

Subpart 76.35—Manual Alarm System, Details

76.35–1 Application.
76.35–5 Zoning.
76.35–10 Location and spacing of manual alarm boxes.
76.35–15 Operation and installation.
76.35–90 Installations contracted for prior to November 19, 1952.

Subpart 76.50—Hand Portable Fire Extinguishers and Semiportable Fire Extinguishing Systems, Arrangements and Details

76.50–1 Application.
76.50–5 [Reserved]
76.50–10 Location.
76.50–20 Semi-portable fire extinguishers.
76.50–80 Locations and number of fire extinguishers required for vessels constructed prior to January 18, 2017.
76.50–90 Vessels contracted for prior to November 19, 1952.

Subpart 76.60—Fire Axes

76.60–1 Application.
76.60–5 Number required.
76.60–10 Location.

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.

SOURCE: CGFR 65–50, 30 FR 16940, Dec. 30, 1965, unless otherwise noted.

Subpart 76.01—Application

§ 76.01–1 General; preemptive effect.

(a) The provisions of this part shall apply to all vessels except as specifically noted in this part.

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

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2006–24797, 77 FR 33875, June 7, 2012]

§ 76.01–2 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Coast Guard must publish notice of change in the FEDERAL REGISTER and the material must be available to the public. All approved material is available for inspection at the 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*. The material is also available for inspection at Coast Guard Headquarters. Contact Commandant (CG–ENG), Attn: Office of Design and Engineering Systems, U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue SE., Washington, DC 20593–7509. The material is also available from the sources listed in paragraphs (b) through (d) of this section.

(b) ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428–2959, 877–909–2786, *http://www.astm.org*.

(1) ASTM F1121–87 (Reapproved 2010), Standard Specification for International Shore Connections for Marine Fire Applications (''ASTM F 1121''), (approved March 1, 2010), incorporation by reference approved for § 76.10–10.

(2) [Reserved]

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

(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.

(e) Underwriters Laboratories Inc. (UL), 12 Laboratory Drive, Research Triangle Park, NC 27709–3995, 919–549–1400, *http://www.ul.com*.

(1) UL 19 Standard for Safety, Lined Fire Hose and Hose Assemblies (''UL 19'') (2001), incorporation by reference approved for § 76.10–10.

(2) [Reserved]

[USCG–2003–16630, 73 FR 65192, Oct. 31, 2008, as amended by USCG–2009–0702, 74 FR 49231, Sept. 25, 2009; USCG–2012–0832, 77 FR 59779, Oct. 1, 2012; USCG–2012–0866, 78 FR 13250, Feb. 27, 2013; USCG–2013–0671, 78 FR 60150, Sept. 30, 2013; USCG–2012–0196, 81 FR 48252, July 22, 2016]

§ 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.

[USCG–2012–0196, 81 FR 48252, July 22, 2016]

Subpart 76.05—Fire Detecting and Extinguishing Equipment, Where Required

§ 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.

[USCG–2012–0196, 81 FR 48253, July 22, 2016]

§ 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]

[USCG–2012–0196, 81 FR 48253, July 22, 2016]

§ 76.05–10 Supervised patrol system.

(a) A supervised patrol or watchman system must be provided on all vessels as set forth in §§ 78.30–10 and 78.30–15 of this subchapter.

(b) [Reserved]

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2012–0196, 81 FR 48253, July 22, 2016]

§ 76.05–15 Fire main system.

(a) Fire pumps, hydrants, hose, and nozzles shall be installed on the following vessels:

(1) On all self-propelled vessels.

(2) After July 1, 1957, on all barges with sleeping accommodations for more than six persons.

(b) The arrangement and details of the fire main system shall be as set forth in subpart 76.10.

§ 76.05–20 Fixed fire extinguishing systems.

Approved fire extinguishing systems must be installed, as required by Table 76.05–20 on all self-propelled vessels and on all barges with sleeping accommodations for more than six persons. Previously approved installations may be retained as long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

TABLE 76.05–20—REQUIRED FIXED EXTINGUISHING SYSTEMS

Space	Fixed extinguishing systems
Safety Areas	
Wheelhouse or fire-control room	None required.[1]
Stairway and elevator enclosures	None required.[1]
Communication corridors	None required.[1]
Lifeboat embarkation and lowering stations	None required.
Radio room	None required.[1]
Accommodations	
Staterooms, toilet spaces, isolated pantries, etc	None required.[1]
Offices, lockers, and isolated storerooms	None required.[1]
Public spaces	None required.[1]
Open decks or enclosed promenades	None required.
Service Spaces	
Galleys	None required.[1]
Main pantries	None required.[1]
Motion picture booths and film lockers	None required.[1 2]
Paint and lamp rooms	Carbon dioxide.[3]
Inaccessible baggage, mail, and specie rooms and storerooms	Carbon dioxide.[3]
Accessible baggage, mail, and specie rooms and storerooms	None required.[1]
Refrigerated storerooms	None required.
Carpenter, valet, photographic, and printing shops, sales rooms, etc	None required.[1]
Machinery spaces	
Coal fired boilers: Bunker and boiler space	None required.[1]
Oil fired boilers: Spaces containing oil fired boilers either main or auxiliary, their fuel oil service pumps, and/or such other fuel oil units as the heaters, strainers, valves, manifolds, etc., that are subject to the discharge pressure of the fuel oil service pumps, together with adjacent spaces to which oil can drain.	Carbon dioxide or foam.[4]
Internal combustion or gas turbine propelling machinery spaces	Carbon dioxide.[5]
Electric propulsive motors or generators of open type	None required.
Enclosed ventilating systems for motors and generators of electric propelling machinery.	Carbon dioxide (in ventilating system).[6]
Auxiliary spaces, internal combustion or gas turbine	Carbon dioxide.[7]
Auxiliary spaces, electric motors or generators	None required.
Auxiliary spaces, steam	None required.
Trunks to machinery spaces	None required.
Fuel tanks	None required.[8]
Cargo Spaces	
Inaccessible during voyage (combustible cargo), including trunks (excluding tanks)	Carbon dioxide.[3]
Accessible during voyage (combustible cargo)	Automatic or manual sprinkler system.
Vehicular deck (except where no overhead deck is 30 feet (9.14 meters) in length or less).	Manual sprinkler.
Cargo oil tanks	Carbon dioxide or foam.[3]
Specially suitable for vehicles	Carbon dioxide, automatic or manual sprinkler system.

[1] 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.

[2] Sprinkler heads may be attached to a potable water system provided electrical or pneumatic detecting is installed.

[3] 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.

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

[5] 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.

[6] Not required on vessels contracted for prior to November 19, 1952.

[7] 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.

[8] 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.

[USCG–2012–0196, 81 FR 48253, July 22, 2016]

§ 76.05–25 Hand portable fire extinguishers and semiportable fire extinguishing systems.

(a) Approved hand portable fire extinguishers and semiportable fire extinguishing systems shall be installed on all vessels as set forth in subpart 76.50.

(b) [Reserved]

Subpart 76.10—Fire Main System, Details

§ 76.10–1 Application.

(a) The provisions of this subpart, with the exception of § 76.10–90, shall apply to all fire main installations contracted for on or after May 26, 1965. Installations contracted for prior to May 26, 1965, shall meet the requirements of § 76.10–90.

(b) [Reserved]

§ 76.10–3 Water availability.

(a) On all vessels on an international voyage, regardless of the date of construction, water pressure from the firemain protecting enclosed spaces shall be immediately available by maintenance of water pressure on the firemain at all times when passengers are aboard the vessel, or by remote control of fire pumps which control shall be easily operable and readily accessible.

(b) Where approved remote controls are not installed, an alarm shall be fitted which will sound in the engine room indicating a drop of water pressure on the system.

[CGFR 67–87, 32 FR 19181, Dec. 20, 1967]

§ 76.10–5 Fire pumps.

(a) Vessels must be equipped with independently driven fire pumps in accordance with table 76.10–5(a).

TABLE 76.10–5(a)

Gross tons		Minimum number of pumps		Hose and hydrant size, inches	Nozzle orifice size, inches	Length of hose, feet
Over	Not over	International voyage	Other			
.....	100	2	1	1½	½	50
100	500	2	1	1½	⅝	50
500	1,500	2	2	1½	⅝	50
1,500	4,000	2	2	[1] 2½	[1] ⅞	[1] 50
4,000	.....	3	3	[1] 2½	[1] ⅞	[1] 50

[1] Except as allowed by § 76.10–10(b).

(b) Vessels on an international voyage shall have a minimum total fire pump capacity at least equal to two-thirds of the required total bilge pump capacity, but in no case less than that required by this section. Each of the required fire pumps shall have a capacity not less than 80 percent of the total required capacity divided by the number of required pumps.

(c) Each pump shall be capable of delivering water simultaneously from the two highest outlets at a Pitot tube pressure of approximately 50 p. s. i. Where one or both of these outlets is a 1½-inch siamese fitting, both branches of the siamese fitting at each such outlet shall be utilized for the purpose of this requirements.

(d) Fire pumps shall be fitted on the discharge side with relief valves set to relieve at 25 p. s. i. in excess of the pressure necessary to maintain the requirements of paragraph (c) of this section or 125 p. s. i., whichever is greater. Relief valves may be omitted if the pumps, operating under shutoff conditions, are not capable of developing a pressure exceeding this amount.

(e) Fire pumps shall be fitted with a pressure gauge on the discharge side of the pumps.

(f) Fire pumps may be used for other purposes provided at least one of the required pumps is kept available for use on the fire system at all times. In no case shall a pump having connection to an oil line be used as a fire pump. Branch lines connected to the fire main for purposes other than fire and deck wash shall be arranged so that the requirements of paragraphs (b) and (c) of

this section and any other services installed on the fire main can be met simultaneously.

(g) The total area of the pipes leading from a pump shall not be less than the discharge area of the pump.

(h) If a vessel uses main or auxiliary oil fired boilers or internal combustion propulsion machinery, and is required to have two fire pumps, the pumps must be in separate spaces and the arrangement of 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, in vessels of less than 300 feet in length, when it is shown to the satisfaction of the Commandant that it is unreasonable or impracticable to meet this requirement due to the size or arrangement of the vessel, or for other reasons, the installation of a total flooding carbon dioxide or clean agent extinguishing system may be accepted as an alternate method of extinguishing any fire that affects the powering and operation of at least one of the required fire pumps.

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by CGD 95–028, 62 FR 51204, Sept. 30, 1997; USCG–2006–24797, 77 FR 33876, June 7, 2012; USCG–2012–0196, 81 FR 48254, July 22, 2016]

§ 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.

[USCG–2012–0196, 81 FR 48254, July 22, 2016]

§ 76.10–15 Piping.

(a) All piping, valves, and fittings shall meet the applicable requirements of subchapter F (Marine Engineering) of this chapter.

(b) All distribution cut-off valves shall be marked as required by § 78.47–15 of this subchapter.

(c) For vessels on an international voyage, the diameter of the fire main shall be sufficient for the effective distribution of the maximum required discharge from two fire pumps operating simultaneously. This is in addition to § 76.10–5(c). The discharge of this quantity of water through hoses and nozzles at a sufficient number of adjacent hydrants shall be at a minimum Pitot tube pressure of approximately 50 pounds per square inch.

§ 76.10–90 Installations contracted for prior to May 26, 1965.

(a) Installations contracted for prior to May 26, 1965, shall meet the following requirements:

(1) Except as specifically modified by this paragraph, the requirements of §§ 76.10–5 through 76.10–15 shall be complied with insofar as the number and general type of equipment is concerned. Existing equipment, except firehose nozzles and low-velocity water spray applicators, previously approved but not meeting the applicable requirements of §§ 76.10–5 through 76.10–15 may be continued in service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs, alterations, and replacements may be permitted to the same standards as the original installation. However, all new installations or major replacements shall meet the applicable requirements in this part.

(2) All vessels contracted for prior to November 19, 1952, shall be fitted with

fire pumps, hoses, and nozzles in accordance with table 76.10–90(a)(2).

TABLE 76.10–90(a)(2)

Gross tons		Minimum number of pumps	Minimum hose and hydrant size, inches	Nozzle orifice size, inches	Length of hose, feet
Over	Not over				
100	4,000	2	[1] 1½	[1] ⅝	[1] 50
4,000	.....	3	[1] 1½	[1] ⅝	[1] 50

[1] May use 50 feet of 2½-inch hose with ⅞-inch nozzles for exterior stations. May use 75 feet of 1½-inch hose with ⅝-inch nozzles for interior station in which case such interior stations shall have siamese connections.

(3) When reasonable and practicable, where two or more fire pumps are required, they shall not all be located in the same space. Vessels on an international voyage shall, however, comply with the requirements of § 76.10–5(h).

(4) The general requirements of § 76.10–5(c) through (h), § 76.10–10(d) through (i), and § 76.10–15, shall be complied with insofar as is reasonable and practicable. In addition, vessels on an international voyage shall comply with the requirements of § 76.10–5(b).

(5) Vessels on an international voyage shall comply with the requirements of § 76.10–3.

(6) Firehose nozzles and low-velocity spray applicators must meet the requirements of §§ 76.10–10(j), 76.10–10(k), and 76.10–10(l)

(b) [Reserved]

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by CGFR 67–87, 32 FR 19181, Dec. 20, 1967; CGD 76–086, 44 FR 2392, Jan. 11, 1979; CGD 95–027, 61 FR 26004, May 23, 1996; USCG–2000–7790, 65 FR 58461, Sept. 29, 2000]

Subpart 76.13—Steam Smothering Systems

§ 76.13–1 Application.

Steam smothering systems are not permitted on vessels contracted for on or after January 1, 1962. 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.

[CGD 95–027, 61 FR 26004, May 23, 1996]

§ 76.13–90 Installations contracted for prior to January 1, 1962.

(a) Installations contracted for prior to July 1, 1935, shall meet the following requirements:

(1) Existing arrangements, materials, and facilities 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 standard as the original installation.

(2) The main pipes and their branches to the cargo compartments and similar spaces shall be not less than 1½-inch pipe size and shall emanate from not more than two stations in easily accessible locations. If located on the open deck, the distribution manifolds shall be suitably protected by an enclosing cabinet or casing which shall be marked as required by § 78.47–17 of this subchapter. Each branch line shall have a valve at the manifold which shall be marked as required by § 78.47–15 of this subchapter.

(3) Branches to paint lockers and similar small spaces may be taken from the nearest stream supply line and shall be not less than ¾-inch pipe size. The valve shall be marked as required by § 78.47–15 of this subchapter.

(b) Installations contracted for on or after July 1, 1935, but prior to November 19, 1952, shall meet the following requirements:

(1) Existing arrangements, materials and facilities 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 standard as the original installation.

(2) Steam shall be available from the main or auxiliary boilers to provide at least one pound of steam per hour for each 50 cubic feet of gross volume of the largest compartment protected. Where reasonable and practicable, the steam pressure shall be at least 100 p.s.i.

(3) The piping system shall meet the general requirements of paragraphs

(c)(5) through (12) of this section insofar as is reasonable and practicable.

(4) The minimum size of distribution piping and the number of branches to the various spaces shall be as given in table 76.13–90(b)(4) or by the following formula:

$$D=\sqrt{C}/30{,}000 \qquad (1)$$

where:

D = Required diameter of pipe in inches.
C = Volume of compartment in cubic feet.

TABLE 76.13–90(b)(4)

Volume of compartment in cubic feet		Number of branches to compartment	Pipe size of each branch, inches
Over	Not over		
.....	30,000	1	1
30,000	46,000	1	1¼
46,000	67,000	1	1½
67,000	94,000	.....	1¼
94,000	135,000	2	1½
135,000	203,000	3	1½

(5) The minimum size of the steam supply line from the boiler to the distribution and manifold shall be as given by the following formula:

$$D=\sqrt{C}/60{,}000$$

(2)

where:

D = Diameter of pipe in inches.
C = Volume of all compartments in cubic feet.

(c) Installations contracted for on or after November 19, 1952, but prior to January 1, 1962, shall meet the following requirements:

(1) Existing arrangements, materials and facilities 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 standard as the original installation.

(2) Steam shall be available from main or auxiliary boilers to provide at least one pound of steam per hour for each 12 cubic feet of the gross volume of the largest compartment to be protected.

(3) Although separate piping shall be led to each cargo hold and 'tween deck, for the purpose of determining the amount of steam required, a cargo compartment will be considered as the space between adjacent watertight or firescreen bulkheads and from tank top or lowest deck to the deck head of the uppermost deck on which cargo may be carried. If a trunk extends beyond such deck, the trunk space shall be included. Tonnage openings shall be considered as sealed for this purpose.

(4) A steam pressure of at least 100 p.s.i. shall be available unless specifically approved otherwise.

(5) All piping, valves, and fittings shall meet the applicable requirements of subchapter F (Marine Engineering) of this chapter.

(6) The distribution piping shall emanate from not more than three stations in easily accessible locations on the weather deck, and shall lead to the lower portion of each cargo hold, cargo 'tween deck, and other compartments protected. However, lines to paint lockers and similar small spaces may be taken from the nearest steam supply line.

(7) The distribution line to each compartment shall be fitted with a shutoff valve. The valve shall be marked as required by § 78.47–15 of this subchapter.

(8) The manifold steam supply line shall be fitted with a master valve at the manifold.

(9) Provisions shall be made for draining the manifold and distribution lines to prevent them from freezing.

(10) If located on the open deck, the distribution manifolds shall be suitably protected by an enclosing cabinet or casing. In any case, it shall be marked as required by § 78.47–17 of this subchapter.

(11) Piping shall not be led into or through spaces accessible to the passengers or crew while the vessel is being navigated, with the exception of machinery spaces and corridors. However, in special cases, arrangements to run piping through such spaces may be specifically approved by the Commandant, provided all joints are welded, suitable expansion bends are provided, and all piping is extra heavy.

(12) Piping shall be used for no other purpose except that it may be incorporated with the fire detecting system, and where suitable provisions are made, it may be used for steaming out tanks.

(13) The minimum size and number of branches to the various spaces shall be as given in table 76.13–90(c)(13). The distribution piping from the manifold to the branch lines shall have an area approximately equal to the combined areas of the branch lines served.

TABLE 76.13–90(c)(13)

Volume of spaces in cubic feet		Number of branches to spaces	Pipe size of each branch, inches
Over	Not over		
.....	500	1	¾
500	5,000	1	1
5,000	15,000	1	1¼
15,000	30,000	1	1½
30,000	60,000	2	1½
60,000	100,000	3	1½
100,000	190,000	4	1½

(14) The steam supply line from the boiler to any distribution manifold shall be of sufficient size to supply all the branch lines to the largest compartment and to all adjacent compartments.

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15283, Dec. 6, 1966]

Subpart 76.15—Carbon Dioxide Extinguishing Systems, Details

§ 76.15–1 Application.

(a) Where a carbon dioxide extinguishing system is installed, the provisions of this subpart, with the exception of § 76.15–90, shall apply to all installations contracted for on or after November 19, 1952. Installations contracted for prior to November 19, 1952, shall meet the requirements of § 76.15–90.

(b) The requirements of this subpart are based on a ''high pressure system'', i.e., one in which the carbon dioxide is stored in liquid form at atmospheric temperature. Details for ''low pressure systems'', i.e., those in which the carbon dioxide is stored in liquid form at a continuously controlled low temperature, may be specifically approved by the Commandant where it is demonstrated that a comparable degree of safety and fire extinguishing ability is achieved.

§ 76.15–5 Quantity, pipe sizes, and discharge rate.

(a) *General*. The amount of carbon dioxide required for each space shall be as determined by the following paragraphs in this section.

(b) *Total available supply*. A separate supply of carbon dioxide need not be provided for each space protected. The total available supply shall be at least sufficient for the space requiring the greatest amount.

(c) *Cargo spaces*. (1) The number of pounds of carbon dioxide required for each space in cubic feet shall be equal to the gross volume of the space in cubic feet divided by 30.

(2) Although separate piping shall be led to each cargo hold and 'tween deck, for the purpose of determining the amount of carbon dioxide required, a cargo compartment will be considered as the space between adjacent watertight or firescreen bulkheads and from the tank top or lowest deck to the deck head of the uppermost space on which cargo may be carried. If a trunk extends beyond such deck, the trunk volume shall be included. Tonnage openings shall be considered as sealed for this purpose.

(3) Branch lines to the various cargo holds and 'tween decks shall not be less than ¾ inch standard pipe size.

(4) No specific discharge rate need be applied to such systems.

(d) *Machinery spaces, paint lockers, tanks, and similar spaces*. (1) Except as provided in paragraph (d)(3) of this section, the number of pounds of carbon dioxide required for each space shall be equal to the gross volume of the space divided by the appropriate factor noted in table 76.15–5(d)(1). If fuel can drain from the compartment being protected to an adjacent compartment, or if the compartments are not entirely separate, the requirements for both compartments shall be used to determine the amount of carbon dioxide to be provided. The carbon dioxide shall be arranged to discharge into both such compartments simultaneously.

TABLE 76.15–5(d)(1)

Gross volume of compartment, cubic feet		Factor
Over	Not over	
.....	500	15

TABLE 76.15–5(d)(1)—Continued

Gross volume of compartment, cubic feet		Factor
Over	Not over	
500	1,600	16
1,600	4,500	18
4,500	50,000	20
50,000	.....	22

(2) For the purpose of the above requirement of this paragraph, the volume of a machinery space shall be taken as exclusive of the normal machinery casing unless the boiler, internal combustion machinery, or fuel oil installations extend into such space in which case the volume shall be taken to the top of the casing or the next material reduction in casing area, whichever is lower. For installations contracted for on or after October 1, 1959, ''normal machinery casing'' and ''material reduction in casing area'' shall be defined as follows:

(i) By ''normal machinery casing'' shall be meant a casing the area of which is not more than 40 percent of the maximum area of the machinery space.

(ii) By ''material reduction in casing area'' shall be meant a reduction to at least 40 percent of the casing area.

(3) For vessels on an international voyage contracted for on or after May 26, 1965, the amount of carbon dioxide required for a space containing propulsion boilers or internal combustion propulsion machinery shall be as given by paragraphs (d) (1) and (2) of this section or by dividing the entire volume, including the casing, by a factor of 25, whichever is the larger.

(4) Branch lines to the various spaces shall be as noted in table 76.15–5(d)(4).

TABLE 76.15–5(d)(4)

Maximum quantity of carbon dioxide required, pounds	Minimum nominal pipe size, inches	Maximum quantity of carbon dioxide required, pounds	Minimum nominal pipe size, inches
100	½	2,500	2½
225	¾	4,450	3
300	1	7,100	3½
600	1¼	10,450	4
1,000	1½	15,000	4½
2,450	2		

(5) Distribution piping within the space shall be proportioned from the supply line to give proper distribution to the outlets without throttling.

(6) The number, type, and location of discharge outlets shall be such as to give a uniform distribution throughout the space.

(7) The total area of all discharge outlets shall not exceed 85 percent nor be less than 35 percent of the nominal cylinder outlet area or the area of the supply pipe, whichever is smaller. The nominal cylinder outlet area in square inches shall be determined by multiplying the factor 0.0022 by the number of pounds of carbon dioxide required, except that in no case shall this outlet area be less than 0.110 square inch.

(8) The discharge of at least 85 percent of the required amount of carbon dioxide shall be complete within 2 minutes.

(e) *Spaces specially suitable for vehicles.* (1) The number of pounds of carbon dioxide required shall be equal to the gross volume of the largest ''tight'' space divided by 22. In no case, however, shall it be less than that required by paragraph (c) of this section.

(2) The arrangement of valves and piping shall be such that the required quantity of carbon dioxide may be discharged into any ''tight'' space. The discharge of the required quantity of carbon dioxide shall be completed within 2 minutes.

(3) Except as noted in paragraphs (e) (1) and (2) of this section, the requirements of paragraph (d) of this section shall apply.

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15283, Dec. 6, 1966; CGD 95–028, 62 FR 51204, Sept. 30, 1997; USCG–1999–6216, 64 FR 53225, 53226, Oct. 1, 1999; USCG–2010–0759, 75 FR 60003, Sept. 29, 2010]

§ 76.15–10 Controls.

(a) Except as noted in § 76.15–20(b), all controls and valves for the operation of the system shall be outside the space protected, and shall not be located in any space that might be cut off or made inaccessible in the event of fire in any of the spaces protected.

(b) If the same cylinders are used to protect more than one hazard, a manifold with normally closed stop valves shall be used to direct the carbon dioxide into the proper space. If cylinders

are used to protect only one hazard, a normally closed stop valve shall be installed between the cylinders and the hazard except for systems of the type indicated in § 76.15–5(d) which contain not more than 300 pounds of carbon dioxide.

(c) Distribution piping to the various cargo spaces shall be controlled from not more than two stations. One of the stations controlling the system for the main machinery space shall be located as convenient as practicable to one of the main escapes from the space. All control stations and the individual valves and controls shall be marked as required by §§ 78.47–15 and 78.47–17 of this subchapter.

(d) Systems of the type indicated in § 76.15–5(d) shall be actuated by one control operating the valve to the space and a separate control releasing at least the required amount of carbon dioxide. These two controls shall be located in a box or other enclosure clearly identified for the particular space. Those systems installed without a stop valve shall be operated by one control releasing at least the required amount of carbon dioxide.

(e) Where provisions are made for the simultaneous release of a given amount of carbon dioxide by operation of a remote control, provisions shall also be made for manual control at the cylinders. Where gas pressure from pilot cylinders is used as a means for releasing the remaining cylinders, not less than two pilot cylinders shall be used for systems consisting of more than two cylinders. Each of the pilot cylinders shall be capable of manual control at the cylinder, but the remaining cylinders need not be capable of individual manual control.

(f) Systems of the type indicated in § 76.15–5(d), other than systems for tanks, which are of more than 300 pounds of carbon dioxide, shall be fitted with an approved delayed discharge so arranged that the alarm will be sounded for at least 20 seconds before the carbon dioxide is released into the space. Such systems of not more than 300 pounds of carbon dioxide shall also have a similar delayed discharge, except for those systems for tanks and for spaces which have a suitable horizontal escape. This paragraph shall be applicable only to systems installed on or after July 1, 1957.

(g) All distribution valves and controls shall be of an approved type. All controls shall be suitably protected.

(h) Complete but simple instructions for the operation of the systems must be located in a conspicuous place at or near all pull boxes, stop valve controls and in the CO_2 cylinder storage room. On systems in which the CO_2 cylinders are not within the protected space, these instructions must also include a schematic diagram of the system and instructions detailing alternate methods of discharging the system should the manual release or stop valve controls fail to operate. Each control valve to branch lines must be marked to indicate the related space served.

(i) If the space or enclosure containing the carbon dioxide supply or controls is to be locked, a key to the space or enclosure shall be in a break-glass-type box conspicuously located adjacent to the opening.

[CGFR 65–60, 30 FR 16940, Dec. 30, 1965, as amended by CGD 74–100R, 40 FR 6209, Feb. 10, 1975; USCG–1999–6216, 64 FR 53226, Oct. 1, 1999]

§ 76.15–15 Piping.

(a) The piping, valves, and fittings shall have a bursting pressure of not less than 6,000 p.s.i.

(b) All piping, in nominal sizes not over ¾ inch, shall be at least Schedule 40 (standard weight), and in nominal sizes over ¾ inch, shall be at least Schedule 80 (extra heavy).

(c) All piping, valves, and fittings of ferrous materials shall be protected inside and outside against corrosion unless specifically approved otherwise by the Commandant.

(d) A pressure relief valve or equivalent set to relieve between 2,400 and 2,800 p.s.i. shall be installed in the distributing manifold or such other location as to protect the piping in the event that all branch line shut-off valves are closed.

(e) All dead end lines shall extend at least 2 inches beyond the last orifice and shall be closed with cap or plug.

(f) All piping, valves, and fittings shall be securely supported, and where necessary, protected against injury.

(g) Drains and dirt traps shall be fitted where necessary to prevent the

accumulation of dirt or moisture. Drains and dirt traps shall be located in accessible locations where possible.

(h) Piping shall be used for no other purpose except that it may be incorporated with the fire detecting system.

(i) Piping passing through living quarters shall not be fitted with drains or other openings within such spaces.

(j) Installation test requirements:

(1) Upon completion of the piping installation, and before the cylinders are connected, a pressure test shall be applied as set forth in this paragraph. Only carbon dioxide or other inert gas shall be used for this test.

(2) The piping from the cylinders to the stop valves in the manifold shall be subjected to a pressure of 1,000 p.s.i. With no additional gas being introduced to the system, it shall be demonstrated that the leakage of the system is such as not to permit a pressure drop of more than 150 p.s.i. per minute for a 2-minute period.

(3) The individual branch lines to the various spaces protected shall be subjected to a test similar to that described in the preceding paragraph with the exception that the pressure used shall be 600 p.s.i. in lieu of 1,000 p.s.i. For the purpose of this test, the distribution piping shall be capped within the space protected at the first joint ahead of the nozzles.

(4) In lieu of the tests prescribed in the preceding paragraphs in this section, small independent systems protecting spaces such as emergency generator rooms, lamp lockers, etc., may be tested by blowing out the piping with air at a pressure of at least 100 p.s.i.

§ 76.15–20 Carbon dioxide storage.

(a) Except as provided in paragraph (b) of this section, the cylinders shall be located outside the spaces protected, and shall not be located in any space that might be cut off or made inaccessible in the event of a fire in any of the spaces protected.

(b) Systems of the type indicated in § 76.15–5(d), consisting of not more than 300 pounds of carbon dioxide, may have the cylinders located within the space protected. If the cylinder stowage is within the space protected, the system shall be arranged in an approved manner to be automatically operated by a heat actuator within the space in addition to the regular remote and local controls.

(c) The space containing the cylinders shall be properly ventilated and designed to preclude an anticipated ambient temperature in excess of 130 degrees F.

(d) Cylinders shall be securely fastened and supported, and, where necessary, protected against injury.

(e) Cylinders shall be so mounted as to be readily accessible and capable of easy removal for recharging and inspection. Provisions shall be available for weighing the cylinders.

(f) Where subject to moisture, cylinders shall be so installed as to provide a space of at least 2 inches between the flooring and the bottom of the cylinders.

(g) Cylinders shall be mounted in an upright position or inclined not more than 30 degrees from the vertical. However, cylinders which are fitted with flexible or bent siphon tubes may be inclined not more than 80 degrees from the vertical.

(h) Where check valves are not fitted on each independent cylinder discharge, plugs or caps shall be provided for closing outlets when cylinders are removed for inspection or refilling.

(i) All cylinders used for storing carbon dioxide must be fabricated, tested, and marked in accordance with §§ 147.60 and 147.65 of this chapter.

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by CGD 84–044, 53 FR 7748, Mar. 10, 1988; USCG–1999–6216, 64 FR 53226, Oct. 1, 1999; USCG–2041–0688, 79 FR 58282, Sept. 29, 2014]

§ 76.15–25 Discharge outlets.

(a) Discharge outlets shall be of an approved type.

(b) [Reserved]

§ 76.15–30 Alarms.

(a) Spaces which are protected by a carbon dioxide extinguishing system and are normally accessible to persons on board while the vessel is being navigated, other than paint and lamp lockers and similar small spaces, shall be fitted with an approved audible alarm in such spaces which will be automatically sounded when the carbon dioxide is admitted to the space. The alarm

shall be conspicuously and centrally located and shall be marked as required by § 78.47–9 of this subchapter. For systems installed on or after July 1, 1957, alarms will be mandatory only for systems required to be fitted with a delayed discharge. Such alarms shall be so arranged as to sound during the 20 second delay period prior to the discharge of carbon dioxide into the space, and the alarm shall depend on no source of power other than the carbon dioxide.

(b) [Reserved]

§ 76.15–35 Enclosure openings.

(a) Where mechanical ventilation is provided for spaces other than cargo and similar spaces which are protected by a carbon dioxide extinguishing system, provisions shall be made so that the ventilation system is automatically shut down with the operation of the system to that space.

(b) Where natural ventilation is provided for spaces protected by a carbon dioxide extinguishing system, provisions shall be made for easily and effectively closing off the ventilation.

(c) Means shall be provided for closing all openings to the space protected from outside such space. In this respect, relatively tight doors, shutters, or dampers shall be provided for openings in the lower portion of the space. The construction shall be such that openings in the upper portion of the space can be closed off either by permanently installed means or by the use of canvas or other material which is normally carried by the vessel.

§ 76.15–40 Pressure relief.

(a) Where necessary, relatively tight compartments such as refrigeration spaces, paint lockers, etc., shall be provided with suitable means for relieving excessive pressure accumulating within the compartment when the carbon dioxide is injected.

(b) [Reserved]

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15283, Dec. 6, 1966]

§ 76.15–50 Lockout valves.

(a) A lockout valve must be provided on any carbon dioxide extinguishing system protecting a space over 6,000 cubic feet in volume and installed or altered after July 9, 2013. ''Altered'' means modified or refurbished beyond the maintenance required by the manufacturer's design, installation, operation and maintenance manual.

(b) The lockout valve must be a manually operated valve located in the discharge manifold prior to the stop valve or selector valves. When in the closed position, the lockout valve must provide complete isolation of the system from the protected space or spaces, making it impossible for carbon dioxide to discharge in the event of equipment failure during maintenance.

(c) The lockout valve design or locking mechanism must make it obvious whether the valve is open or closed.

(d) A valve is considered a lockout valve if it has a hasp or other means of attachment to which, or through which, a lock can be affixed, or it has a locking mechanism built into it.

(e) The master or person-in-charge must ensure that the valve is locked open at all times, except while maintenance is being performed on the extinguishing system, when the valve must be locked in the closed position.

(f) Lockout valves added to existing systems must be approved by the Commandant as part of the installed system.

[USCG–2006–24797, 77 FR 33876, June 7, 2012]

§ 76.15–60 Odorizing units.

Each carbon dioxide extinguishing system installed or altered after July 9, 2013, must have an approved odorizing unit to produce the scent of wintergreen, the detection of which will serve as an indication that carbon dioxide gas is present in a protected area and any other area into which the carbon dioxide may migrate. ''Altered'' means modified or refurbished beyond the maintenance required by the manufacturer's design, installation, operation and maintenance manual.

[USCG–2006–24797, 77 FR 33877, June 7, 2012]

§ 76.15–90 Installations contracted for prior to November 19, 1952.

(a) Installations contracted for prior to November 19, 1952, shall meet the following requirements:

(1) Existing arrangements, materials, and facilities previously approved shall 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 shall be in general agreement with §§ 76.15–5 through 76.15–40 insofar as is reasonable and practicable, with the exception of § 76.15–5(d) (1) through (3) covering spaces other than cargo spaces, which systems may be installed in accordance with paragraphs (a) (3) through (6) of this section. However, the foregoing exception shall not be permitted for vessels on an international voyage.

(3) In boilerrooms, the bilges shall be protected by a system discharging principally below the floor plates. Perforated pipe may be used in lieu of discharge nozzles for such systems. The number of pounds of carbon dioxide shall be equal to the gross volume of the boiler room taken to the top of the boilers divided by 36. In the event of an elevated boilerroom which drains to the machinery space, the system shall be installed in the engine room bilge and the gross volume shall be taken to the flat on which the boilers are installed.

(4) In machinery spaces where main propulsion internal combustion machinery is installed, the number of pounds of carbon dioxide required shall be equal to the gross volume of the space taken to the underside of the deck forming the hatch opening divided by 22.

(5) In miscellaneous spaces other than cargo or main machinery spaces, the number of pounds of carbon dioxide required shall be equal to the gross volume of the space divided by 22.

(6) Branch lines to the various spaces other than cargo and similar spaces, shall be as noted in table 76.15–90(a)(6). This table is based on cylinders having discharge outlets and siphon tubes of ⅜-inch diameter.

TABLE 76.15–90(a)(6)

Number of cylinders		Nominal pipe size	
Over	Not over	Inches	Type
.....	2	½	Standard.
2	4	¾	Do.
4	6	1	Extra heavy.
6	12	1¼	Do.
12	16	1½	Do.
16	27	2	Do.
27	39	2½	Do.
39	60	3	Do.
60	80	3½	Do.
80	104	4	Do.
104	165	5	Do.

(b) [Reserved]

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by CGFR 67–87, 32 FR 19181, Dec. 20, 1967; USCG–1999–6216, 64 FR 53226, Oct. 1, 1999]

Subpart 76.17—Foam Extinguishing Systems, Details

§ 76.17–1 Application.

(a) Where a foam extinguishing system is installed, the provisions of this subpart, with the exception of § 76.17–90, shall apply to all installations contracted for on or after November 19, 1952. Installations contracted for prior to November 19, 1952, shall meet the requirements of § 76.17–90.

(b) [Reserved]

§ 76.17–5 Quantity of foam required.

(a) *Area protected.* (1) For machinery and similar spaces, the system shall be so designed and arranged as to spread a blanket of foam over the entire tank top or bilge of the space protected. The arrangement of piping shall be such as to give a uniform distribution over the entire area protected.

(2) Where an installation is made to protect an oil fired boiler installation on a flat which is open to or can drain to the lower engine room or other space, both the flat and the lower space shall be protected simultaneously. The flat shall be fitted with suitable coamings on all openings other than deck drains to properly restrain the oil and foam at that level. Other installations of a similar nature will be considered in a like manner.

(3) Where a system is installed to protect a tank, it shall be so designed and arranged as to spread a blanket of foam over the entire liquid surface of

the tank within the range of usual trim. The arrangement of piping shall be such as to give a uniform distribution over the entire area protected.

(b) *Rate of application.* (1) For spaces other than tanks, the rate of discharge to foam outlets protecting the hazard shall be at least as set forth in this subparagraph.

(i) For chemical foam systems with stored ''A'' and ''B'' solutions, a total of at least 1.6 gallons per minute of the two solutions shall be discharged for each 10 square feet of area protected.

(ii) For other types of foam systems, the water rate to the dry powder generators or air foam production equipment shall be at least 1.6 gallons per minute for each 10 square feet of area protected.

(2) For tanks, the rate of discharge to foam outlets protecting the hazard shall be as set forth in paragraph (b)(1) of this section except that the value of 1 gallon per minute shall be substituted in both cases for the value of 1.6 gallons per minute.

(c) *Supply of foam producing material.* (1) There shall be provided a quantity of foam producing material sufficient to operate the equipment at the discharge rate specified in paragraph (b) of this section for a period of at least 3 minutes for spaces other than tanks, and for at least 5 minutes for tanks.

(2) A separate supply of foam agent need not be provided for each space protected. The total available supply shall be at least sufficient for the space requiring the greatest amount.

(3) Where pumps are required, the water supply shall be from outside the space protected and shall in no way be dependent upon power from the space protected.

§ 76.17–10 Controls.

(a) The foam agent, its container, and all controls and valves for the operation of the system shall be of an approved type.

(b) The foam agent container and all controls and valves for the operation of the system shall be outside the space protected and shall not be located in such space as might be cut off or made inaccessible in the event of fire in any of the spaces protected. The control space shall be as convenient as practicable to one of the main escapes from spaces protected, and shall be marked as required by § 78.47–17 of this subchapter. Where pumps are required, it shall not be necessary that they be started from the control space.

(c) Complete, but simple instructions for the operation of the system shall be located in a conspicuous place at or near the controls.

(d) The valves to the various spaces served shall be marked as required by § 78.47–15 of this chapter.

§ 76.17–15 Piping.

(a) All piping, valves, and fittings shall meet the applicable requirements of subchapter F (Marine Engineering) of this chapter.

(b) All piping, valves, and fittings of ferrous materials shall be protected inside and outside against corrosion unless specifically approved otherwise by the Commandant.

(c) All piping, valves, and fittings shall be securely supported, and where necessary, protected against injury.

(d) Drains and dirt traps shall be fitted where necessary to prevent the accumulation of dirt or moisture.

(e) Piping shall be used for no other purpose.

§ 76.17–20 Discharge outlets.

(a) Discharge outlets shall be of an approved type.

(b) [Reserved]

§ 76.17–25 Additional protection required.

(a) In order that any residual fires above the floor plates may be extinguished when a foam system is installed for the protection of spaces other than tanks, at least 2 fire hydrants, in addition to those required for the machinery space by subpart 76.10, shall be installed outside of the machinery space entrances. Such hydrants shall be fitted with sufficient hose so that any part of the machinery space may be reached with at least 2 streams of water, and each hose shall be equipped with an approved combination nozzle, applicator, and self-cleaning strainer as described in § 76.10–10(j)(3).

(b) [Reserved]

§ 76.17–90 Installations contracted for prior to November 19, 1952.

(a) Installation contracted for prior to November 19, 1952, shall meet the following requirements:

(1) Existing arrangements, materials, and facilities previously approved shall 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 shall be in general agreement with §§ 76.17–5 through 76.17–20, with the exception of § 76.17–5(a)(2), insofar as is reasonable and practicable. A 6-inch blanket of foam in 5 minutes for tanks and 3 minutes for other spaces will be considered as meeting the requirements of § 76.17–5.

(b) [Reserved]

Subpart 76.23—Manual Sprinkling System, Details

§ 76.23–1 Application.

(a) Where a manual sprinkling system is installed, the provisions of this subpart, with the exception of § 76.23–90, shall apply to all installations contracted for on or after November 19, 1952. Installations contracted for prior to November 19, 1952, shall meet the requirements of § 76.23–90.

(b) [Reserved]

§ 76.23–5 Zoning.

(a) Separate zones may be used for each deck, and on any particular deck, spaces separated by ''A'' or ''B'' Class bulkheads may be separately zoned.

(b) On any particular deck, large common areas may be zoned in accordance with table 76.23–5(b). All such zones within one common area shall be of approximately the same size. Zones of this type shall overlap in such a manner that the end sprinkler heads of both adjoining zones will cover the identical area.

TABLE 76.23–5(b)

Square feet of common deck area		Maximum number of zones
Over	Not over	
.....	800	1
800	1,800	2
1,800	3,000	3
3,000	5,000	4
5,000	9,000	5
9,000	16,000	6
16,000	30,000	7
30,000	.....	8

§ 76.23–10 Quantity, pipe sizes, and discharge rates.

(a) *General.* (1) The system shall be so designed and arranged that the overhead is effectively sprayed and all portions of the deck are covered. The capacity shall be such that at least 12 gallons of water per minute are applied to each 100 square feet of deck area.

(2) Piping, fittings, sprinkler heads, and pumps installed in accordance with the remainder of this section will be considered as meeting the above requirements. If alternate sizes or arrangements are used, it shall be demonstrated that these minimum requirements have been met.

(b) *Sprinkler heads.* (1) Three-eighth inch open type sprinkler heads shall be used. Sprinkler heads shall be so arranged that no portion of the overhead is more than 7 feet from a sprinkler head.

(2) [Reserved]

(c) *Pipe sizes.* (1) The various pipe sizes shall be in proportion to the number of heads served. Minimum pipe sizes shall be as given in table 76.23–10(c).

TABLE 76.23–10(c)

Number of ⅜ inch heads served		Minimum nominal pipe sizes, inches
Over	Not over	
.....	1	¾
1	2	1
2	4	1¼
4	6	1½
6	12	2
12	18	2½
18	30	3
30	46	3½
46	66	4
66	120	5

(d) *Fire pumps.* (1) The fire pumps may be used for the sprinkling system

provided there is sufficient total capacity to operate the largest zone of the sprinkling system with a Pitot tube pressure of at least 15 p.s.i. at all heads and at the same time to deliver water from the two highest fire hose outlets in a manner similar to that described in § 76.10–5(c). In addition, on vessels over 750 gross tons, there shall be sufficient pumping capacity to also operate the second largest zone.

§ 76.23–15 Controls.

(a) The controls for the system shall be outside the spaces protected, and shall not be located in such space as might be cut off or made inaccessible in the event of fire in any of the spaces protected. The control space shall be marked as required by § 78.47–18 of this subchapter. It shall not be necessary to start the pumps from the control space.

(b) Distribution piping to the various zones shall be controlled from one station. Each branch line to the various zones shall be fitted with a stop valve which shall be marked as required by § 78.47–15 of this subchapter.

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2004–18884, 69 FR 58347, Sept. 30, 2004]

§ 76.23–20 Piping.

(a) All piping, valves, and fittings shall meet the applicable requirements of subchapter F (Marine Engineering) of this chapter.

(b) All piping, valves, and fittings of ferrous materials shall be protected inside and outside against corrosion unless specifically approved by the Commandant.

(c) All piping, valves, fittings, and sprinkler heads shall be securely supported, and where necessary, protected against injury.

(d) Drains and dirt traps shall be fitted where necessary to prevent the accumulation of dirt or moisture.

(e) Piping shall be used for no other purpose.

§ 76.23–25 Sprinkler heads.

(a) Sprinkler heads shall be of an approved type.

(b) [Reserved]

§ 76.23–90 Installations contracted for prior to November 19, 1952.

(a) Installations contracted for prior to November 19, 1952, shall meet the following requirements:

(1) Existing arrangements, materials, and facilities previously approved shall 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 replacements may be made to the same standards as the original installation.

(2) The details of the system shall be in general agreement with §§ 76.23–5 through 76.23–25 insofar as is reasonable and practicable. Existing piping, pumping facilities, and sprinkler heads or perforated pipes may be retained provided all portions of the overhead are effectively sprayed and all portions of the deck are covered.

(b) [Reserved]

Subpart 76.25—Automatic Sprinkling System, Details

§ 76.25–1 Application.

Automatic sprinkler systems must comply with Chapter 25 of NFPA 13 (incorporation by reference, see § 76.01–2).

[USCG–2012–0196, 81 FR 48255, July 22, 2016]

§§ 76.25–5—76.25–35 [Reserved]

§ 76.25–90 Installations contracted for prior to September 30, 1997.

(a) Existing arrangements, materials, and facilities previously approved shall 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 replacements may be made to the same standards as the original installation.

(b) The details of the system must be in general agreement with NFPA 13 (incorporated by reference, see 46 CFR 76.01–2) insofar as is reasonable and practicable. Existing piping, pumping facilities, sprinkler heads, and operating devices may be retained provided

a reasonable coverage of the spaces protected is assured.

[CGD 95–028, 62 FR 51204, Sept. 30, 1997, as amended by USCG–2003–16630, 73 FR 65192, Oct. 31, 2008]

Subpart 76.27—Fire Detection and Alarm System, Details

SOURCE: USCG–2012–0196, 81 FR 48255, July 22, 2016, unless otherwise noted.

§ 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
Safety Areas	
Wheelhouse or fire-control room	None required.[1]
Stairway and elevator enclosures	None required.[1]
Communication corridors	None required.[1]
Lifeboat embarkation and lowering stations	None required.
Radio room	None required.[1]
Accommodations	
Staterooms, toilet spaces, isolated pantries, etc	None required.[1]
Offices, lockers, and isolated storerooms	Electric, pneumatic, or automatic sprinkling.[1]
Public spaces	None required with 20-minute patrol. Electric, pneumatic, or automatic sprinkling with 1 hour patrol.[1]
Open decks or enclosed promenades	None required.
Service Spaces	
Galleys	None required.[1]
Main pantries	None required.[1]
Motion picture booths and film lockers	Electric, pneumatic, or automatic sprinkling.[1 2]
Paint and lamp rooms	Smoke detecting.[3]
Inaccessible baggage, mail, and specie rooms and storerooms	Smoke detecting.[3]
Accessible baggage, mail, and specie rooms and storerooms	Electric, pneumatic, or automatic sprinkling.
Refrigerated storerooms	None required.
Carpenter, valet, photographic, and printing shops, sales rooms, etc.	Electric, pneumatic, or automatic sprinkling.
Machinery Spaces	
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.

TABLE 76.27–80—INSTALLATIONS—Continued

Space	Detecting systems
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.
Cargo Spaces	
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.

[1] 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.
[2] Sprinkler heads may be attached to a sanitary system provided electrical or pneumatic detecting is installed.
[3] 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

§ 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]

[USCG–2012–0196, 81 FR 48258, July 22, 2016]

§ 76.30–5 Zoning.

(a) The fire detection system must be divided into separate zones to restrict the area covered by any particular alarm signal.

(b) 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.

(c) The fire detection zone must not include spaces on more than one deck, except:

(1) Adjacent and communicating spaces on different decks in the ends of the vessel, having a combined deck area of not more than 3,000 feet.

(2) 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.

(d) The fire detection zone must not include more than 50 protected rooms or spaces.

(e) Individual tubing circuits must not contain more than 1,000 feet of pneumatic tubing or its equivalent. However, more than one tubing circuit

may be included in the same fire detection zone.

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2012–0196, 81 FR 48258, July 22, 2016]

§ 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.

[USCG–2012–0196, 81 FR 48258, July 22, 2016]

§ 76.30–15 Operation and installation.

(a) The system must be so arranged and installed that the presence of a fire in any of the protected spaces will automatically be registered visibly and audibly in the pilothouse or fire control station. The visible notice must automatically indicate the zone in which the alarm originated. On vessels greater than 150 feet in length, there must also be an audible alarm in the engine room.

(b) The tubing or detecting devices, pneumatic-electric converting units, detecting cabinets, and alarms must be of an approved type.

(c) In general, the system must be adjusted to operate at a temperature rise of approximately 40 °F . per minute at the center of the circuit.

(d) The fire detection system must be used for no other purpose except that it may be incorporated with the manual alarm system.

(e) All wiring and electrical circuits and equipment must meet the applicable requirements of subchapter J (Electrical Engineering) of this chapter.

(f) 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.

(g) The audible alarms must be identified as required by § 78.47–13 of this subchapter.

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2012–0196, 81 FR 48258, July 22, 2016]

§ 76.30–90 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 76.27–35 insofar as is reasonable and practicable.

(b) [Reserved]

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2012–0196, 81 FR 48259, July 22, 2016]

Subpart 76.33—Smoke Detection System, Details

§ 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.

[USCG–2012–0196, 81 FR 48259, July 22, 2016]

§ 76.33–5 Zoning.

(a) The smoke detection system must be divided into separate zones to restrict the area covered by any particular alarm signal.

(b) The smoke detection zone must not include spaces on more than one deck, except the small adjacent spaces mentioned in paragraph (c) of this section.

(c) Each separate space must be considered as a zone, except that two or three small adjacent spaces having a combined volume not exceeding 5,000 cubic feet may be connected on the same zone.

(d) Where a space is of such size that one accumulator is not sufficient, not more than two accumulators may be combined in one zone.

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2012–0196, 81 FR 48259, July 22, 2016]

§ 76.33–10 Location and spacing of accumulators.

(a) Smoke accumulators must be located overhead in each compartment. Where liable to physical damage, the accumulators and piping must be suitably protected.

(b) No spot on the overhead of a protected space may be more than 40 feet from an accumulator.

(c) Accumulators must not be located closer to the opening of a ventilator than three times the diameter or equivalent diameter of the opening.

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2012–0196, 81 FR 48259, July 22, 2016]

§ 76.33–15 Piping.

(a) Individual pipes must be not less than ¾-inch standard pipe size.

(b) All piping, valves, and fittings of ferrous materials must be protected inside and outside against corrosion unless specifically approved otherwise by the Commandant.

(c) Where a smoke detection system serves a space used alternately for liquid and dry cargo, a valve must be installed between the tank and the detection cabinet so that the line may be shut off when liquids are carried. When the smoke detection system is combined with a fire extinguishing system, the operation of the valve must not affect the operation of the fire extinguishing system.

(d) All piping, valves, and fittings must be securely supported, and where necessary, protected against injury. The piping must be installed with as easy bends as practicable, and must be installed to grade to low points for drainage.

(e) Drains and dirt traps must be fitted where necessary to prevent the accumulation of dirt or moisture.

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2012–0832, 77 FR 59779, Oct. 1, 2012; USCG–2012–0196, 81 FR 48259, July 22, 2016]

§ 76.33–20 Operation and installation.

(a) The system must be so arranged and installed that the presence of smoke in any of the protected spaces will automatically be indicated visually to an observer directly in front of the detection cabinet. The visible notice must automatically indicate the zone in which the smoke originated. The detection cabinet must normally be located in the pilothouse or fire control station. On vessels greater than 5,000 gross tons, there must also be an automatic audible alarm in the wheelhouse together with an auxiliary audible alarm in the engine room.

(b) If the detection cabinet is not located in the pilothouse or fire control station, it must be located in convenient proximity to the valve control station of the extinguishing system. In this case, there must be in the pilothouse or fire control station automatic visual alarms, one for each zone in which an alarm may originate, as well as an automatic audible alarm. There must also be an auxiliary audible alarm in the engine room. For installations contracted for on or after January 1, 1962, where detection cabinets are not located in the pilothouse or an adjacent fire control station having direct access to the pilothouse, an efficient means of direct communication

must be provided between the pilothouse and the stations where the detection cabinets are located.

(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.

(d) The smoke detection system must be used for no other purpose except that it may be incorporated with the fire extinguishing system to the spaces covered by the smoke detection system.

(e) The accumulators, detection cabinet, interconnecting valves with the fire extinguishing system, alarms, and indicating devices must be of an approved type.

(f) All wiring and electrical circuits and equipment must meet the applicable requirements of subchapter J (Electrical Engineering) of this chapter.

(g) A framed chart or diagram must be installed adjacent to the detection cabinet and auxiliary panel indicating the location of the various zones and giving instructions for the operation, maintenance, and testing of the system. The chart at the cabinet location 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.

(h) The audible smoke detection alarms must be identified as required by § 78.47–13 of this subchapter.

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2012–0196, 81 FR 48259, July 22, 2016]

§ 76.33–90 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, material, 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 76.27–35 insofar as is reasonable and practicable.

(b) [Reserved]

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2012–0196, 81 FR 48259, July 22, 2016]

Subpart 76.35—Manual Alarm System, Details

§ 76.35–1 Application.

(a) Where a manual alarm system is installed, the provisions of this subpart, with the exception of § 76.35–90, 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 § 76.35–90.

(b) [Reserved]

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2012–0196, 81 FR 48259, July 22, 2016]

§ 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).

(b) [Reserved]

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2012–0196, 81 FR 48259, July 22, 2016]

§ 76.35–10 Location and spacing of manual alarm stations.

(a) There must be at least one manual alarm station in each zone.

(b) Manual alarms 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.

(c) In general, a sufficient number of manual alarm stations must be employed that a person escaping from any space would find a manual alarm station convenient on his normal route of escape.

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2012–0196, 81 FR 48259, July 22, 2016]

§ 76.35–15 Operation and installation.

(a) The system must be so arranged and installed that the presence of a fire may be reported from any of the protected spaces and 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. There must also be an audible alarm in the engine room.

(b) The manual alarm stations, cabinet, and alarms must be of an approved type.

(c) The manual alarm system must be used for no other purpose, except that it may be incorporated with the fire detection system.

(d) All wiring and electrical circuits and equipment must meet the applicable requirements of subchapter J (Electrical Engineering) of this chapter.

(e) A framed chart or diagram must be installed in the wheelhouse or control station adjacent to the detection cabinet indicating the location of the various detection zones and giving instructions for the operation, maintenance, and testing of the system. This chart, or a separate 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.

(f) The manual alarm stations and bells must be identified as required by § 78.47–10 of this subchapter.

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2012–0196, 81 FR 48259, July 22, 2016]

§ 76.35–90 Installations contracted for prior to November 19, 1952.

(a) Installations contracted for prior to November 19, 1952, shall meet the following requirements:

(1) Existing arrangements, materials, and equipment previously approved shall 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 shall be in general agreement with §§ 76.35–5 through 76.35–15 insofar as is reasonable and practicable.

(b) [Reserved]

Subpart 76.50—Hand Portable Fire Extinguishers and Semiportable Fire Extinguishing Systems, Arrangements and Details

§ 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.

[USCG–2012–0196, 81 FR 48259, July 22, 2016]

§ 76.50–5 [Reserved]

§ 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
Safety Area [1]		
Wheelhouse or fire control room	20–B:C	1 of each classification on vessels over 1,000 GT. (Not required in both spaces.) (Multiple classifications may be recognized.)
Stairway and elevator enclosures		None required.
Communicating corridors	2–A	1 in each main corridor in each main vertical zone. (May be located in stairway enclosures.)
Lifeboat embarkation and lowering stations		None required.
Radio room	20–B:C [3]	2 in the vicinity of the exit.[2]
Accommodations [1]		
Staterooms, toilet spaces, isolated pantries, etc		None required.
Offices, lockers, and isolated storerooms		None required.
Public spaces	2–A	1 for each 2,500 sq ft or fraction thereof located in vicinity of the exits, except that none are required for spaces under 500 sq ft.
Open decks or enclosed promenades		None required.
Service Spaces		
Galleys	40–B:C	1 for each 2,500 sq ft or fraction thereof suitable for hazards involved.
Main pantries	2–A	1 for each 2,500 sq ft or fraction thereof located in the vicinity of the exits.
Motion picture booths and film lockers	10–B:C [3]	1 outside in the vicinity of the exit.
Paint and lamp rooms	40–B	1 outside space in the vicinity of the exit.
Inaccessible baggage, mail, and specie rooms, and storerooms.		None required.
Accessible baggage, mail, and specie rooms, and storerooms.	2–A	1 for each 2,500 sq ft or fraction thereof located in the vicinity of the exits, either inside or outside the spaces.
Refrigerated storerooms	2–A	1 for each 2,500 sq ft or fraction thereof located in the vicinity of the exits, outside the spaces.
Carpenter, valet, photographic, printing shops sales rooms, etc.	2–A	1 outside the space in the vicinity of the exit.
Machinery Spaces		
Coal-fired boilers: Bunker and boiler space		None required.
Oil-fired boilers: Spaces, containing oil fired boilers, either main or auxiliary, or their fuel oil units.	40–B	2 required.[3]
	160–B	1 required.[4]
Internal combustion or gas turbine propelling machinery spaces.	40–B	1 for each 1,000 brake horsepower, but not less than 2 or more than 6.
	120–B	1 required.[5]
Electric propulsive motors or generators of open type.	40–B:C	1 for each propulsion motor or generator unit.
Enclosed ventilating systems for motors and generators of electric propelling machinery.		None required.
Auxiliary spaces, internal combustion or gas turbine.	40–B	1 outside the space in the vicinity of the exit.[6]
Auxiliary spaces, electric emergency motors or generators.	40–B:C	1 outside the space in the vicinity of the exit.[6]
Auxiliary spaces, steam		None required.
Trunks to machinery spaces		None required.
Fuel tanks		None required.
Cargo Spaces		
Inaccessible during voyage, including trunks (excluding tanks).		None required.
Accessible during voyage	2–A	1 for each 1,200 sq ft or fraction thereof.
Vehicular spaces (covered by a sprinkler system)	40–B	1, plus 1 for each 6,000 sq ft or fraction thereof.
Vehicular spaces (not covered by a sprinkler system).	40–B	1, plus 1 for each 1,500 sq ft or fraction thereof.[7]
Cargo oil tanks		None required.

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

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

[1] 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.
[2] For vessels on an international voyage, substitute 1 20–B:C in the vicinity of the exit.
[3] Vessels of less than 1,000 GT and not on an international voyage require 1.
[4] Vessels of less than 1,000 GT and not on an international voyage may substitute 1 160–B.
[5] 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.
[6] Not required on vessels of less than 300 GT if the fuel has a flashpoint higher than 110 °F.
[7] 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.

[USCG–2012–0196, 81 FR 48259, July 22, 2016]

§ 76.50–20 Semi-portable fire extinguishers.

(a) The frame or support of each semi-portable fire extinguisher required by table 76.50–10(a) must be welded or otherwise permanently attached to a bulkhead or deck.

(b) If an approved semi-portable fire extinguisher has wheels and is not required by table 76.50–10(a), it must be securely stowed when not in use to prevent it from rolling out of control under heavy sea conditions.

(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.

[CGD 77–039, 44 FR 34132, June 14, 1979, as amended by USCG–2012–0196, 81 FR 48261, July 22, 2016]

§ 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]

[USCG–2012–0196, 81 FR 48261, July 22, 2016]

§ 76.50–90 Vessels contracted for prior to November 19, 1952.

(a) Vessels contracted for prior to November 19, 1952, shall meet the following requirements:

(1) The provisions of §§ 76.50–5 through 76.50–15 shall be met with the exception that existing installations in

safety areas, accommodations, service spaces, and cargo spaces may be maintained if in the opinion of the Officer in Charge, Marine Inspection, they are in general agreement with the standard of safety prescribed by table 76.50–10(a). In such cases, minor modifications may be made to the same standards as the original installation, provided that in no case will a greater departure from the standards of table 76.50–10(a) be permitted than presently exists.

(2) [Reserved]

(b) [Reserved]

Subpart 76.60—Fire Axes

§ 76.60–1 Application.

(a) The provisions of this subpart shall apply to all vessels.

(b) [Reserved]

§ 76.60–5 Number required.

(a) All vessels except barges shall carry at least the minimum number of fire axes as set forth in table 76.60–5(a). Nothing in this paragraph shall be construed as limiting the Officer in Charge, Marine Inspection, from requiring such additional fire axes as he deems necessary for the proper protection of the vessel.

TABLE 76.60–5(a)

Gross tons		Number of axes
Over	Not over	
.....	50	1
50	200	2
200	500	4
500	1,000	6
1,000	.....	8

(b) Covered barges shall carry at least three fire axes and uncovered barges shall carry at least two fire axes.

§ 76.60–10 Location.

(a) Fire axes shall be distributed throughout the spaces available to passengers and crew so as to be most readily available in the event of emergency.

(b) If fire axes 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 fire hose, provided such enclosures are marked as required by § 78.47–20 of this subchapter.

PART 77—VESSEL CONTROL AND MISCELLANEOUS SYSTEMS AND EQUIPMENT

Subpart 77.01—Application

Sec.

77.01–1 General.
77.01–3 Incorporation by reference.

Subpart 77.03—Marine Engineering Systems

77.03–1 Installation and details.

Subpart 77.05—Electrical Engineering and Interior Communication Systems

77.05–1 Installation and details.

Subpart 77.06—Lifesaving Appliances and Arrangements

77.06–1 Installation.

Subpart 77.07—Anchors, Chains, and Hawsers

77.07–1 Application.
77.07–5 Ocean, coastwise, or Great Lakes service.
77.07–10 Lakes, bays, and sounds, or river service.
77.07–90 Vessels contracted for prior to November 19, 1952.

Subpart 77.09—Radar

77.09–1 When required.

Subpart 77.11—Magnetic Compass and Gyrocompass

77.11–1 When required.

Subpart 77.27—Sounding Equipment

77.27–1 When required.

Subpart 77.30—Emergency Equipment

77.30–1 Application.
77.30–5 General.
77.30–10 Stowage.
77.30–15 Spare charges.
77.30–90 Vessels contracted for before November 23, 1992.

Subpart 77.35—Fireman's Outfit

77.35–1 Application.
77.35–5 General.
77.35–10 Fireman's outfit.
77.35–15 Stowage.

77.35–20 Spare charges.
77.35–90 Vessels contracted for before November 23, 1992.

Subpart 77.40—Pilot Boarding Equipment

77.40–1 Pilot boarding equipment.

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.

SOURCE: CGFR 65–50, 30 FR 16953, Dec. 30, 1965, unless otherwise noted.

Subpart 77.01—Application

§ 77.01–1 General.

(a) The provisions of this part shall apply to all vessels except as specifically noted.

(b) [Reserved]

§ 77.01–3 Incorporation by reference.

(a) Certain materials are incorporated by reference into this part with the approval of the Director of the Federal Register in accordance with 5 U.S.C. 552(a). To enforce any edition other than the one listed in paragraph (b) of this section, notice of the change must be published in the FEDERAL REGISTER and the material made available to the public. All approved material is on file at the Office of the Federal Register, Washington, DC 20408, and at Coast Guard Headquarters. Contact Commandant (CG-ENG), Attn: Office of Design and Engineering Systems, U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue, SE., Washington, DC 20593-7509. The material is also available from the address indicated in paragraph (b).

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

American Society for Testing and Materials (ASTM)

100 Barr Harbor Drive, West Conshohocken, PA 19428–2959.

ASTM F 1014–92, Standard Specification for Flashlights on Vessels—77.35–5

[CGD 82–042, 53 FR 17704, May 18, 1988, as amended by CGD 95–072, 60 FR 50463, Sept. 29, 1995; CGD 96–041, 61 FR 50729, Sept. 27, 1996; CGD 97–057, 62 FR 51045, Sept. 30, 1997; USCG–1999–5151, 64 FR 67181, Dec. 1, 1999; USCG–2009–0702, 74 FR 49231, Sept. 25, 2009; USCG–2012–0832, 77 FR 59779, Oct. 1, 2012; USCG–2013–0671, 78 FR 60150, Sept. 30, 2013]

Subpart 77.03—Marine Engineering Systems

§ 77.03–1 Installation and details.

(a) The installation of all systems of a marine engineering nature, together with the details of design, construction, and installation, shall be in accordance with the requirements of subchapter F (Marine Engineering) of this chapter. Systems of this type include the following:

Steering systems.
Power for going astern.
Bilge and ballast systems.
Tank vent and sounding systems.
Overboard discharges and shell connections.
Pipe and pressure systems.

(b) [Reserved]

Subpart 77.05—Electrical Engineering and Interior Communication Systems

§ 77.05–1 Installation and details.

(a) The installation of all systems of an electrical engineering or interior communications nature, together with the details of design, construction, and installation, shall be in accordance with the requirements of subchapter J (Electrical Engineering) of this chapter. Systems of this type include the following:

Ship's service generating systems.
Ship's service power distribution systems.
Ship's lighting systems.
Electric propulsion and propulsion control systems.
Emergency lighting and power systems.
Electric lifeboat winch systems.
Electric steering gear and steering control systems.
Fire detecting and alarm systems
Sound powered telephone and voice tube systems.
Engine order telegraph systems.
Rudder angle indicator systems.
Refrigerated spaces alarm systems.
Navigation lights systems.
Daylight signaling lights.
Miscellaneous machinery alarms and controls.
General alarm systems.

(b) Electrical equipment installed in spaces ''specially suitable for vehicles'' shall be in accordance with subchapter

J (Electrical Engineering) of this chapter.

[CGFR 65–50, 30 FR 16953, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15283, Dec. 6, 1966; CGFR 68–32, 33 FR 5716, Apr. 12, 1968; CGD 74–125A, 47 FR 15231, Apr. 8, 1982]

Subpart 77.06—Lifesaving Appliances and Arrangements

§ 77.06–1 Installation.

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

[CGD 84–069, 61 FR 25288, May 20, 1996]

Subpart 77.07—Anchors, Chains, and Hawsers

§ 77.07–1 Application.

(a) The provisions of this subpart, with the exception of § 77.07–90, shall apply to all vessels contracted for on or after November 19, 1952. Vessels contracted for prior to November 19, 1952, shall meet the requirements of § 77.07–90.

(b) [Reserved]

§ 77.07–5 Ocean, coastwise, or Great Lakes service.

(a) Vessels in ocean, coastwise, or Great Lakes service shall be fitted with anchors, chains, and hawsers in general agreement with the standards established by the American Bureau of Shipping, see subpart 70.35 of this subchapter.

(b) In addition to the provisions of paragraph (a) of this section, the following requirements and alternatives also apply:

(1) The American Bureau of Shipping rules relating to anchor equipment are mandatory, not a guide.

(2) Vessels under 200 feet (61 meters) in length and with an American Bureau of Shipping equipment number of less than 150 may be equipped with either—

(i) One anchor of the tabular weight and one-half the tabulated length of anchor chain listed in the applicable standard, or

(ii) Two anchors of one-half the tabular weight with the total length of anchor chain listed in the applicable standard provided both anchors are in a position that allows for ready use at all times and the windlass is capable of heaving in either anchor.

(c) Standards of other recognized classification societies may be used, in lieu of those established by the American Bureau of Shipping, upon approval by the Commandant.

[CGFR 65–50, 30 FR 16953, Dec. 30, 1965, as amended by CGD 87–013, 53 FR 20624, June 6, 1988]

§ 77.07–10 Lakes, bays, and sounds, or river service.

(a) Vessels in lakes, bays, and sounds, or river service shall be fitted with such ground tackle and hawsers as deemed necessary by the Officer in Charge, Marine Inspection, depending upon the size of the vessel and the waters on which it operates.

(b) [Reserved]

§ 77.07–90 Vessels contracted for prior to November 19, 1952.

(a) Vessels contracted for prior to November 19, 1952, shall meet the following requirements:

(1) Installations previously accepted or approved shall be considered satisfactory for the same service so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. If the service of the vessel is changed, the suitability of the equipment will be established by the Officer in Charge, Marine Inspection.

(2) [Reserved]

(b) [Reserved]

Subpart 77.09—Radar

§ 77.09–1 When required.

All mechanically propelled vessels of 1,600 gross tons and over in ocean or coastwise service must be fitted with a marine radar system for surface navigation. Facilities for plotting radar readings must be provided on the bridge.

[CGD 75–074, 42 FR 5963, Jan. 31, 1977]

Subpart 77.11—Magnetic Compass and Gyrocompass

§ 77.11–1 When required.

(a) All mechanically propelled vessels in ocean, coastwise or Great Lakes service must be fitted with a magnetic compass.

(b) All mechanically propelled vessels 1,600 gross tons and over in ocean or coastwise service must be fitted with a gyrocompass in addition to the magnetic compass.

(c) Each vessel must have an illuminated repeater for the gyrocompass required under paragraph (b) of this section, that is at the main steering stand unless the gyrocompass is illuminated and is at the main steering stand.

[CGD 75–074, 42 FR 5963, Jan. 31, 1977]

Subpart 77.27—Sounding Equipment

§ 77.27–1 When required.

All mechanically propelled vessels of 500 gross tons and over to ocean or coastwise service, and all mechanically propelled vessels of 500 gross tons and over in Great Lakes service and certificated for service on the River St. Lawrence eastward of the lower exit of the St. Lambert Lock at Montreal, Canada, must be fitted with an efficient electronic deep-sea sounding apparatus.

[CGD 95–027, 61 FR 26004, May 23, 1996]

Subpart 77.30—Emergency Equipment

§ 77.30–1 Application.

This subpart, except § 77.30–90, applies to each vessel that is not on an international voyage and is contracted for on or after November 23, 1992. Each vessel that is not on an international voyage and is contracted for before November 23, 1992, must satisfy § 77.30–90.

[CGD 86–036, 57 FR 48324, Oct. 23, 1992]

§ 77.30–5 General.

(a) Each self-contained breathing apparatus must be of the pressure-demand, open-circuit type, approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH), and have at a minimum a 30-minute air supply and a full facepiece.

(b) The self-contained breathing apparatus required as part of the emergency outfit may be used as protection against gas leaking from a refrigeration unit.

(c) All flame safety lamps shall be of an approved type, constructed in accordance with subpart 160.016 of subchapter Q (Specifications) of this chapter.

(d) All emergency equipment shall be maintained in an operative condition, and it shall be the responsibility of the master and chief engineer to ascertain that a sufficient number of the crew are familiar with the operation of the equipment.

[CGFR 65–50, 30 FR 16953, Dec. 30, 1965, as amended by CGD 86–036, 57 FR 48324, Oct. 23, 1992]

§ 77.30–10 Stowage.

(a) The equipment set forth in table 77.30–10(a), together with such other items as the master may deem necessary, shall be stowed in convenient, accessible locations for use in case of emergency.

TABLE 77.30–10(a)

Service	Number of passenger staterooms	Self-contained breathing apparatus	Self-contained breathing apparatus for refrigeration [1]	Flame safety lamps
Ocean and coastwise, not on an international voyage	0 to 49	.....	1	.....
	50 to 100	4	1	.....
	Over 100	6	1	1
Great Lakes, and lakes, bays, and sounds	0 to 49	.....	1	.....
	50 to 100	2	1	.....
	Over 100	4	1	1
Rivers	0 to 49	.....	1	.....
	50 to 100	1	1	.....

TABLE 77.30–10(a)—Continued

Service	Number of passenger staterooms	Self-contained breathing apparatus	Self-contained breathing apparatus for refrigeration [1]	Flame safety lamps
	Over 100	2	1	1

[1] Required only on vessels equipped with any refrigeration unit using ammonia to refrigerate any space with a volume of more than 20 cubic feet or with any refrigeration unit using fluorocarbons to refrigerate any space with a volume of more than 1000 cubic feet.

(b) If a separate self-contained breathing apparatus is maintained for protection against gas leaking from a refrigeration unit, it must be stowed convenient to, but outside of, the spaces containing the refrigeration equipment.

(c) Half of the remaining equipment set forth in table 77.30–10(a) shall be stowed in or near the pilothouse together with a fire axe and the hand portable fire extinguishers required by table 76.50–10(a) for that location. The other half of the equipment shall be stowed in a convenient accessible location, remote from the pilothouse, and preferably adjacent to the main entrance to the machinery space. Where only one of an item is required, it shall be stowed in the pilothouse.

[CGFR 65–50, 30 FR 16953, Dec. 30, 1965, as amended by CGD 86–036, 57 FR 48324, Oct. 23, 1992]

§ 77.30–15 Spare charges.

(a) A complete recharge shall be carried for each gas mask and self-contained breathing apparatus. The spare charge shall be stowed in the same location as the equipment it is to reactivate.

(b) [Reserved]

§ 77.30–90 Vessels contracted for before November 23, 1992.

Vessels contracted for before November 23, 1992, must meet the following requirements:

(a) Each vessel must satisfy §§ 77.30–5 through 77.30–15 concerning the number of items and the method of stowage of equipment.

(b) Items of equipment previously approved, but not meeting the applicable specifications set forth in § 77.30–5, may continue in service as long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection; but each item in an installation or a replacement must meet all applicable specifications.

(c) After November 23, 1994, each respirator must either satisfy § 77.30–5(a) or be a self-contained compressed-air breathing apparatus previously approved by MSHA and NIOSH under part 160, subpart 160.011, of this chapter.

[CGD 86–036, 57 FR 48324, Oct. 23, 1992]

Subpart 77.35—Fireman's Outfit

§ 77.35–1 Application.

This subpart, except § 77.35–90, applies to each vessel that is on an international voyage and is contracted for on or after November 23, 1992. Each vessel that is on an international voyage and is contracted for before November 23, 1992, must satisfy § 77.35–90.

[CGD 86–036, 57 FR 48325, Oct. 23, 1992]

§ 77.35–5 General.

(a) All flame safety lamps shall be of an approved type, constructed in accordance with subpart 160.016 of subchapter Q (Specifications) of this chapter.

(b) Each self-contained breathing apparatus must be of the pressure-demand, open-circuit type, approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH), and have at a minimum a 30-minute air supply and a full facepiece.

(c) Flashlights shall be Type II or Type III, constructed and marked in accordance with ASTM F 1014 (incorporated by reference, see § 77.01–3).

(d) All lifelines shall be of steel or bronze wire rope. Steel wire ropes shall

be either inherently corrosion resistant, or made so by galvanizing or tinning. Each end shall be fitted with a hook with keeper having throat opening which can be readily slipped over a ⅝-inch bolt. The total length of the lifeline shall be dependent upon the size and arrangement of the vessel, and more than one line may be hooked together to achieve the necessary length. No individual length of lifeline may be less than 50 feet in length. The assembled lifeline shall have a minimum breaking strength of 1,500 pounds.

(e) All equipment shall be maintained in an operative condition, and it shall be the responsibility of the master and chief engineer to ascertain that a sufficient number of the crew are familiar with the operation of the equipment.

(f) Boots and gloves shall be of rubber or other electrically nonconducting material.

(g) The helmet shall provided effective protection against impact.

(h) Protective clothing shall be of material that will protect the skin from the heat of fire and burns from scalding steam. The outer surface shall be water resistant.

[CGFR 65–50, 30 FR 16953, Dec. 30, 1965, as amended by CGFR 67–87, 32 FR 19181, Dec. 20, 1967; CGD 82–042, 53 FR 17704, May 18, 1988; CGD 86–036, 57 FR 48325, Oct. 23, 1992; USCG–1999–5151, 64 FR 67181, Dec. 1, 1999; USCG–2014–0688, 79 FR 58282, Sept. 29, 2014]

§ 77.35–10 Fireman's outfit.

(a) Each fireman's outfit must consist of one self-contained breathing apparatus, one lifeline with a belt or a suitable harness, one flashlight, one flame safety lamp, one rigid helmet, boots and gloves, protective clothing, and one fire ax. In lieu of the flame safety lamp, vessels may carry an oxygen depletion meter which is listed by a Coast Guard recognized independent laboratory as intrinsically safe.

(b) The number of fireman's outfits required are as set forth in table 77.35–10(b).

TABLE 77.35–10(b)

Gross tonnage		Minimum number of fireman's outfits
Over—	Not over—	
.....	10,000	2
10,000	20,000	3
20,000	.....	4

[CGFR 65–50, 30 FR 16953, Dec. 30, 1965, as amended by CGFR 67–87, 32 FR 19181, Dec. 20, 1967; CGD 86–036, 57 FR 48325, Oct. 23, 1992; CGD 95–028, 62 FR 51204, Sept. 30, 1997]

§ 77.35–15 Stowage.

(a) The fireman's outfit, together with such other items of equipment as the master may deem necessary, shall be stowed in convenient, accessible locations for use in case of emergency. One outfit shall be stowed in or near the pilothouse. Where additional outfits are required by table 77.35–10(b), one of the additional outfits shall be stowed preferably adjacent to the main entrance to the machinery space. Other additional outfits shall be stowed in convenient accessible locations remote from the pilothouse.

(b) [Reserved]

§ 77.35–20 Spare charges.

(a) A complete recharge shall be carried for each self-contained breathing apparatus, and a complete set of spare batteries shall be carried for each flashlight. The spares shall be stowed in the same location as the equipment it is to reactivate.

(b) [Reserved]

§ 77.35–90 Vessels contracted for before November 23, 1992.

Vessels contracted for before November 23, 1992, must meet the following requirements:

(a) Each vessel must satisfy §§ 77.35–5 through 77.35–20 concerning the number of items and the method of stowage of equipment.

(b) Items of equipment previously approved, but not meeting the applicable specifications set forth in § 77.35–5, may continue in service as long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection; but each item in an installation or a replacement must meet all applicable specifications.

(c) After November 23, 1994, each respirator must either satisfy § 77.35–5(b) or be a self-contained compressed-air breathing apparatus previously approved by MSHA and NIOSH under part 160, subpart 160.011, of this chapter.

[CGD 86–036, 57 FR 48325, Oct. 23, 1992]

Subpart 77.40—Pilot Boarding Equipment

§ 77.40–1 Pilot boarding equipment.

(a) This section applies to each vessel that normally embarks or disembarks a pilot from a pilot boat or other vessel.

(b) Each vessel must have suitable pilot boarding equipment available for use on each side of the vessel. If a vessel has only one set of equipment, the equipment must be capable of being easily transferred to and rigged for use on either side of the vessel.

(c) Pilot boarding equipment must be capable of resting firmly against the vessel's side and be secured so that it is clear from overboard discharges.

(d) Each vessel must have lighting positioned to provide adequate illumination for the pilot boarding equipment and each point of access.

(e) Each vessel must have a point of access that has—

(1) A gateway in the rails or bulwark with adequate handholds; or

(2) Two handhold stanchions and a bulwark ladder that is securely attached to the bulwark rail and deck.

(f) The pilot boarding equipment required by paragraph (b) of this section must include at least one pilot ladder approved under subpart 163.003 of this chapter. Each pilot ladder must be of a single length and capable of extending from the point of access to the water's edge during each condition of loading and trim, with an adverse list of 15°.

(g) Whenever the distance from the water's edge to the point of access is more than 30 feet, access from a pilot ladder to the vessel must be by way of an accommodation ladder or equally safe and convenient means.

(h) Pilot hoists, if used, must be approved under subpart 163.002 of this chapter.

[CGD 79–032, 49 FR 25455, June 21, 1984]

PART 78—OPERATIONS

Subpart 78.01—Application

Sec.
78.01–1 General; preemptive effect.
78.01–2 Incorporation by reference.

Subpart 78.05—Notice to Mariners and Aids to Navigation

78.05–1 Duty of officers.
78.05–5 Charts and nautical publications.

Subpart 78.07—Notice and Reporting of Casualty and Voyage Records

78.07–1 Notice and reporting of casualty and voyage records.

Subpart 78.10—Persons Allowed in Pilothouse and on Navigation Bridge

78.10–1 Persons excluded.

Subpart 78.12—Stability Information

78.12–1 Posting of stability letter.

Subpart 78.13—Station Bills

78.13–1 Muster lists, emergency signals, and manning.

Subpart 78.15—Doors Closed at Sea

78.15–1 Subdivision bulkheads.

Subpart 78.16—Port Lights

78.16–1 General.

Subpart 78.17—Tests, Drills, and Inspections

78.17–1 Application.
78.17–3 Watertight doors.
78.17–5 Valves and closing appliances.
78.17–10 Loudspeaker system.
78.17–15 Steering gear, whistle, and means of communication.
78.17–20 Drafts and load line markings.
78.17–22 Verfication of vessel compliance with applicable stability requirements.
78.17–25 Sanitation.
78.17–30 Examination of boilers and machinery.
78.17–33 Loading doors.
78.17–35 Hatches and other openings.
78.17–45 Emergency lighting and power systems.
78.17–50 Emergency training, musters, and drills.
78.17–65 Smoke detecting system.
78.17–75 Requirements for fuel oil.
78.17–80 Firefighting equipment, general.

Subpart 78.19—Auto Pilot

78.19–1 Use of auto pilot.

Subpart 78.21—Maneuvering Characteristics

78.21–1 Data required.

Subpart 78.23—Whistling

78.23–1 Unnecessary whistling prohibited.

Subpart 78.27—Searchlights

78.27–1 Improper use prohibited.

Subpart 78.30—Lookouts, Pilothouse Watch, Patrolmen, and Watchmen

78.30–5 Pilothouse watch.
78.30–10 Supervised patrol.
78.30–15 Watchmen.
78.30–20 Master's and officer's responsibility.

Subpart 78.33—Reports of Accidents, Repairs, and Unsafe Equipment

78.33–1 Repairs of boiler and pressure vessels.
78.33–5 Accidents to machinery.
78.33–10 Notice required before repairs.

Subpart 78.35—Communication Between Deckhouses

78.35–1 When required.

Subpart 78.36—Work Vests

78.36–1 Application.
78.36–5 Approved types of work vests.
78.36–10 Use.
78.36–15 Shipboard stowage.
78.36–20 Shipboard inspections.
78.36–25 Additional requirements for hybrid work vests.

Subpart 78.37—Logbook Entries

78.37–1 Application.
78.37–3 Logbooks and records.
78.37–5 Actions required to be logged.
78.37–10 Official log entries.

Subpart 78.40—Vehicular Ferries

78.40–1 Stowage of vehicles.
78.40–5 Securing of vehicles.
78.40–10 No smoking permitted.

Subpart 78.45—Display of Plans

78.45–1 When required.

Subpart 78.47—Markings for Fire and Emergency Equipment, Etc.

78.47–1 Application.
78.47–3 General.
78.47–5 General alarm contact makers.
78.47–7 General alarm bells.
78.47–9 Carbon dioxide and clean agent alarms.
78.47–10 Manual alarm boxes.
78.47–11 Carbon dioxide warning signs.
78.47–13 Fire and automatic sprinkler alarm indicators.
78.47–15 Fire extinguishing system branch lines.
78.47–17 Fire extinguishing system controls.
78.47–20 Fire hose stations.
78.47–23 Supervised patrol stations.
78.47–25 Emergency squad equipment.
78.47–27 Self-contained breathing apparatus.
78.47–30 Hand portable fire extinguishers.
78.47–33 Emergency lights.
78.47–35 Fire doors.
78.47–37 Watertight doors.
78.47–38 Valves and closing appliances.
78.47–40 Exit signs.
78.47–45 Markings for lifesaving appliances, instructions to passengers, and stowage locations.
78.47–53 Automatic ventilation dampers.
78.47–55 Instructions for changing steering gear.
78.47–57 Rudder orders.
78.47–70 Portable magazine chests.
78.47–75 Ventilation alarm failure.
78.47–90 Vessels contracted for prior to November 19, 1952.

Subpart 78.50—Markings on Vessels

78.50–1 Application.
78.50–5 Hull markings.
78.50–10 Draft marks and draft indicating systems.
78.50–15 Load line marks.

Subpart 78.55—Carrying of Excess Steam

78.55–1 Master and chief engineer responsible.

Subpart 78.57—Routing Instructions

78.57–1 All personnel must comply.

Subpart 78.60—Compliance With Provisions of Certificate of Inspection

78.60–1 Master or person in charge responsible.

Subpart 78.65—Exhibition of Merchant Mariner Credential

78.65–1 Licensed officers.

Subpart 78.70—De-Energizing of Cargo Hold Lighting Circuits When Grain or Other Combustible Bulk Cargo Is Carried

78.70–1 Master's responsibility.
78.70–5 Warning notice posted.

Subpart 78.83—Operation of Vehicles in Enclosed Locations

78.83–1 Special operating conditions.

Subpart 78.90—Pilot Boarding Operations

78.90–1 Pilot boarding operation.

Subpart 78.95—Person in Charge of Transfer of Liquid Cargo in Bulk

78.95–1 General.

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.

SOURCE: CGFR 65–50, 30 FR 16955, Dec. 30, 1965, unless otherwise noted.

Subpart 78.01—Application

§ 78.01–1 General; preemptive effect.

(a) The provisions of this part shall apply to all vessels except as specifically noted.

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

[CGFR 65–50, 30 FR 16955, Dec. 30, 1965, as amended by USCG–2006–24797, 77 FR 33877, June 7, 2012]

§ 78.01–2 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in paragraph (b) of this section, the Coast Guard must publish notice of change in the FEDERAL REGISTER; and the material must be available to the public. All approved material is available for inspection or at the National Archives and Records Administration (NARA), and at Coast Guard Headquarters. Contact Commandant (CG–ENG–4), Attn: Lifesaving and Fire Safety Division, U.S. Coast Guard Stop 7509, 2703 Martin Luther King Jr. Avenue SE., Washington, DC 20593–7509. The material is also available from the sources indicated in paragraph (b) of this section. For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.*

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

American Society for Testing and Materials (ASTM)

100 Barr Harbor Drive, West Conshohocken, PA 19428–2959.

ASTM D 93–97, Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester—78.17–75

International Maritime Organization (IMO)

Publications Section, 4 Albert Embankment, London, SE1 7SR United Kingdom. Resolution A.654(16), Graphical Symbols for Fire Control Plans—78.45–1

[CGD 95–028, 62 FR 51204, Sept. 30, 1997, as amended by USCG–1998–4442, 63 FR 52191, Sept. 30, 1998; USCG–1999–5151, 64 FR 67181, Dec. 1, 1999; 69 FR 18803, Apr. 9, 2004; USCG–2009–0702, 74 FR 49231, Sept. 25, 2009; USCG–2012–0832, 77 FR 59779, Oct. 1, 2012; USCG–2013–0671, 78 FR 60150, Sept. 30, 2013]

Subpart 78.05—Notice to Mariners and Aids to Navigation

§ 78.05–1 Duty of officers.

(a) Licensed deck officers are required to acquaint themselves with the latest information published by the Coast Guard and the National Geospatial-Intelligence Agency regarding aids to navigation. Neglect to do so is evidence of neglect of duty. It is desirable that all vessels have available in the pilothouse for convenient reference at all times a file of the applicable Notice to Mariners.

(b) Local Notices to Mariners, published by each U.S. Coast Guard District, contain announcements and information on changes in aids to navigation and other marine information affecting the safety of navigation on oceans and coastwise and the Great

Lakes. These notices may be obtained free of charge from the U.S. Coast Guard Navigation Center Web site found at *http://www.navcen.uscg.gov/?pageName = lnmMain*.

(c) Weekly Notices to Mariners (Worldwide coverage) are prepared jointly by the National Geospatial-Intelligence Agency, National Ocean Service, and the U.S. Coast Guard. They include changes in aids to navigation and other important navigation safety information in assembled form for U.S. waters. Foreign marine information is also included in these notices. These notices are available without charge from the National Geospatial-Intelligence Agency Web site found at *http://msi.nga.mil/NGAPortal/MSI.portal*.

[USCG–2014–0688, 79 FR 58282, Sept. 29, 2014]

§ 78.05–5 Charts and nautical publications.

As appropriate for the intended voyage, all vessels except barges, ferryboats and vessels operating exclusively on rivers, must carry adequate and up-to-date—

(a) Charts;

(b) Sailing directions;

(c) Coast pilots;

(d) Light lists;

(e) Notices to mariners;

(f) Tide tables;

(g) Current tables; and

(h) All other nautical publications necessary.[1]

[CGD 75–074, 42 FR 5963, Jan. 31, 1977]

Subpart 78.07—Notice and Reporting of Casualty and Voyage Records

§ 78.07–1 Notice and reporting of casualty and voyage records.

The requirements for providing notice and reporting of marine casualties and for retaining voyage records are contained in part 4 of this chapter.

[CGD 84–099, 52 FR 47535, Dec. 14, 1987]

[1] For United States vessels in or on the navigable waters of the United States, see 33 CFR 164.33.

Subpart 78.10—Persons Allowed in Pilothouse and on Navigation Bridge

§ 78.10–1 Persons excluded.

Masters and pilots shall exclude from the pilothouse and navigation bridge while underway, all persons not connected with the navigation of the vessel. However, licensed officers of vessels, persons regularly engaged in training, regulating, evaluating or learning the profession of pilot, officials of the United States Coast Guard, United States Navy, National Geospatial-Intelligence Agency, National Ocean Service, United States Army Corps of Engineers, Maritime Administration, and National Transportation Safety Board may be allowed in the pilothouse or upon the navigation bridge upon the responsibility of the master or pilot.

[CGD 91–023, 59 FR 16779, Apr. 8, 1994, as amended by USCG–2001–10224, 66 FR 48620, Sept. 21, 2001; USCG–2014–0688, 79 FR 58282, Sept. 29, 2014]

Subpart 78.12—Stability Information

§ 78.12–1 Posting of stability letter.

If a stability letter is issued under § 170.120 of this chapter, it must be posted under glass or other suitable transparent material in the pilothouse of the vessel.

[CGD 79–023, 48 FR 51007, Nov. 4, 1983]

Subpart 78.13—Station Bills

§ 78.13–1 Muster lists, emergency signals, and manning.

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

[CGD 84–069, 61 FR 25288, May 20, 1996]

Subpart 78.15—Doors Closed at Sea

§ 78.15–1 Subdivision bulkheads.

(a) All watertight doors in subdivision bulkheads shall be kept closed

during navigation except when necessarily opened for working of the vessel, and in such cases they shall always be ready to be immediately closed.

(b) [Reserved]

Subpart 78.16—Port Lights

§ 78.16–1 General.

If port lights are fitted in spaces used alternatively for the carriage of cargo or passengers as permitted by § 171.116(d) of this chapter, dead covers must be fitted on the port lights when cargo is carried.

[CGD 79–023, 48 FR 51007, Nov. 4, 1983]

Subpart 78.17—Tests, Drills, and Inspections

§ 78.17–1 Application.

(a) Except as specifically noted, the provisions of this subpart shall apply to all vessels.

(b) [Reserved]

§ 78.17–3 Watertight doors.

(a) It shall be the duty of the master to see that all watertight doors in subdivision bulkheads that may be opened at sea, and all mechanisms, remote controls, and indicators connected therewith, shall be periodically inspected at least once in each week that the vessel is navigated to be assured that they are in proper operating condition. On vessels in which the voyage exceeds one week in duration, these doors shall be operated before the vessel leaves port. All such doors shall be operated daily.

(b) The date of the test and the condition of the equipment shall be noted in the official logbook.

§ 78.17–5 Valves and closing appliances.

(a) It shall be the duty of the master to see that all valves, including cross connecting valves where fitted, and other appliances such as port lights, closing mechanism of scuppers, ash chutes, and rubbish chutes, the closing of which is necessary to make a compartment watertight, are operated at least once in every week that the vessel is navigated to be assured that they are in proper operating condition. Any remote controls or indicating mechanisms shall be inspected at this time to test their efficiency. Where such valves are accessible, they shall be inspected at this time, otherwise, they shall be inspected at the first opportunity when they are accessible. On vessels in which the voyage exceeds one week in duration, these appliances shall be operated before the vessel leaves port.

(b) The date of the test and the condition of the equipment shall be noted in the official logbook.

§ 78.17–10 Loudspeaker system.

(a) Where fitted, the complete loudspeaker system shall be tested at least once every week. This test shall be made by an officer of the vessel.

(b) The date of the test and the condition of the equipment shall be noted in the official logbook.

CROSS REFERENCE: See subchapter J (Electrical Engineering) of this chapter for details.

[CGFR 65–50, 30 FR 16955, Dec. 30, 1965, as amended by CGD 74–125A, 47 FR 15231, Apr. 8, 1982]

§ 78.17–15 Steering gear, whistle, and means of communication.

(a) On all vessels making a voyage of more than 48 hours' duration, the entire steering gear, the whistle, and the means of communication between the bridge or pilothouse and the engine room shall be examined and tested by an officer of the vessel within a period of not more than 12 hours prior to departure. On all other vessels similar examinations and tests shall be made at least once every week.

(b) The date of the test and the condition of the equipment shall be noted in the official logbook.

§ 78.17–20 Drafts and load line markings.

(a) The master of every vessel on an ocean, coastwise, or Great Lakes voyage shall enter the drafts of the vessel, forward and aft, in the official logbook when leaving port.

(b) On vessels subject to the requirements of subchapter E (Load Lines) of this chapter, at the time of departure from port on an ocean, coastwise, or Great Lakes voyage, the master shall

insert in the official logbook a statement of the position of the subdivision load line mark, port and starboard, in relation to the surface of the water in which the vessel is then floating.

(1) When the draft of the vessel is limited by a seasonal load line located below the subdivision load line, the position of the applicable seasonal load line shall be entered in relation to the surface of the water in which the vessel is floating.

(2) When an allowance for draft is made for density of the water in which the vessel is floating, this density is to be noted in the official logbook.

§ 78.17–22 Verification of vessel compliance with applicable stability requirements.

(a) After loading and prior to departure and at all other times necessary to assure the safety of the vessel, the master shall determine that the vessel complies with all applicable stability requirements in the vessel's trim and stability book, stability letter, Certificate of Inspection, and Load Line Certificate, as the case may be, and then enter an attestation statement of the verification in the log book. The vessel may not depart until it is in compliance with these requirements.

(b) When determining compliance with applicable stability requirements the vessel's draft, trim, and stability must be determined as necessary and any stability calculations made in support of the determination must be retained on board the vessel for the duration of the voyage.

[CGD 89–037, 57 FR 41822, Sept. 11, 1992]

§ 78.17–25 Sanitation.

(a) It shall be the duty of the master and chief engineer to see that the vessel and, in particular, the passenger and crew quarters are in a clean and sanitary condition. The chief engineer shall be responsible only for the sanitary condition of the engineering department.

(b) [Reserved]

§ 78.17–30 Examination of boilers and machinery.

It shall be the duty of the chief engineer when assuming charge of the boilers and machinery of a vessel to examine them thoroughly. If any parts thereof are in bad condition, the fact shall immediately be reported to the master, owner or agent, and the Officer in Charge, Marine Inspection.

[CGD 95–028, 62 FR 51205, Sept. 30, 1997]

§ 78.17–33 Loading doors.

(a) The master of a vessel fitted with loading doors shall assure that all loading doors are closed watertight and secured during the entire voyage except that—

(1) If a door cannot be opened or closed while the vessel is at a dock, it may be open while the vessel approaches and draws away from the dock, but only as far as necessary to enable the door to be immediately operated.

(2) If needed to operate the vessel, or embark and disembark passengers when the vessel is at anchor in protected waters, loading doors may be open provided that the master determines that the safety of the vessel is not impaired.

(b) For the purposes of this section, ''loading doors'' include all weathertight ramps, bow visors, and openings used to load personnel, equipment, and stores, located in the collision bulkhead, the side shell, or the boundaries of enclosed superstructures that are continuous with the shell of the vessel.

(c) The master shall enter into the log book the time and door location of every closing of the loading doors.

(d) The master shall enter into the log book any opening of the doors in accordance with paragraph (a)(2) of this section setting forth the time of the opening of the doors and the circumstances warranting this action.

[CGD 89–037, 57 FR 41822, Sept. 11, 1992]

§ 78.17–35 Hatches and other openings.

(a) It shall be the responsibility of the master to assure himself before leaving protected waters that all exposed cargo hatches of his vessel are closed and made properly tight.

(b) The following doors, portable plates, ports, and other openings shall be kept closed while the vessel is being navigated, and shall be closed before the vessel commences a voyage:

(1) Watertight doors between cargo spaces prescribed in § 170.275 of this chapter.

(2) Portable plates in watertight bulkheads prescribed in § 171.111(b) of this chapter.

(3) Gangway, cargo, and coaling ports fitted below the margin line that is determined in accordance with § 171.015 of this chapter.

(4) On ocean, coastwise, or Great Lakes vessels of 150 gross tons and over, all opening type port lights in a 'tween deck, if the sill of any port light in that 'tween deck, is below a line drawn parallel to the bulkhead deck at side and having its lowest point 4½ feet plus 2½ percent of the breadth of the vessel above the water when the vessel departs from port. The Commandant may indicate the limiting mean draft which would allow such port lights to be opened at sea.

(5) Port lights that are not accessible during navigation. Dead covers on such port lights shall also be secured.

(6) Port lights in spaces appropriated alternately to the carriage of cargo and passengers, when cargo is carried. Dead covers on such port lights shall also be secured.

(c) The time of opening and closing of hatches and other openings noted in this section shall be entered in the official logbook. In the event that the master at his discretion does not secure the hatches, a notation of this fact shall be made in the official logbook. If it becomes essential for the safety of the vessel to open any of the fittings noted in this section while at sea, the circumstances and the time of opening and closing shall be entered in the official logbook.

(d) The time of opening, closing, and securing, at sea, of watertight doors fitted between bunkers for the purpose of trimming coal, shall be entered in the official logbook.

[CGFR 65–50, 30 FR 16955, Dec. 30, 1965, as amended by CGD 79–023, 48 FR 51007, Nov. 4, 1983]

§ 78.17–45 Emergency lighting and power systems.

(a) It shall be the duty of the master to see that the emergency lighting and power systems are operated and inspected at least once in each week that the vessel is navigated to be assured that the system is in proper operating condition.

(b) Internal combustion engine driven emergency generators shall be operated under load for at least 2 hours, at least once in each month that the vessel is navigated.

(c) Storage batteries for emergency lighting and power systems shall be tested at least once each 6-month period that the vessel is navigated to demonstrate the ability of the storage battery to supply the emergency loads for the period of time specified in table 112.05–5(a) of this chapter.

(d) The date of the tests and the condition and performance of the apparatus shall be noted in the official logbook.

[CGFR 65–50, 30 FR 16959, Dec. 30, 1965, as amended by CGFR 70–143, 35 FR 19906, Dec. 30, 1970]

§ 78.17–50 Emergency training, musters, and drills.

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

[CGD 84–069, 61 FR 25288, May 20, 1996]

§ 78.17–65 Smoke detecting system.

(a) It shall be the duty of the master to see that the smoke inlets in cargo holds are examined at least once in each 3 months by the ship's personnel to determine if the inlets are obstructed by corrosion, paint, dust, or other extraneous matter. Smoke tests shall be made in all holds and the system found or made operable. The date of the test and condition of the system shall be entered in the log.

(b) [Reserved]

§ 78.17–75 Requirements for fuel oil.

(a) It shall be the duty of the chief engineer to cause an entry in the log be made of each supply of fuel oil received on board, stating the quantity received, the name of the vendor, the name of the oil producer, and the flashpoint (Pensky-Martens Closed Cup Method, ASTM D 93 (incorporated by reference, see § 78.01–2)) for which it is certified by the producer.

(b) It shall be the further duty of the chief engineer to cause to be drawn and sealed and suitably labeled at the time the supply is received on board, a half-pint sample of each lot of fuel oil. These samples shall be preserved until the particular supply of oil is exhausted.

[CGFR 65–50, 30 FR 16955, Dec. 30, 1965, as amended by CGFR 68–82, 33 FR 18899, Dec. 18, 1968; USCG–2000–7790, 65 FR 58461, Sept. 29, 2000]

§ 78.17–80 Firefighting equipment, general.

(a) It shall be the duty of the owner, master, or person in charge to see that the vessel's firefighting equipment is at all times ready for use and that all such equipment required by the regulations in this subchapter is provided, maintained, and replaced as indicated.

(b) It shall be the duty of the owner, master, or person in charge to require and have performed at least once in every twelve months the tests and inspections of all hand portable fire extinguishers, semiportable fire extinguishing systems, and fixed fire extinguishing systems on board, as described in tables 71.25–20(a) (1) and 71.25–20(a) (2) in § 71.25–20 of this subchapter. The owner, master, or person in charge shall keep records of such tests and inspections showing the dates when performed, the number and/or other identification of each unit tested and inspected, and the name(s) of the person(s) and/or company conducting the tests and inspections. Such records shall be made available to the inspector upon request and shall be kept for the period of validity of the vessel's current certificate of inspection. Where practicable these records should be kept in or with the vessel's log book. The conduct of these tests and inspections does not relieve the owner, master, or person in charge of his responsibility to maintain this firefighting equipment in proper condition at all times.

Subpart 78.19—Auto Pilot

§ 78.19–1 Use of auto pilot.

Except as provided in 33 CFR 164.15, when the automatic pilot is used in—

(a) Areas of high traffic density;

(b) Conditions of restricted visibility; and

(c) All other hazardous navigational situations, the master shall ensure that—

(1) It is possible to immediately establish manual control of the ship's steering;

(2) A competent person is ready at all times to take over steering control; and

(3) The changeover from automatic to manual steering and vice versa is made by, or under, the supervision of the officer of the watch.

[CGD 75–074, 42 FR 5963, Jan. 31, 1977]

Subpart 78.21—Maneuvering Characteristics

§ 78.21–1 Data required.

For each ocean and coastwise vessel of 1,600 gross tons and over, the following apply:

(a) The following maneuvering information must be prominently displayed in the pilothouse on a fact sheet:

(1) For full and half speed, a turning circle diagram to port and starboard that shows the time and the distance of advance and transfer required to alter the course 90 degrees with maximum rudder angle and constant power settings.

(2) The time and distance to stop the vessel from full and half speed while maintaining approximately the initial heading with minimum application of rudder.

(3) For each vessel with a fixed propeller, a table of shaft revolutions per minute for a representative range of speeds.

(4) For each vessel with a controllable pitch propeller a table of control settings for a representative range of speeds.

(5) For each vessel that is fitted with an auxiliary device to assist in maneuvering, such as a bow thruster, a table of vessel speeds at which the auxiliary device is effective in maneuvering the vessel.

(b) The maneuvering information must be provided in the normal load and normal light condition with normal trim for a particular condition of loading assuming the following—

(1) Calm weather—wind 10 knots or less, calm sea;

(2) No current;

(3) Deep water conditions—water depth twice the vessel's draft or greater; and

(4) Clean hull.

(c) At the bottom of the fact sheet, the following statement must appear:

WARNING

The response of the (name of the vessel) may be different from those listed above if any of the following conditions, upon which the maneuvering information is based, are varied:

(1) Calm weather—wind 10 knots or less, calm sea;

(2) No current;

(3) Water depth twice the vessel's draft or greater;

(4) Clean hull; and

(5) Intermediate drafts or unusual trim.

(d) The information on the fact sheet must be:

(1) Verified six months after the vessel is placed in service; or

(2) Modified six months after the vessel is placed into service and verified within three months thereafter.

(e) The information that appears on the fact sheet may be obtained from:

(1) Trial trip observations;

(2) Model tests;

(3) Analytical calculations;

(4) Simulations;

(5) Information established from another vessel of similar hull form, power, rudder and propeller; or

(6) Any combination of the above.

The accuracy of the information in the fact sheet required is that attainable by ordinary shipboard navigation equipment.

(f) The requirements for information for fact sheets for specialized craft such as semi-submersibles, hydrofoils, hovercraft and other vessels of unusual design will be specified on a case by case basis.

[CGD 73–78, 40 FR 2689, Jan. 15, 1975, as amended by CGD 79–165a, 45 FR 64189, Sept. 29, 1980]

Subpart 78.23—Whistling

§ 78.23–1 Unnecessary whistling prohibited.

(a) The unnecessary sounding of the vessel's whistle is prohibited within any harbor limits of the United States.

(b) [Reserved]

Subpart 78.27—Searchlights

§ 78.27–1 Improper use prohibited.

(a) No person shall flash or cause to be flashed the rays of a search light or other blinding light onto the bridge or into the pilothouse of any vessel under way.

(b) [Reserved]

Subpart 78.30—Lookouts, Pilothouse Watch, Patrolmen, and Watchmen

§ 78.30–5 Pilothouse watch.

(a) In addition to the licensed deck officer or pilot, there shall be at least one member of the crew also on watch in or near the pilothouse at all times when the vessel is being navigated.

(b) [Reserved]

§ 78.30–10 Supervised patrol.

(a) The provisions of this section shall apply to all vessels on an international voyage, and to all other vessels having berthed or stateroom accommodations for passengers. This section shall be applicable at all times when passengers are on board.

(b) Between the hours of 10 p.m. and 6 a.m., a supervised patrol shall be maintained so as to completely cover all parts of the vessel accessible to passengers or crew, excepting occupied sleeping accommodations and machinery spaces and similar spaces where a regular watch is maintained.

(c) Clocks, keys, and recording apparatus shall be of an approved type. The station boxes shall have seals placed over the securing screws in order to leave evidence of removal or tampering.

(d) Clocks or key stations shall be so arranged throughout the vessel so as to assure complete coverage of all accessible spaces required by paragraph (b)

of this section. The number and location of recording stations, the order in which they are visited, and the number undertaken by one patrolman shall be specifically approved. The stations shall be numbered as required by § 78.47–23. Sufficient watchmen shall be available so that each space will be covered at least once in every hour except as follows:

(1) On existing vessels not constructed in general agreement with §§ 72.05–5 through 72.05–60, of this subchapter, the supervised patrol shall cover all spaces required by paragraph (b) of this section at least once in every 20 minutes.

(2) Public spaces constructed in general agreement with §§ 72.05–5 through 72.05–60, of this subchapter, shall have either an approved fire detecting system installed in such spaces or the supervised patrol shall cover these spaces at least once in every 20 minutes.

(e) The patrolman shall report to the bridge at least once an hour on vessels where the supervised patrol system is not equipped with a recording apparatus in the control station. In vessels requiring more than one patrol route, one patrolman may contact others and make a joint report to the bridge. Failure of a patrolman to follow a prescribed route, or to record each station within the specified time, shall be entered on the record along with the reason for the irregularity.

(f) The patrolman while on duty shall wear a distinctive uniform or badge, and shall have in his possession at all times an efficient flashlight.

(g) A patrolman on duty shall have no other tasks assigned to him.

§ 78.30–15 Watchmen.

(a) The provisions of this section shall apply to all vessels not required to have a supervised patrol under the provisions of § 78.30–10. This section shall be applicable at all times when passengers are on board.

(b) During the nighttime, a suitable number of watchmen shall be stationed in the passenger accommodation areas on each deck.

(c) Watchmen shall be under the direct charge of the master or officer in command of the vessel, and shall report to such officer at the pilothouse at fixed intervals not exceeding one hour. Watchmen shall not be required to perform any other duties while on watch.

(d) The uniform of the night watchman shall be conspicuously different from other persons so as to be readily distinguished. A rating badge marked ''Watchman'' shall be worn on the left sleeve and the front of the cap shall also be marked ''Watchman''.

(e) The watchman shall have in his possession at all time while on duty an efficient flashlight.

§ 78.30–20 Master's and officer's responsibility.

(a) Nothing in this part shall exonerate any master or officer in command from the consequences of any neglect to keep a proper lookout or to maintain a proper fire watch or from any neglect of any precaution which may be required by the ordinary practice of seamen or by the special circumstances of the case. When circumstances require it, additional watches shall be maintained to guard against fire or other danger and to give an alarm in case of accident or disaster.

(b) [Reserved]

Subpart 78.33—Reports of Accidents, Repairs, and Unsafe Equipment

§ 78.33–1 Repairs of boiler and pressure vessels.

(a) Before making any repairs to boilers or unfired pressure vessels, the chief engineer shall submit a report covering the nature of the repairs to the Officer in Charge, Marine Inspection, at or nearest the port where the repairs are to be made.

(b) [Reserved]

§ 78.33–5 Accidents to machinery.

(a) In the event of an accident to a boiler, unfired pressure vessel, or machinery tending to render the further use of the item unsafe until repairs are made, or if by ordinary wear such items become unsafe, a report shall be made by the chief engineer immediately to the Officer in Charge, Marine Inspection, or if at sea, immediately upon arrival at port.

(b) [Reserved]

§ 78.33–10 Notice required before repairs.

(a) No repairs or alterations, except in an emergency, shall be made to any lifesaving or fire detecting or extinguishing equipment without advance notice to the Officer in Charge, Marine Inspection. When emergency repairs or alterations have been made, notice shall be given to the Officer in Charge, Marine Inspection, as soon as practicable.

(b) [Reserved]

Subpart 78.35—Communication Between Deckhouses

§ 78.35–1 When required.

On all vessels navigating in other than protected waters, where the distance between deckhouses is more than 46 meters (150 feet) a fixed means of facilitating communication between both ends of the vessel, such as a raised fore and aft bridge or side tunnels, must be provided. Previously approved arrangements may be retained so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

[CGD 95–027, 61 FR 26004, May 23, 1996]

Subpart 78.36—Work Vests

§ 78.36–1 Application.

(a) Provisions of this subpart shall apply to all vessels inspected and certificated in accordance with this subchapter.

(b) [Reserved]

§ 78.36–5 Approved types of work vests.

(a) Each buoyant work vest carried under the permissive authority of this section must be approved under—

(1) Subpart 160.053 of this chapter; or

(2) Subpart 160.077 of this chapter as a commercial hybrid PFD.

(b) [Reserved]

[CGD 78–174A, 51 FR 4350, Feb. 4, 1986]

§ 78.36–10 Use.

(a) Approved buoyant work vests are considered to be items of safety apparel and may be carried aboard vessels to be worn by crew members when working near or over the water under favorable working conditions. They shall be used under the supervision and control of designated ship's officers. When carried, such vests shall not be accepted in lieu of any portion of the required number of approved life preservers and shall not be substituted for the approved life preservers required to be worn during drills and emergencies.

(b) [Reserved]

§ 78.36–15 Shipboard stowage.

(a) The approved buoyant work vests shall be stowed separately from the regular stowage of approved life preservers.

(b) The locations for the stowage of work vests shall be such as not to be easily confused with that for approved life preservers.

§ 78.36–20 Shipboard inspections.

(a) Each work vest shall be subject to examination by a marine inspector to determine its serviceability. If found to be satisfactory, it may be continued in service, but shall not be stamped by a marine inspector with a Coast Guard stamp. If a work vest is found not to be in a serviceable condition, then such work vest shall be removed from the vessel. If a work vest is beyond repair, it shall be destroyed or mutilated in the presence of a marine inspector so as to prevent its continued use as a work vest.

(b) [Reserved]

[CGFR 65–50, 30 FR 16955, Dec. 30, 1965, as amended by USCG–2014–0688, 79 FR 58282, Sept. 29, 2014]

§ 78.36–25 Additional requirements for hybrid work vests.

(a) In addition to the other requirements in this subpart, commercial hybrid PFD's must be—

(1) Used, stowed, and maintained in accordance with the procedures set out in the manual required for these devices by § 160.077–29 of this chapter and any limitation(s) marked on them; and

(2) Of the same or similar design and have the same method of operation as each other hybrid PFD carried on board.

(b) [Reserved]

[CGD 78–174A, 51 FR 4350, Feb. 4, 1986]

Subpart 78.37—Logbook Entries

§ 78.37–1 Application.

(a) Except as specifically noted, the provisions of this subpart shall apply to all vessels.

(b) [Reserved]

§ 78.37–3 Logbooks and records.

(a) The master or person in charge of a vessel that is required by 46 U.S.C. 11301 to have an official logbook shall maintain the logbook on form CG–706. When the voyage is completed, the master or person in charge shall file the logbook with the Officer in Charge, Marine Inspection.

(b) The master or person in charge of a vessel that is not required by 46 U.S.C. 11301 to have an official logbook, shall maintain, on board, an unofficial logbook or record in any form desired for the purposes of making entries therein as required by law or regulations in this subchapter. Such logs or records are not filed with the Officer in Charge, Marine Inspection, but must be kept available for review by a marine inspector for a period of 1 year after the date to which the records refer. Separate records of tests and inspections of fire fighting equipment must be maintained with the vessel's logs for the period of validity of the vessel's certificate of inspection.

[CGD 95–027, 61 FR 26004, May 23, 1996]

§ 78.37–5 Actions required to be logged.

The actions and observations noted in this section shall be entered in the official log book. This section contains no requirements which are not made in other portions of this subchapter, the items being merely grouped together for convenience.

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

(b) Watertight door operation: Daily and Weekly. See § 78.17–3.

(c) Valve and closing appliance operation: Weekly. See § 78.17–5.

(d) Loudspeaker system: Weekly. See § 78.17–10.

(e) Steering gear, whistle, and means of communication: Prior to departure. See § 78.17–15.

(f) Drafts and load line markings: Prior to leaving port, ocean, coastwise, and Great Lakes services only. See § 78.17–20.

(g) Verification of vessel compliance with applicable stability requirements. After loading and prior to departure and at all other time necessary to assure the safety of the vessel. See § 78.17–22.

(h) Loading doors. Where applicable, every closing and any opening when not docked. See § 78.17–33.

(i) Hatches and other openings: All openings and closings, or leaving port without closing, except vessels on protected waters. See § 78.17–35.

(j) Emergency lighting and power systems: Weekly and semiannually. See § 78.17–45.

(k) Smoke Detecting System: Once every three months. See § 78.17–65.

(l) Fuel oil data: Upon receipt of fuel oil on board. See § 78.17–75.

(m) Cargo gear inspections: At least once a month. See § 71.47–70 of this subchapter.

[CGFR 65–50, 30 FR 16955, Dec. 30, 1965, as amended by CGD 89–037, 57 FR 41822, Sept. 11, 1992; CGD 84–069, 61 FR 25288, May 20, 1996; USCG–2014–0688, 79 FR 58282, Sept. 29, 2014]

§ 78.37–10 Official log entries.

(a) In addition to other items required to be entered in the official logbook on every vessel where an official logbook is required, all items relative to the crew and passengers, including the count of passengers carried, and to casualties shall also be entered.

(b) Except as noted in paragraph (b)(1) of this section, on any vessel where an official logbook is not required, the master shall keep a record of the correct count of all the passengers received and delivered from day to day. This record shall be open to inspection by the Coast Guard at all times. The aggregate number of the passengers carried shall be furnished to the Coast Guard whenever requested. The information shall be available for a period of one year after the date to which the records refer.

(1) The provisions of the paragraph shall not apply to ferry vessels.

(2) [Reserved]

[CGFR 65–50, 30 FR 16959, Dec. 30, 1965, as amended by CGD 95–028, 62 FR 51205, Sept. 30, 1997]

Subpart 78.40—Vehicular Ferries

§ 78.40–1 Stowage of vehicles.

(a) Automobiles or other vehicles shall be stowed in such a manner as to permit both passengers and operators to get out and away from them freely in the event of fire or other disaster. Where there is insufficient clearance to provide for easy egress at all times, both passengers and operators shall be directed to leave their vehicles and to occupy other spaces reserved for them during the crossing. The decks, where necessary, shall be definitely marked with painted lines to indicate the vehicle runways and the aisle spaces.

(b) [Reserved]

§ 78.40–5 Securing of vehicles.

(a) The master shall take all necessary precautions to see that automobiles or other vehicles have their motors turned off when the ferry is under way, and the motors shall not be started until the ferry is secured to the landing. In addition, the vehicles at each end shall have their wheels securely blocked, while the vessel is being navigated.

(b) [Reserved]

§ 78.40–10 No smoking permitted.

(a) The master shall have appropriate ''No Smoking'' signs posted and shall take all necessary precautions to prevent smoking or carrying of lighted or smoldering cigars, cigarettes, etc., in the deck area assigned to automobiles or other vehicles.

(b) [Reserved]

Subpart 78.45—Display of Plans

§ 78.45–1 When required.

(a) Vessels of 1,000 gross tons and over, and vessels of any tonnage on an international voyage shall have permanently exhibited for the guidance of the officer in charge of the vessel the following plans:

(1) General arrangement plans showing for each deck the fire control stations, the various sections enclosed by fire-resisting bulkheads, together with particulars of the fire alarms, detecting systems, the sprinkler installation (if any), the fire extinguishing appliances, means of access to different compartments, decks, etc., and the ventilating systems including particulars of the master fan controls, the positions of dampers, the location of the remote means of stopping fans, and identification numbers of the ventilating fans serving each section. If cargo compartments are ''specially suitable for vehicles,'' they shall be so indicated on the plan. Alternatively, at the discretion of the Commandant, the listed details may be set out in a different medium, such as a booklet or on computer software, provided that the details are available to each officer and a written copy is retained on board at all times and is accessible during emergencies.

(2) For vessels constructed on or after September 30, 1997, and for existing vessels which have their plans redrawn, the symbols used to identify the aforementioned details shall be in accordance with IMO Assembly resolution A.654(16). The identical symbols can be found in ASTM Adjunct F 1626.

(3) Plans showing clearly for each deck and hold the boundaries of the watertight compartments, the openings therein with the means of closure and position of any controls thereof, and the arrangements for the correction of any list due to flooding.

(4) The aforementioned information required for this section shall be kept up-to-date, any alteration being recorded in the applicable medium as soon as practicable.

[CGD 95–028, 62 FR 51205, Sept. 30, 1997]

Subpart 78.47—Markings for Fire and Emergency Equipment, Etc.

§ 78.47–1 Application.

(a) The provisions of this subpart with the exception of § 78.47–90, shall apply to all vessels contracted for on or after November 19, 1952. Vessels contracted for prior to November 19, 1952, shall meet the requirements of § 78.47–90.

(b) [Reserved]

§ 78.47–3 General.

(a) It is the intent of this subpart to provide such markings as are necessary for the guidance of the persons on board in case of emergency. In any specific case, and particularly on small vessels, where it can be shown to the satisfaction of the Officer in Charge, Marine Inspection, that the prescribed markings are unnecessary for the guidance of the persons on board in case of emergency, such markings may be modified or omitted.

(b) In addition to English, all stateroom notices, directional signs, etc., shall be printed in languages appropriate to the service of the vessel or other action be taken to achieve the same purpose.

(c) Where in this subpart red letters are specified, letters of a contrasting color on a red background will be accepted.

§ 78.47–5 General alarm contact makers.

Each general alarm contact maker must be marked in accordance with the requirements in subchapter J (Electrical Engineering Regulations) of this chapter.

[CGD 74–125A, 47 FR 15232, Apr. 4, 1982]

§ 78.47–7 General alarm bells.

(a) All general alarm bells shall be identified by red lettering at least ½ inch high: ''GENERAL ALARM—WHEN BELL RINGS GO TO YOUR STATION.''

(b) [Reserved]

§ 78.47–9 Carbon dioxide and clean agent alarms.

Each carbon dioxide or clean agent fire extinguishing alarm must be conspicuously marked: ''WHEN ALARM SOUNDS VACATE AT ONCE. CARBON DIOXIDE OR CLEAN AGENT BEING RELEASED.''.

[USCG–2006–24797, 77 FR 33877, June 7, 2012]

§ 78.47–10 Manual alarm boxes.

(a) In all new installations, manual alarm boxes shall be clearly and permanently marked ''IN CASE OF FIRE BREAK GLASS.'' Existing boxes not so marked with the same or equivalent wording, shall be identified either on the box or adjacent bulkhead in at least ½ inch letters ''IN CASE OF FIRE BREAK GLASS.'' All manual alarm boxes shall be numbered in red on the adjacent bulkhead with at least ½ inch figures. The number shall agree with the number of the zone.

(b) [Reserved]

§ 78.47–11 Carbon dioxide warning signs.

Each entrance to a space storing carbon dioxide cylinders, a space protected by carbon dioxide systems, or any space into which carbon dioxide might migrate must be conspicuously marked as follows:

(a) Spaces storing carbon dioxide—''CARBON DIOXIDE GAS CAN CAUSE INJURY OR DEATH. VENTILATE THE AREA BEFORE ENTERING. A HIGH CONCENTRATION CAN OCCUR IN THIS AREA AND CAN CAUSE SUFFOCATION.''.

(b) Spaces protected by carbon dioxide—''CARBON DIOXIDE GAS CAN CAUSE INJURY OR DEATH. WHEN ALARM OPERATES OR WINTERGREEN SCENT IS DETECTED, DO NOT ENTER UNTIL VENTILATED. LOCK OUT SYSTEM WHEN SERVICING.'' The reference to wintergreen scent may be omitted for carbon dioxide systems not required to have odorizing units and not equipped with such units.

(c) Spaces into which carbon dioxide might migrate—''CARBON DIOXIDE GAS CAN CAUSE INJURY OR DEATH. DISCHARGE INTO NEARBY SPACE CAN COLLECT HERE. WHEN ALARM OPERATES OR WINTERGREEN SCENT IS DETECTED VACATE IMMEDIATELY.'' The reference to wintergreen scent may be omitted for carbon dioxide systems not required to have odorizing units and not equipped with such units.

[USCG–2006–24797, 77 FR 33877, June 7, 2012]

§ 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]

[USCG–2012–0196, 81 FR 48261, July 22, 2016]

§ 78.47–15 Fire extinguishing system branch lines.

(a) The branch line valves of all fire extinguishing systems shall be plainly and permanently marked indicating the spaces served.

(b) [Reserved]

§ 78.47–17 Fire extinguishing system controls.

Each control cabinet or space containing valves or manifolds for a fire extinguishing system must be distinctly marked in conspicuous red letters at least 2 inches high: ''[CARBON DIOXIDE/STEAM/FOAM/WATER SPRAY/MANUAL SPRINKLING/AUTOMATIC SPRINKLING/CLEAN AGENT—as appropriate] FIRE SYSTEM.''.

[USCG–2006–24797, 77 FR 33877, June 7, 2012]

§ 78.47–20 Fire hose stations.

(a) Each fire hydrant shall be identified in red letters and figures at least 2 inches high ''FIRE STATION NO 1,'' ''2,'' ''3,'' etc. Where the hose is not stowed in the open or behind glass so as to be readily seen, this identification shall be so placed as to be readily seen from a distance.

(b) [Reserved]

§ 78.47–23 Supervised patrol stations.

(a) Each supervised patrol clock or key station shall be numbered.

(b) [Reserved]

§ 78.47–25 Emergency squad equipment.

(a) Lockers or spaces containing equipment for the use of the emergency squad shall be marked ''EMERGENCY SQUAD EQUIPMENT.''

(b) [Reserved]

§ 78.47–27 Self-contained breathing apparatus.

Lockers or spaces containing self-contained breathing apparatus shall be marked ''SELF-CONTAINED BREATHING APPARATUS.''

[CGD 95–028, 62 FR 51205, Sept. 30, 1997]

§ 78.47–30 Hand portable fire extinguishers.

(a) Each hand portable fire extinguisher shall be marked with a number and the location where stowed shall be marked with a corresponding number at least ½ inch high. Where only one type and size of hand portable fire extinguisher is carried, the numbering may be omitted.

(b) [Reserved]

§ 78.47–33 Emergency lights.

(a) All emergency lights shall be marked with a letter ''E'' at least ½ inch high.

(b) [Reserved]

§ 78.47–35 Fire doors.

(a) All doors in main vertical zone bulkheads or stairway enclosures, except from individual rooms such as staterooms, fan rooms, lockers, etc., shall be numbered conspicuously on an etched plate or equivalent in not less than ⅜ inch letters and figures ''F. S. D. 1,'' ''2,'' ''3,'' etc. If stenciled or similar notice is used, the letters and figures shall be at least 1 inch high. The number shall be conspicuous with the door in the open position.

(b) [Reserved]

§ 78.47–37 Watertight doors.

(a) All watertight doors in subdivision bulkheads shall be numbered conspicuously on both sides on an etched plate or equivalent in not less than ⅜ inch letters and figures ''W. T. D. 1,'' ''2,'' ''3,'' etc. If a stenciled or similar notice is used, the letters and figures shall be at least 1 inch high. If the construction is such that the number cannot be seen with the door in the open position, a similar number shall be placed on the frame or other location immediately adjacent to the door. All watertight door remote control stations shall be marked in the same manner, and in addition, the direction of operation of the lever or wheel to open and close the door shall be conspicuously marked.

(b) Class 1 doors fitted in accordance with the requirements in § 170.255 of this chapter must additionally be marked ''RECLOSE AFTER USE.''

[CGFR 65–50, 30 FR 16955, Dec. 30, 1965, as amended by CGD 79–023, 48 FR 51008, Nov. 4, 1983; USCG–2014–0688, 79 FR 58282, Sept. 29, 2014]

§ 78.47–38 Valves and closing appliances.

(a) All valves and closing appliances, or other mechanisms which may be required to be operated for damage control purposes in case of emergency shall be conspicuously marked with letters at least 1 inch high identifying the control and the direction of operation. In all cases indication shall be provided to show whether the control is open or closed.

(b) [Reserved]

§ 78.47–40 Exit signs.

(a) Illuminated exit signs are required and must be installed in accordance with subchapter J (Electrical Engineering Regulations) of this chapter.

(b) Small rooms or spaces having a secondary means of escape which is not obviously apparent shall have a suitable sign in red letters ''EMERGENCY EXIT'' directing attention to such escape.

CROSS REFERENCE: See subchapter J (Electrical Engineering) of this chapter for minimum size.

[CGFR 65–50, 30 FR 16955, Dec. 30, 1965, as amended by CGD 74–125A, 47 FR 15232, Apr. 8, 1982]

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

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

[CGD 84–069, 61 FR 25288, May 20, 1996]

§ 78.47–53 Automatic ventilation dampers.

(a) The manual operating positions for automatic fire dampers in ventilation ducts passing through main vertical zone bulkheads shall be identified by red day light-reflecting letters at least ½ inch high ''VENTILATION FIRE DAMPER.'' In addition, the open and closed positions shall be similarly marked.

(b) [Reserved]

[CGFR 65–50, 30 FR 16955, Dec. 30, 1965, as amended by CGD 67–87, 32 FR 19181, Dec. 20, 1967]

§ 78.47–55 Instructions for changing steering gear.

(a) Instructions in at least ½ inch letters and figures shall be posted in the steering engine room, relating in order, the different steps to be taken in changing to the emergency steering gear. Each clutch, gear, wheel, lever, valve or switch which is used during the changeover shall be numbered or lettered on a metal plate or painted so that the markings can be recognized at a reasonable distance. The instructions shall indicate each clutch or pin to be ''in'' or ''out'' and each valve or switch which is to be ''opened'' or ''closed'' in shifting to any means of steering for which the vessel is equipped. Instructions shall be included to line up all steering wheels and rudder amidship before changing gears.

(b) [Reserved]

§ 78.47–57 Rudder orders.

(a) At all steering stations, there shall be installed a suitable notice on the wheel or device of in such other position as to be directly in the helmsman's line of vision, to indicate the direction in which the wheel or device must be turned for ''right rudder'' and for ''left rudder.''

(b) [Reserved]

§ 78.47–70 Portable magazine chests.

(a) Portable magazine chest shall be marked in letters of at least 3 inches high ''PORTABLE MAGAZINE CHEST—FLAMMABLE—KEEP LIGHTS AND FIRE AWAY''.

(b) [Reserved]

§ 78.47–75 Ventilation alarm failure.

(a) The alarm required by § 72.15–15 (c)(4) of this subchapter, which indicates the loss of required ventilation in spaces specially suitable for vehicles, shall be marked with a conspicuous

sign in at least ¼-inch letters ''VENTILATION FAILURE IN VEHICULAR SPACE.''

(b) [Reserved]

[CGFR 66–33, 31 FR 15284, Dec. 6, 1966]

§ 78.47–90 Vessels contracted for prior to November 19, 1952.

(a) Vessels contracted for prior to November 19, 1952, shall meet the requirements of this paragraph.

(1) The requirements of §§ 78.47–5 through 78.47–75 shall be met with the exception that existing signs and markings containing the same general intent, but not necessarily identical wording or exact letter type, size, or color, may be retained so long as they are in good condition to the satisfaction of the Officer in Charge, Marine Inspection.

(2) [Reserved]

(b) [Reserved]

[CGFR 65–50, 30 FR 16955, Dec. 30, 1965, as amended by CGFR 66–33, 31 FR 15284, Dec. 6, 1966]

Subpart 78.50—Markings on Vessels

§ 78.50–1 Application.

(a) The provisions of this subpart shall apply to all vessels except as specifically noted in this subpart.

(b) [Reserved]

§ 78.50–5 Hull markings.

Vessels shall be marked as required by parts 67 and 69 of this chapter.

[CGD 72–104R, 37 FR 14233, July 18, 1972]

§ 78.50–10 Draft marks and draft indicating systems.

(a) All vessels must have draft marks plainly and legibly visible upon the stem and upon the sternpost or rudderpost or any place at the stern of the vessel as may be necessary for easy observance. The bottom of each mark must indicate the draft.

(b) The draft must be taken from the bottom of the keel to the surface of the water at the location of the marks.

(c) In cases where the keel does not extend forward or aft to the locations of the draft marks, due to raked stem or cut—away skeg, the datum line from which the draft shall be taken shall be obtained by projecting the line of the bottom of keel forward or aft, as the case may be, to the location of the draft marks.

(d) In cases where a vessel may have a skeg or other appendage extending locally below the line of the keel, the draft at the end of the vessel adjacent to such appendage shall be measured to a line tangent to the lowest part of such appendage and parallel to the line of the bottom of the keel.

(e) Draft marks must be separated so that the projections of the marks onto a vertical plane are of uniform height equal to the vertical spacing between consecutive marks.

(f) Draft marks must be painted in contrasting color to the hull.

(g) In cases where draft marks are obscured due to operational constraints or by protrusions, the vessel must be fitted with a reliable draft indicating system from which the bow and stern drafts can be determined.

[CGFR 65–50, 30 FR 16955, Dec. 30, 1965, as amended by CGD 72–104R, 37 FR 14233, July 18, 1972; CGD 89–037, 57 FR 41822, Sept. 11, 1992; USCG–2014–0688, 79 FR 58282, Sept. 29, 2014]

§ 78.50–15 Load line marks.

(a) Vessels assigned a load line shall have the deck line and the load line marks permanently scribed or embossed as required by subchapter E (Load Lines) of this chapter.

(b) [Reserved]

Subpart 78.55—Carrying of Excess Steam

§ 78.55–1 Master and chief engineer responsible.

It shall be the duty of the master and the engineer in charge of the boilers of any vessel to require that a steam pressure is not carried in excess of that allowed by the certificate of inspection, and to require that the safety valves, once set by the inspector, are in no way tampered with or made inoperative.

[CGD 95–028, 62 FR 51205, Sept. 30, 1997]

Subpart 78.57—Routing Instructions

§ 78.57–1 All personnel must comply.

All licensed masters, officers, and certificated seamen on United States vessels shall strictly comply with routing instructions issued by competent naval authority.

[CGD 95–027, 61 FR 26005, May 23, 1996]

Subpart 78.60—Compliance With Provisions of Certificate of Inspection

§ 78.60–1 Master or person in charge responsible.

(a) It shall be the duty of the master or other person in charge of the vessel to see that all of the provisions of the certificate of inspection are strictly adhered to. Nothing in this subpart shall be construed as limiting the master or other person in charge of the vessel, at his own responsibility, from diverting from the route prescribed in the certificate of inspection or taking such other steps as he deems necessary and prudent to assist vessels in distress or for other similar emergencies.

(b) [Reserved]

Subpart 78.65—Exhibition of Merchant Mariner Credential

§ 78.65–1 Officers.

All officers on a vessel must have their licenses or officer endorsements conspicuously displayed.

[CGFR 65–50, 30 FR 16955, Dec. 30, 1965, as amended by USCG–2006–24371, 74 FR 11265, Mar. 16, 2009]

Subpart 78.70—De-Energizing of Cargo Hold Lighting Circuits When Grain or Other Combustible Bulk Cargo is Carried

§ 78.70–1 Master's responsibility.

(a) Before loading bulk grain, or similar combustible bulk cargo, the master shall have the lighting circuits to cargo compartments in which the bulk cargo is to be loaded de-energized at the distribution panel or panel board. He shall thereafter have periodic inspections made of the panel or panel board as frequently as necessary to ascertain that the affected circuits remain de-energized while this bulk cargo remains within the vessel.

(b) [Reserved]

§ 78.70–5 Warning notice posted.

(a) As a precaution against any subsequent unintentional re-energizing of the circuits specified above, an appropriate notice shall be posted at the location where the control is effected warning against re-energizing these circuits. Such notice shall remain posted while this bulk cargo remains within the vessel.

(b) [Reserved]

Subpart 78.83—Operation of Vehicles in Enclosed Locations

§ 78.83–1 Special operating conditions.

(a) The operation of self-propelled vehicles in enclosed locations shall be permitted only when the other conditions in this section have been met.

(b) Spaces exposed to carbon monoxide or other hazardous vapors from exhausts of power-operated industrial trucks shall have adequate ventilation. The senior deck officer shall see that tests of the carbon monoxide content of the atmosphere are made as frequently as conditions require to insure that dangerous concentrations do not develop. Such tests shall be made in the area in which persons are working, by persons acquainted with the test equipment and procedure. The carbon monoxide concentration in the holds and intermediate decks where persons are working shall be maintained at not more than 50 parts per million (0.005%) as a time-weighted average, and persons shall be removed from the area if the concentration exceeds 75 parts per million (0.0075%). When necessary, portable blowers of adequate size and location shall be utilized.

[CGFR 66–33, 31 FR 15284, Dec. 6, 1966, as amended by CGFR 69–72, 34 FR 17484, Oct. 29, 1969; CGD 95–027, 61 FR 26005, May 23, 1996]

Subpart 78.90—Pilot Boarding Operations

§ 78.90–1 Pilot boarding operation.

(a) The master shall ensure that pilot boarding equipment is maintained as follows:

(1) The equipment must be kept clean and in good working order.

(2) Each damaged step or spreader step on a pilot ladder must be replaced in kind with an approved replacement step or spreader step, prior to further use of the ladder. The replacement step or spreader step must be secured by the method used in the original construction of the ladder, and in accordance with manufacturer instructions.

(b) The master shall ensure compliance with the following during pilot boarding operations:

(1) Only approved pilot boarding equipment may be used.

(2) The pilot boarding equipment must rest firmly against the hull of the vessel and be clear of overboard discharges.

(3) Two man ropes, a safety line and an approved lifebuoy with an approved water light must be at the point of access and be immediately available for use during boarding operations.

(4) Rigging of the equipment and embarkation/debarkation of a pilot must be supervised in person by a deck officer.

(5) Both the equipment over the side and the point of access must be adequately lit during night operations.

(6) If a pilot hoist is used, a pilot ladder must be kept on deck adjacent to the hoist and available for immediate use.

[CGD 79–032, 49 FR 25455, June 21, 1984]

Subpart 78.95—Person in Charge of Transfer of Liquid Cargo in Bulk

§ 78.95–1 General.

A qualified person in charge of a transfer of liquid cargo in bulk shall be designated in accordance with subpart C of 33 CFR part 155.

[CGD 79–116, 60 FR 17157, Apr. 4, 1995]

PART 80—DISCLOSURE OF SAFETY STANDARDS AND COUNTRY OF REGISTRY

Sec.

80.01 Purpose.
80.10 Applicability.
80.15 Ocean voyage.
80.20 Exception to requirements.
80.25 Notification of safety standards.
80.30 Promotional literature or advertising.
80.40 Civil penalty.

AUTHORITY: 46 U.S.C. 3306; Department of Homeland Security Delegation No. 0170.1.

SOURCE: CGD 72–187R, 38 FR 9081, Apr. 10, 1973, unless otherwise noted.

§ 80.01 Purpose.

The purpose of the regulations in this part is to implement 46 U.S.C. 3504.

[CGD 95–028, 62 FR 51205, Sept. 30, 1997]

§ 80.10 Applicability.

Except as exempted in § 80.20, this part applies to—

(a) Owners, operators, agents, or any persons selling passage on a foreign or domestic vessel of one hundred gross tons or over having berth or stateroom accommodations for fifty or more passengers and embarking passengers at a United States port for a coastwise or an international voyage; and (b) owners, operators, agents, and other persons involved in the publishing and distribution of promotional material in or over any medium of communication within the United States offering passage or soliciting passengers for an ocean voyage anywhere in the world, by a vessel of one hundred gross tons or over having berth or stateroom accommodations for fifty or more passengers, regardless of whether passengers are embarked at United States ports for said voyage.

(b) [Reserved]

[CGD 79–180, 48 FR 7456, Feb. 22, 1983]

§ 80.15 Ocean voyage.

An ocean voyage for the purposes of this part means:

A voyage on any body of water seaward of the low water mark such as an ocean or arm thereof, other major bodies of water such as seas, gulfs, and straits, except voyages exclusively

within harbors and small coastal indentations.

[CGD 79–180, 48 FR 7456, Feb. 22, 1983]

§ 80.20 Exception to requirements.

(a) This part does not apply to vessels that comply with the safety standards set forth in the International Convention for Safety of Life at Sea, 1974.

(b) If the exception in paragraph (a) of this section applies, the country of registry must appear in printed advertising or promotional literature as described in § 80.30(a), in a type no smaller than six points, American point system.

[CGD 72–187R, 38 FR 9081, Apr. 10, 1973, as amended by CGD 79–180, 48 FR 7456, Feb. 22, 1983; CGD 90–008, 55 FR 30661, July 26, 1990]

§ 80.25 Notification of safety standards.

(a) Each owner, operator, agent, or other person, selling passage for a coastwise or an international voyage embarking passengers at a United States port shall give to a prospective passenger, in writing, at the time of or before passage is booked, separately from any promotional literature or advertising used, a document containing the following information for each vessel concerned—

(1) The name of the vessel;

(2) The country of registry;

(3) One of the following statements as appropriate:

(i) This vessel complies with international safety standards, except the 1966 fire safety standards.

(ii) This vessel complies with international safety standards developed prior to 1960. There is (*or*, is not) an automatic sprinkler system fitted in the passenger living and public spaces. The hull, decks, deckhouses, structural bulkheads, and internal partitions are (*or*, are not) composed of combustible materials.

(iii) This vessel does not comply with any international safety standard. There is (*or*, is not) an automatic sprinkler system fitted in the passenger living and public spaces. The hull, decks, deckhouses, structural bulkheads, and internal partitions are (*or*, are not) composed of combustible materials.

(b) The information required in paragraph (a) of this section must be printed in a type no smaller than six points, American point system.

(c) The information required in paragraph (a) of this section must be headed—

(1) ''SAFETY INFORMATION'';

(2) With each letter in the heading capitalized; and

(3) In boldfaced type of a size equal to the size of the text required in paragraph (a) of this section.

[CGD 72–187R, 38 FR 9081, Apr. 10, 1973, as amended by CGD 79–180, 48 FR 7456, Feb. 22, 1983]

§ 80.30 Promotional literature or advertising.

(a) Except as provided in paragraph (f) of this section, all promotional literature or advertising in or over any medium of communication within the United States that offers passage or solicits passengers for ocean voyages anywhere in the world must contain the safety information statement prescribed in paragraph (b) of this section if—

(1) A vessel is named; or

(2) A voyage is described by—

(i) A stated port or area of departure;

(ii) A stated port or area of destination; or

(iii) A schedule of days of departure or arrival.

(b) The safety information statement required in paragraph (a) of this section must include—

(1) The name of the vessel;

(2) The country of registry; and

(3) One of the following statements, as appropriate:

(i) This vessel complies with international safety standards, except the 1966 fire safety standards.

(ii) This vessel complies with international safety standards developed prior to 1960. There is (*or*, is not) an automatic sprinkler fitted in the passenger living and public spaces. The hull, decks, deckhouses, structural bulkheads, and internal partitions are (*or*, are not) composed of combustible materials.

(iii) This vessel does not comply with any international safety standard. There is (*or*, is not) an automatic sprinkler fitted in the passenger living and

public spaces. The hull, decks, deckhouses, structural bulkheads, and internal partitions are (*or*, are not) composed of combustible materials.

(c) The safety information statement prescribed in paragraph (b) of this section must be—

(1) Printed in a type no smaller than 6 points, American point system, that is the same size as any other textual matter of the promotional literature or advertising, including any headings;

(2) Headed ''SAFETY INFORMATION'' in the same size type that is used in the safety information statement; and

(3) Separated from other portions of the text by double spacing or box ruling.

(d) If the promotional literature or advertising lists two or more passenger vessels, the owner or operator shall clearly indicate the safety information prescribed in paragraph (b) of this section for each vessel, but unnecessary repetition is not required.

(e) Each brochure, pamphlet, schedule, and similar publication required in paragraph (a) of this section to contain safety information must—

(1) State the safety information prescribed in paragraph (b) of this section at least once for each vessel named; and

(2) Include a reference in the index of contents or the cover regarding the page number where the safety information for each vessel is located.

(f) The section does not apply to—

(1) An advertising sign that is towed, displayed, or written by aircraft;

(2) An advertisement in a trade publication that is directed to the professional counselors in the travel industry and not intended or used for general distribution to the public for solicitation of passage on a vessel; or

(3) An advertisement within a magazine, newspaper, periodical, or similar publication that is—

(i) Produced outside of the United States;

(ii) Not an American edition; and

(iii) Primarily distributed in the country in which it is produced.

§ 80.40 Civil penalty.

For each violation of the regulations in this part, the owner, operator, agent, or other person involved is subject to the penalties prescribed in 46 U.S.C. 3504.

[CGFR 72–187R, 38 FR 9081, Apr. 10, 1973, as amended by CGD 95–028, 62 FR 51205, Sept. 30, 1997]

PARTS 81–89 [RESERVED]

FINDING AIDS

A list of CFR titles, subtitles, chapters, subchapters and parts and an alphabetical list of agencies publishing in the CFR are included in the CFR Index and Finding Aids volume to the Code of Federal Regulations which is published separately and revised annually.

Table of CFR Titles and Chapters
Alphabetical List of Agencies Appearing in the CFR
List of CFR Sections Affected

Table of CFR Titles and Chapters

(Revised as of October 1, 2017)

Title 1—General Provisions

I Administrative Committee of the Federal Register (Parts 1—49)
II Office of the Federal Register (Parts 50—299)
III Administrative Conference of the United States (Parts 300—399)
IV Miscellaneous Agencies (Parts 400—599)
VI National Capital Planning Commission (Parts 600—699)

Title 2—Grants and Agreements

SUBTITLE A—OFFICE OF MANAGEMENT AND BUDGET GUIDANCE FOR GRANTS AND AGREEMENTS
I Office of Management and Budget Governmentwide Guidance for Grants and Agreements (Parts 2—199)
II Office of Management and Budget Guidance (Parts 200—299)
SUBTITLE B—FEDERAL AGENCY REGULATIONS FOR GRANTS AND AGREEMENTS
III Department of Health and Human Services (Parts 300—399)
IV Department of Agriculture (Parts 400—499)
VI Department of State (Parts 600—699)
VII Agency for International Development (Parts 700—799)
VIII Department of Veterans Affairs (Parts 800—899)
IX Department of Energy (Parts 900—999)
X Department of the Treasury (Parts 1000—1099)
XI Department of Defense (Parts 1100—1199)
XII Department of Transportation (Parts 1200—1299)
XIII Department of Commerce (Parts 1300—1399)
XIV Department of the Interior (Parts 1400—1499)
XV Environmental Protection Agency (Parts 1500—1599)
XVIII National Aeronautics and Space Administration (Parts 1800—1899)
XX United States Nuclear Regulatory Commission (Parts 2000—2099)
XXII Corporation for National and Community Service (Parts 2200—2299)
XXIII Social Security Administration (Parts 2300—2399)
XXIV Housing and Urban Development (Parts 2400—2499)
XXV National Science Foundation (Parts 2500—2599)
XXVI National Archives and Records Administration (Parts 2600—2699)

Title 2—Grants and Agreements—Continued

Chap.	
XXVII	Small Business Administration (Parts 2700—2799)
XXVIII	Department of Justice (Parts 2800—2899)
XXIX	Department of Labor (Parts 2900—2999)
XXX	Department of Homeland Security (Parts 3000—3099)
XXXI	Institute of Museum and Library Services (Parts 3100—3199)
XXXII	National Endowment for the Arts (Parts 3200—3299)
XXXIII	National Endowment for the Humanities (Parts 3300—3399)
XXXIV	Department of Education (Parts 3400—3499)
XXXV	Export-Import Bank of the United States (Parts 3500—3599)
XXXVI	Office of National Drug Control Policy, Executive Office of the President (Parts 3600—3699)
XXXVII	Peace Corps (Parts 3700—3799)
LVIII	Election Assistance Commission (Parts 5800—5899)
LIX	Gulf Coast Ecosystem Restoration Council (Parts 5900—5999)

Title 3—The President

I	Executive Office of the President (Parts 100—199)

Title 4—Accounts

I	Government Accountability Office (Parts 1—199)

Title 5—Administrative Personnel

I	Office of Personnel Management (Parts 1—1199)
II	Merit Systems Protection Board (Parts 1200—1299)
III	Office of Management and Budget (Parts 1300—1399)
IV	Office of Personnel Management and Office of the Director of National Intelligence (Parts 1400—1499)
V	The International Organizations Employees Loyalty Board (Parts 1500—1599)
VI	Federal Retirement Thrift Investment Board (Parts 1600—1699)
VIII	Office of Special Counsel (Parts 1800—1899)
IX	Appalachian Regional Commission (Parts 1900—1999)
XI	Armed Forces Retirement Home (Parts 2100—2199)
XIV	Federal Labor Relations Authority, General Counsel of the Federal Labor Relations Authority and Federal Service Impasses Panel (Parts 2400—2499)
XVI	Office of Government Ethics (Parts 2600—2699)
XXI	Department of the Treasury (Parts 3100—3199)
XXII	Federal Deposit Insurance Corporation (Parts 3200—3299)
XXIII	Department of Energy (Parts 3300—3399)
XXIV	Federal Energy Regulatory Commission (Parts 3400—3499)
XXV	Department of the Interior (Parts 3500—3599)
XXVI	Department of Defense (Parts 3600—3699)

Title 5—Administrative Personnel—Continued

Chap.	
XXVIII	Department of Justice (Parts 3800—3899)
XXIX	Federal Communications Commission (Parts 3900—3999)
XXX	Farm Credit System Insurance Corporation (Parts 4000—4099)
XXXI	Farm Credit Administration (Parts 4100—4199)
XXXIII	Overseas Private Investment Corporation (Parts 4300—4399)
XXXIV	Securities and Exchange Commission (Parts 4400—4499)
XXXV	Office of Personnel Management (Parts 4500—4599)
XXXVI	Department of Homeland Security (Parts 4600—4699)
XXXVII	Federal Election Commission (Parts 4700—4799)
XL	Interstate Commerce Commission (Parts 5000—5099)
XLI	Commodity Futures Trading Commission (Parts 5100—5199)
XLII	Department of Labor (Parts 5200—5299)
XLIII	National Science Foundation (Parts 5300—5399)
XLV	Department of Health and Human Services (Parts 5500—5599)
XLVI	Postal Rate Commission (Parts 5600—5699)
XLVII	Federal Trade Commission (Parts 5700—5799)
XLVIII	Nuclear Regulatory Commission (Parts 5800—5899)
XLIX	Federal Labor Relations Authority (Parts 5900—5999)
L	Department of Transportation (Parts 6000—6099)
LII	Export-Import Bank of the United States (Parts 6200—6299)
LIII	Department of Education (Parts 6300—6399)
LIV	Environmental Protection Agency (Parts 6400—6499)
LV	National Endowment for the Arts (Parts 6500—6599)
LVI	National Endowment for the Humanities (Parts 6600—6699)
LVII	General Services Administration (Parts 6700—6799)
LVIII	Board of Governors of the Federal Reserve System (Parts 6800—6899)
LIX	National Aeronautics and Space Administration (Parts 6900—6999)
LX	United States Postal Service (Parts 7000—7099)
LXI	National Labor Relations Board (Parts 7100—7199)
LXII	Equal Employment Opportunity Commission (Parts 7200—7299)
LXIII	Inter-American Foundation (Parts 7300—7399)
LXIV	Merit Systems Protection Board (Parts 7400—7499)
LXV	Department of Housing and Urban Development (Parts 7500—7599)
LXVI	National Archives and Records Administration (Parts 7600—7699)
LXVII	Institute of Museum and Library Services (Parts 7700—7799)
LXVIII	Commission on Civil Rights (Parts 7800—7899)
LXIX	Tennessee Valley Authority (Parts 7900—7999)
LXX	Court Services and Offender Supervision Agency for the District of Columbia (Parts 8000—8099)
LXXI	Consumer Product Safety Commission (Parts 8100—8199)
LXXIII	Department of Agriculture (Parts 8300—8399)

Title 5—Administrative Personnel—Continued

Chap.

LXXIV Federal Mine Safety and Health Review Commission (Parts 8400—8499)

LXXVI Federal Retirement Thrift Investment Board (Parts 8600—8699)

LXXVII Office of Management and Budget (Parts 8700—8799)

LXXX Federal Housing Finance Agency (Parts 9000—9099)

LXXXIII Special Inspector General for Afghanistan Reconstruction (Parts 9300—9399)

LXXXIV Bureau of Consumer Financial Protection (Parts 9400—9499)

LXXXVI National Credit Union Administration (Parts 9600—9699)

XCVII Department of Homeland Security Human Resources Management System (Department of Homeland Security—Office of Personnel Management) (Parts 9700—9799)

XCVIII Council of the Inspectors General on Integrity and Efficiency (Parts 9800—9899)

XCIX Military Compensation and Retirement Modernization Commission (Parts 9900—9999)

C National Council on Disability (Parts 10000—10049)

Title 6—Domestic Security

I Department of Homeland Security, Office of the Secretary (Parts 1—199)

X Privacy and Civil Liberties Oversight Board (Parts 1000—1099)

Title 7—Agriculture

SUBTITLE A—OFFICE OF THE SECRETARY OF AGRICULTURE (PARTS 0—26)

SUBTITLE B—REGULATIONS OF THE DEPARTMENT OF AGRICULTURE

I Agricultural Marketing Service (Standards, Inspections, Marketing Practices), Department of Agriculture (Parts 27—209)

II Food and Nutrition Service, Department of Agriculture (Parts 210—299)

III Animal and Plant Health Inspection Service, Department of Agriculture (Parts 300—399)

IV Federal Crop Insurance Corporation, Department of Agriculture (Parts 400—499)

V Agricultural Research Service, Department of Agriculture (Parts 500—599)

VI Natural Resources Conservation Service, Department of Agriculture (Parts 600—699)

VII Farm Service Agency, Department of Agriculture (Parts 700—799)

VIII Grain Inspection, Packers and Stockyards Administration (Federal Grain Inspection Service), Department of Agriculture (Parts 800—899)

IX Agricultural Marketing Service (Marketing Agreements and Orders; Fruits, Vegetables, Nuts), Department of Agriculture (Parts 900—999)

Title 7—Agriculture—Continued

Chap.	
X	Agricultural Marketing Service (Marketing Agreements and Orders; Milk), Department of Agriculture (Parts 1000—1199)
XI	Agricultural Marketing Service (Marketing Agreements and Orders; Miscellaneous Commodities), Department of Agriculture (Parts 1200—1299)
XIV	Commodity Credit Corporation, Department of Agriculture (Parts 1400—1499)
XV	Foreign Agricultural Service, Department of Agriculture (Parts 1500—1599)
XVI	Rural Telephone Bank, Department of Agriculture (Parts 1600—1699)
XVII	Rural Utilities Service, Department of Agriculture (Parts 1700—1799)
XVIII	Rural Housing Service, Rural Business-Cooperative Service, Rural Utilities Service, and Farm Service Agency, Department of Agriculture (Parts 1800—2099)
XX	Local Television Loan Guarantee Board (Parts 2200—2299)
XXV	Office of Advocacy and Outreach, Department of Agriculture (Parts 2500—2599)
XXVI	Office of Inspector General, Department of Agriculture (Parts 2600—2699)
XXVII	Office of Information Resources Management, Department of Agriculture (Parts 2700—2799)
XXVIII	Office of Operations, Department of Agriculture (Parts 2800—2899)
XXIX	Office of Energy Policy and New Uses, Department of Agriculture (Parts 2900—2999)
XXX	Office of the Chief Financial Officer, Department of Agriculture (Parts 3000—3099)
XXXI	Office of Environmental Quality, Department of Agriculture (Parts 3100—3199)
XXXII	Office of Procurement and Property Management, Department of Agriculture (Parts 3200—3299)
XXXIII	Office of Transportation, Department of Agriculture (Parts 3300—3399)
XXXIV	National Institute of Food and Agriculture (Parts 3400—3499)
XXXV	Rural Housing Service, Department of Agriculture (Parts 3500—3599)
XXXVI	National Agricultural Statistics Service, Department of Agriculture (Parts 3600—3699)
XXXVII	Economic Research Service, Department of Agriculture (Parts 3700—3799)
XXXVIII	World Agricultural Outlook Board, Department of Agriculture (Parts 3800—3899)
XLI	[Reserved]
XLII	Rural Business-Cooperative Service and Rural Utilities Service, Department of Agriculture (Parts 4200—4299)

Title 8—Aliens and Nationality

Chap.

I Department of Homeland Security (Immigration and Naturalization) (Parts 1—499)

V Executive Office for Immigration Review, Department of Justice (Parts 1000—1399)

Title 9—Animals and Animal Products

I Animal and Plant Health Inspection Service, Department of Agriculture (Parts 1—199)

II Grain Inspection, Packers and Stockyards Administration (Packers and Stockyards Programs), Department of Agriculture (Parts 200—299)

III Food Safety and Inspection Service, Department of Agriculture (Parts 300—599)

Title 10—Energy

I Nuclear Regulatory Commission (Parts 0—199)

II Department of Energy (Parts 200—699)

III Department of Energy (Parts 700—999)

X Department of Energy (General Provisions) (Parts 1000—1099)

XIII Nuclear Waste Technical Review Board (Parts 1300—1399)

XVII Defense Nuclear Facilities Safety Board (Parts 1700—1799)

XVIII Northeast Interstate Low-Level Radioactive Waste Commission (Parts 1800—1899)

Title 11—Federal Elections

I Federal Election Commission (Parts 1—9099)

II Election Assistance Commission (Parts 9400—9499)

Title 12—Banks and Banking

I Comptroller of the Currency, Department of the Treasury (Parts 1—199)

II Federal Reserve System (Parts 200—299)

III Federal Deposit Insurance Corporation (Parts 300—399)

IV Export-Import Bank of the United States (Parts 400—499)

V Office of Thrift Supervision, Department of the Treasury (Parts 500—599)

VI Farm Credit Administration (Parts 600—699)

VII National Credit Union Administration (Parts 700—799)

VIII Federal Financing Bank (Parts 800—899)

IX Federal Housing Finance Board (Parts 900—999)

X Bureau of Consumer Financial Protection (Parts 1000—1099)

XI Federal Financial Institutions Examination Council (Parts 1100—1199)

XII Federal Housing Finance Agency (Parts 1200—1299)

Title 12—Banks and Banking—Continued

Chap.

XIII Financial Stability Oversight Council (Parts 1300—1399)

XIV Farm Credit System Insurance Corporation (Parts 1400—1499)

XV Department of the Treasury (Parts 1500—1599)

XVI Office of Financial Research (Parts 1600—1699)

XVII Office of Federal Housing Enterprise Oversight, Department of Housing and Urban Development (Parts 1700—1799)

XVIII Community Development Financial Institutions Fund, Department of the Treasury (Parts 1800—1899)

Title 13—Business Credit and Assistance

I Small Business Administration (Parts 1—199)

III Economic Development Administration, Department of Commerce (Parts 300—399)

IV Emergency Steel Guarantee Loan Board (Parts 400—499)

V Emergency Oil and Gas Guaranteed Loan Board (Parts 500—599)

Title 14—Aeronautics and Space

I Federal Aviation Administration, Department of Transportation (Parts 1—199)

II Office of the Secretary, Department of Transportation (Aviation Proceedings) (Parts 200—399)

III Commercial Space Transportation, Federal Aviation Administration, Department of Transportation (Parts 400—1199)

V National Aeronautics and Space Administration (Parts 1200—1299)

VI Air Transportation System Stabilization (Parts 1300—1399)

Title 15—Commerce and Foreign Trade

SUBTITLE A—OFFICE OF THE SECRETARY OF COMMERCE (PARTS 0—29)

SUBTITLE B—REGULATIONS RELATING TO COMMERCE AND FOREIGN TRADE

I Bureau of the Census, Department of Commerce (Parts 30—199)

II National Institute of Standards and Technology, Department of Commerce (Parts 200—299)

III International Trade Administration, Department of Commerce (Parts 300—399)

IV Foreign-Trade Zones Board, Department of Commerce (Parts 400—499)

VII Bureau of Industry and Security, Department of Commerce (Parts 700—799)

VIII Bureau of Economic Analysis, Department of Commerce (Parts 800—899)

IX National Oceanic and Atmospheric Administration, Department of Commerce (Parts 900—999)

Title 15—Commerce and Foreign Trade—Continued

Chap.

XI National Technical Information Service, Department of Commerce (Parts 1100—1199)

XIII East-West Foreign Trade Board (Parts 1300—1399)

XIV Minority Business Development Agency (Parts 1400—1499)

SUBTITLE C—REGULATIONS RELATING TO FOREIGN TRADE AGREEMENTS

XX Office of the United States Trade Representative (Parts 2000—2099)

SUBTITLE D—REGULATIONS RELATING TO TELECOMMUNICATIONS AND INFORMATION

XXIII National Telecommunications and Information Administration, Department of Commerce (Parts 2300—2399) [Reserved]

Title 16—Commercial Practices

I Federal Trade Commission (Parts 0—999)

II Consumer Product Safety Commission (Parts 1000—1799)

Title 17—Commodity and Securities Exchanges

I Commodity Futures Trading Commission (Parts 1—199)

II Securities and Exchange Commission (Parts 200—399)

IV Department of the Treasury (Parts 400—499)

Title 18—Conservation of Power and Water Resources

I Federal Energy Regulatory Commission, Department of Energy (Parts 1—399)

III Delaware River Basin Commission (Parts 400—499)

VI Water Resources Council (Parts 700—799)

VIII Susquehanna River Basin Commission (Parts 800—899)

XIII Tennessee Valley Authority (Parts 1300—1399)

Title 19—Customs Duties

I U.S. Customs and Border Protection, Department of Homeland Security; Department of the Treasury (Parts 0—199)

II United States International Trade Commission (Parts 200—299)

III International Trade Administration, Department of Commerce (Parts 300—399)

IV U.S. Immigration and Customs Enforcement, Department of Homeland Security (Parts 400—599) [Reserved]

Title 20—Employees' Benefits

I Office of Workers' Compensation Programs, Department of Labor (Parts 1—199)

II Railroad Retirement Board (Parts 200—399)

Title 20—Employees' Benefits—Continued

Chap.

III Social Security Administration (Parts 400—499)

IV Employees' Compensation Appeals Board, Department of Labor (Parts 500—599)

V Employment and Training Administration, Department of Labor (Parts 600—699)

VI Office of Workers' Compensation Programs, Department of Labor (Parts 700—799)

VII Benefits Review Board, Department of Labor (Parts 800—899)

VIII Joint Board for the Enrollment of Actuaries (Parts 900—999)

IX Office of the Assistant Secretary for Veterans' Employment and Training Service, Department of Labor (Parts 1000—1099)

Title 21—Food and Drugs

I Food and Drug Administration, Department of Health and Human Services (Parts 1—1299)

II Drug Enforcement Administration, Department of Justice (Parts 1300—1399)

III Office of National Drug Control Policy (Parts 1400—1499)

Title 22—Foreign Relations

I Department of State (Parts 1—199)

II Agency for International Development (Parts 200—299)

III Peace Corps (Parts 300—399)

IV International Joint Commission, United States and Canada (Parts 400—499)

V Broadcasting Board of Governors (Parts 500—599)

VII Overseas Private Investment Corporation (Parts 700—799)

IX Foreign Service Grievance Board (Parts 900—999)

X Inter-American Foundation (Parts 1000—1099)

XI International Boundary and Water Commission, United States and Mexico, United States Section (Parts 1100—1199)

XII United States International Development Cooperation Agency (Parts 1200—1299)

XIII Millennium Challenge Corporation (Parts 1300—1399)

XIV Foreign Service Labor Relations Board; Federal Labor Relations Authority; General Counsel of the Federal Labor Relations Authority; and the Foreign Service Impasse Disputes Panel (Parts 1400—1499)

XV African Development Foundation (Parts 1500—1599)

XVI Japan-United States Friendship Commission (Parts 1600—1699)

XVII United States Institute of Peace (Parts 1700—1799)

Title 23—Highways

I Federal Highway Administration, Department of Transportation (Parts 1—999)

Title 23—Highways—Continued

Chap.

II National Highway Traffic Safety Administration and Federal Highway Administration, Department of Transportation (Parts 1200—1299)

III National Highway Traffic Safety Administration, Department of Transportation (Parts 1300—1399)

Title 24—Housing and Urban Development

SUBTITLE A—OFFICE OF THE SECRETARY, DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT (PARTS 0—99)

SUBTITLE B—REGULATIONS RELATING TO HOUSING AND URBAN DEVELOPMENT

I Office of Assistant Secretary for Equal Opportunity, Department of Housing and Urban Development (Parts 100—199)

II Office of Assistant Secretary for Housing-Federal Housing Commissioner, Department of Housing and Urban Development (Parts 200—299)

III Government National Mortgage Association, Department of Housing and Urban Development (Parts 300—399)

IV Office of Housing and Office of Multifamily Housing Assistance Restructuring, Department of Housing and Urban Development (Parts 400—499)

V Office of Assistant Secretary for Community Planning and Development, Department of Housing and Urban Development (Parts 500—599)

VI Office of Assistant Secretary for Community Planning and Development, Department of Housing and Urban Development (Parts 600—699) [Reserved]

VII Office of the Secretary, Department of Housing and Urban Development (Housing Assistance Programs and Public and Indian Housing Programs) (Parts 700—799)

VIII Office of the Assistant Secretary for Housing—Federal Housing Commissioner, Department of Housing and Urban Development (Section 8 Housing Assistance Programs, Section 202 Direct Loan Program, Section 202 Supportive Housing for the Elderly Program and Section 811 Supportive Housing for Persons With Disabilities Program) (Parts 800—899)

IX Office of Assistant Secretary for Public and Indian Housing, Department of Housing and Urban Development (Parts 900—1699)

X Office of Assistant Secretary for Housing—Federal Housing Commissioner, Department of Housing and Urban Development (Interstate Land Sales Registration Program) (Parts 1700—1799)

XII Office of Inspector General, Department of Housing and Urban Development (Parts 2000—2099)

XV Emergency Mortgage Insurance and Loan Programs, Department of Housing and Urban Development (Parts 2700—2799) [Reserved]

XX Office of Assistant Secretary for Housing—Federal Housing Commissioner, Department of Housing and Urban Development (Parts 3200—3899)

Title 24—Housing and Urban Development—Continued

Chap.

XXIV Board of Directors of the HOPE for Homeowners Program (Parts 4000—4099) [Reserved]

XXV Neighborhood Reinvestment Corporation (Parts 4100—4199)

Title 25—Indians

I Bureau of Indian Affairs, Department of the Interior (Parts 1—299)

II Indian Arts and Crafts Board, Department of the Interior (Parts 300—399)

III National Indian Gaming Commission, Department of the Interior (Parts 500—599)

IV Office of Navajo and Hopi Indian Relocation (Parts 700—899)

V Bureau of Indian Affairs, Department of the Interior, and Indian Health Service, Department of Health and Human Services (Part 900)

VI Office of the Assistant Secretary, Indian Affairs, Department of the Interior (Parts 1000—1199)

VII Office of the Special Trustee for American Indians, Department of the Interior (Parts 1200—1299)

Title 26—Internal Revenue

I Internal Revenue Service, Department of the Treasury (Parts 1—End)

Title 27—Alcohol, Tobacco Products and Firearms

I Alcohol and Tobacco Tax and Trade Bureau, Department of the Treasury (Parts 1—399)

II Bureau of Alcohol, Tobacco, Firearms, and Explosives, Department of Justice (Parts 400—699)

Title 28—Judicial Administration

I Department of Justice (Parts 0—299)

III Federal Prison Industries, Inc., Department of Justice (Parts 300—399)

V Bureau of Prisons, Department of Justice (Parts 500—599)

VI Offices of Independent Counsel, Department of Justice (Parts 600—699)

VII Office of Independent Counsel (Parts 700—799)

VIII Court Services and Offender Supervision Agency for the District of Columbia (Parts 800—899)

IX National Crime Prevention and Privacy Compact Council (Parts 900—999)

XI Department of Justice and Department of State (Parts 1100—1199)

Title 29—Labor

Chap.

SUBTITLE A—OFFICE OF THE SECRETARY OF LABOR (PARTS 0—99)

SUBTITLE B—REGULATIONS RELATING TO LABOR

I National Labor Relations Board (Parts 100—199)

II Office of Labor-Management Standards, Department of Labor (Parts 200—299)

III National Railroad Adjustment Board (Parts 300—399)

IV Office of Labor-Management Standards, Department of Labor (Parts 400—499)

V Wage and Hour Division, Department of Labor (Parts 500—899)

IX Construction Industry Collective Bargaining Commission (Parts 900—999)

X National Mediation Board (Parts 1200—1299)

XII Federal Mediation and Conciliation Service (Parts 1400—1499)

XIV Equal Employment Opportunity Commission (Parts 1600—1699)

XVII Occupational Safety and Health Administration, Department of Labor (Parts 1900—1999)

XX Occupational Safety and Health Review Commission (Parts 2200—2499)

XXV Employee Benefits Security Administration, Department of Labor (Parts 2500—2599)

XXVII Federal Mine Safety and Health Review Commission (Parts 2700—2799)

XL Pension Benefit Guaranty Corporation (Parts 4000—4999)

Title 30—Mineral Resources

I Mine Safety and Health Administration, Department of Labor (Parts 1—199)

II Bureau of Safety and Environmental Enforcement, Department of the Interior (Parts 200—299)

IV Geological Survey, Department of the Interior (Parts 400—499)

V Bureau of Ocean Energy Management, Department of the Interior (Parts 500—599)

VII Office of Surface Mining Reclamation and Enforcement, Department of the Interior (Parts 700—999)

XII Office of Natural Resources Revenue, Department of the Interior (Parts 1200—1299)

Title 31—Money and Finance: Treasury

SUBTITLE A—OFFICE OF THE SECRETARY OF THE TREASURY (PARTS 0—50)

SUBTITLE B—REGULATIONS RELATING TO MONEY AND FINANCE

I Monetary Offices, Department of the Treasury (Parts 51—199)

II Fiscal Service, Department of the Treasury (Parts 200—399)

IV Secret Service, Department of the Treasury (Parts 400—499)

V Office of Foreign Assets Control, Department of the Treasury (Parts 500—599)

Title 31—Money and Finance: Treasury—Continued

Chap.

VI Bureau of Engraving and Printing, Department of the Treasury (Parts 600—699)

VII Federal Law Enforcement Training Center, Department of the Treasury (Parts 700—799)

VIII Office of Investment Security, Department of the Treasury (Parts 800—899)

IX Federal Claims Collection Standards (Department of the Treasury—Department of Justice) (Parts 900—999)

X Financial Crimes Enforcement Network, Department of the Treasury (Parts 1000—1099)

Title 32—National Defense

SUBTITLE A—DEPARTMENT OF DEFENSE

I Office of the Secretary of Defense (Parts 1—399)

V Department of the Army (Parts 400—699)

VI Department of the Navy (Parts 700—799)

VII Department of the Air Force (Parts 800—1099)

SUBTITLE B—OTHER REGULATIONS RELATING TO NATIONAL DEFENSE

XII Defense Logistics Agency (Parts 1200—1299)

XVI Selective Service System (Parts 1600—1699)

XVII Office of the Director of National Intelligence (Parts 1700—1799)

XVIII National Counterintelligence Center (Parts 1800—1899)

XIX Central Intelligence Agency (Parts 1900—1999)

XX Information Security Oversight Office, National Archives and Records Administration (Parts 2000—2099)

XXI National Security Council (Parts 2100—2199)

XXIV Office of Science and Technology Policy (Parts 2400—2499)

XXVII Office for Micronesian Status Negotiations (Parts 2700—2799)

XXVIII Office of the Vice President of the United States (Parts 2800—2899)

Title 33—Navigation and Navigable Waters

I Coast Guard, Department of Homeland Security (Parts 1—199)

II Corps of Engineers, Department of the Army, Department of Defense (Parts 200—399)

IV Saint Lawrence Seaway Development Corporation, Department of Transportation (Parts 400—499)

Title 34—Education

SUBTITLE A—OFFICE OF THE SECRETARY, DEPARTMENT OF EDUCATION (PARTS 1—99)

SUBTITLE B—REGULATIONS OF THE OFFICES OF THE DEPARTMENT OF EDUCATION

I Office for Civil Rights, Department of Education (Parts 100—199)

Title 34—Education—Continued

Chap.

II Office of Elementary and Secondary Education, Department of Education (Parts 200—299)

III Office of Special Education and Rehabilitative Services, Department of Education (Parts 300—399)

IV Office of Career, Technical and Adult Education, Department of Education (Parts 400—499)

V Office of Bilingual Education and Minority Languages Affairs, Department of Education (Parts 500—599) [Reserved]

VI Office of Postsecondary Education, Department of Education (Parts 600—699)

VII Office of Educational Research and Improvement, Department of Education (Parts 700—799) [Reserved]

SUBTITLE C—REGULATIONS RELATING TO EDUCATION

XI [Reserved]

XII National Council on Disability (Parts 1200—1299)

Title 35 [Reserved]

Title 36—Parks, Forests, and Public Property

I National Park Service, Department of the Interior (Parts 1—199)

II Forest Service, Department of Agriculture (Parts 200—299)

III Corps of Engineers, Department of the Army (Parts 300—399)

IV American Battle Monuments Commission (Parts 400—499)

V Smithsonian Institution (Parts 500—599)

VI [Reserved]

VII Library of Congress (Parts 700—799)

VIII Advisory Council on Historic Preservation (Parts 800—899)

IX Pennsylvania Avenue Development Corporation (Parts 900—999)

X Presidio Trust (Parts 1000—1099)

XI Architectural and Transportation Barriers Compliance Board (Parts 1100—1199)

XII National Archives and Records Administration (Parts 1200—1299)

XV Oklahoma City National Memorial Trust (Parts 1500—1599)

XVI Morris K. Udall Scholarship and Excellence in National Environmental Policy Foundation (Parts 1600—1699)

Title 37—Patents, Trademarks, and Copyrights

I United States Patent and Trademark Office, Department of Commerce (Parts 1—199)

II U.S. Copyright Office, Library of Congress (Parts 200—299)

III Copyright Royalty Board, Library of Congress (Parts 300—399)

IV National Institute of Standards and Technology, Department of Commerce (Parts 400—599)

Title 38—Pensions, Bonuses, and Veterans' Relief

Chap.

I Department of Veterans Affairs (Parts 0—199)

II Armed Forces Retirement Home (Parts 200—299)

Title 39—Postal Service

I United States Postal Service (Parts 1—999)

III Postal Regulatory Commission (Parts 3000—3099)

Title 40—Protection of Environment

I Environmental Protection Agency (Parts 1—1099)

IV Environmental Protection Agency and Department of Justice (Parts 1400—1499)

V Council on Environmental Quality (Parts 1500—1599)

VI Chemical Safety and Hazard Investigation Board (Parts 1600—1699)

VII Environmental Protection Agency and Department of Defense; Uniform National Discharge Standards for Vessels of the Armed Forces (Parts 1700—1799)

VIII Gulf Coast Ecosystem Restoration Council (Parts 1800—1899)

Title 41—Public Contracts and Property Management

SUBTITLE A—FEDERAL PROCUREMENT REGULATIONS SYSTEM [NOTE]

SUBTITLE B—OTHER PROVISIONS RELATING TO PUBLIC CONTRACTS

50 Public Contracts, Department of Labor (Parts 50–1—50–999)

51 Committee for Purchase From People Who Are Blind or Severely Disabled (Parts 51–1—51–99)

60 Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor (Parts 60–1—60–999)

61 Office of the Assistant Secretary for Veterans' Employment and Training Service, Department of Labor (Parts 61–1—61–999)

62—100 [Reserved]

SUBTITLE C—FEDERAL PROPERTY MANAGEMENT REGULATIONS SYSTEM

101 Federal Property Management Regulations (Parts 101–1—101–99)

102 Federal Management Regulation (Parts 102–1—102–299)

103—104 [Reserved]

105 General Services Administration (Parts 105–1—105–999)

109 Department of Energy Property Management Regulations (Parts 109–1—109–99)

114 Department of the Interior (Parts 114–1—114–99)

115 Environmental Protection Agency (Parts 115–1—115–99)

128 Department of Justice (Parts 128–1—128–99)

129—200 [Reserved]

SUBTITLE D—OTHER PROVISIONS RELATING TO PROPERTY MANAGEMENT [RESERVED]

Title 41—Public Contracts and Property Management—Continued

Chap.

SUBTITLE E—FEDERAL INFORMATION RESOURCES MANAGEMENT REGULATIONS SYSTEM [RESERVED]

SUBTITLE F—FEDERAL TRAVEL REGULATION SYSTEM

300 General (Parts 300–1—300–99)

301 Temporary Duty (TDY) Travel Allowances (Parts 301–1—301–99)

302 Relocation Allowances (Parts 302–1—302–99)

303 Payment of Expenses Connected with the Death of Certain Employees (Part 303–1—303–99)

304 Payment of Travel Expenses from a Non-Federal Source (Parts 304–1—304–99)

Title 42—Public Health

I Public Health Service, Department of Health and Human Services (Parts 1—199)

ii—III [Reserved]

IV Centers for Medicare & Medicaid Services, Department of Health and Human Services (Parts 400—699)

V Office of Inspector General-Health Care, Department of Health and Human Services (Parts 1000—1099)

Title 43—Public Lands: Interior

SUBTITLE A—OFFICE OF THE SECRETARY OF THE INTERIOR (PARTS 1—199)

SUBTITLE B—REGULATIONS RELATING TO PUBLIC LANDS

I Bureau of Reclamation, Department of the Interior (Parts 400—999)

II Bureau of Land Management, Department of the Interior (Parts 1000—9999)

III Utah Reclamation Mitigation and Conservation Commission (Parts 10000—10099)

Title 44—Emergency Management and Assistance

I Federal Emergency Management Agency, Department of Homeland Security (Parts 0—399)

IV Department of Commerce and Department of Transportation (Parts 400—499)

Title 45—Public Welfare

SUBTITLE A—DEPARTMENT OF HEALTH AND HUMAN SERVICES (PARTS 1—199)

SUBTITLE B—REGULATIONS RELATING TO PUBLIC WELFARE

II Office of Family Assistance (Assistance Programs), Administration for Children and Families, Department of Health and Human Services (Parts 200—299)

Title 45—Public Welfare—Continued

Chap.

III Office of Child Support Enforcement (Child Support Enforcement Program), Administration for Children and Families, Department of Health and Human Services (Parts 300—399)

IV Office of Refugee Resettlement, Administration for Children and Families, Department of Health and Human Services (Parts 400—499)

V Foreign Claims Settlement Commission of the United States, Department of Justice (Parts 500—599)

VI National Science Foundation (Parts 600—699)

VII Commission on Civil Rights (Parts 700—799)

VIII Office of Personnel Management (Parts 800—899)

IX Denali Commission (Parts 900—999)

X Office of Community Services, Administration for Children and Families, Department of Health and Human Services (Parts 1000—1099)

XI National Foundation on the Arts and the Humanities (Parts 1100—1199)

XII Corporation for National and Community Service (Parts 1200—1299)

XIII Administration for Children and Families, Department of Health and Human Services (Parts 1300—1399)

XVI Legal Services Corporation (Parts 1600—1699)

XVII National Commission on Libraries and Information Science (Parts 1700—1799)

XVIII Harry S. Truman Scholarship Foundation (Parts 1800—1899)

XXI Commission of Fine Arts (Parts 2100—2199)

XXIII Arctic Research Commission (Part 2301)

XXIV James Madison Memorial Fellowship Foundation (Parts 2400—2499)

XXV Corporation for National and Community Service (Parts 2500—2599)

Title 46—Shipping

I Coast Guard, Department of Homeland Security (Parts 1—199)

II Maritime Administration, Department of Transportation (Parts 200—399)

III Coast Guard (Great Lakes Pilotage), Department of Homeland Security (Parts 400—499)

IV Federal Maritime Commission (Parts 500—599)

Title 47—Telecommunication

I Federal Communications Commission (Parts 0—199)

II Office of Science and Technology Policy and National Security Council (Parts 200—299)

III National Telecommunications and Information Administration, Department of Commerce (Parts 300—399)

Title 47—Telecommunication—Continued

Chap.

IV National Telecommunications and Information Administration, Department of Commerce, and National Highway Traffic Safety Administration, Department of Transportation (Parts 400—499)

V The First Responder Network Authority (Parts 500—599)

Title 48—Federal Acquisition Regulations System

1 Federal Acquisition Regulation (Parts 1—99)

2 Defense Acquisition Regulations System, Department of Defense (Parts 200—299)

3 Health and Human Services (Parts 300—399)

4 Department of Agriculture (Parts 400—499)

5 General Services Administration (Parts 500—599)

6 Department of State (Parts 600—699)

7 Agency for International Development (Parts 700—799)

8 Department of Veterans Affairs (Parts 800—899)

9 Department of Energy (Parts 900—999)

10 Department of the Treasury (Parts 1000—1099)

12 Department of Transportation (Parts 1200—1299)

13 Department of Commerce (Parts 1300—1399)

14 Department of the Interior (Parts 1400—1499)

15 Environmental Protection Agency (Parts 1500—1599)

16 Office of Personnel Management, Federal Employees Health Benefits Acquisition Regulation (Parts 1600—1699)

17 Office of Personnel Management (Parts 1700—1799)

18 National Aeronautics and Space Administration (Parts 1800—1899)

19 Broadcasting Board of Governors (Parts 1900—1999)

20 Nuclear Regulatory Commission (Parts 2000—2099)

21 Office of Personnel Management, Federal Employees Group Life Insurance Federal Acquisition Regulation (Parts 2100—2199)

23 Social Security Administration (Parts 2300—2399)

24 Department of Housing and Urban Development (Parts 2400—2499)

25 National Science Foundation (Parts 2500—2599)

28 Department of Justice (Parts 2800—2899)

29 Department of Labor (Parts 2900—2999)

30 Department of Homeland Security, Homeland Security Acquisition Regulation (HSAR) (Parts 3000—3099)

34 Department of Education Acquisition Regulation (Parts 3400—3499)

51 Department of the Army Acquisition Regulations (Parts 5100—5199)

52 Department of the Navy Acquisition Regulations (Parts 5200—5299)

53 Department of the Air Force Federal Acquisition Regulation Supplement (Parts 5300—5399) [Reserved]

Title 48—Federal Acquisition Regulations System—Continued

Chap.

54 Defense Logistics Agency, Department of Defense (Parts 5400—5499)

57 African Development Foundation (Parts 5700—5799)

61 Civilian Board of Contract Appeals, General Services Administration (Parts 6100—6199)

99 Cost Accounting Standards Board, Office of Federal Procurement Policy, Office of Management and Budget (Parts 9900—9999)

Title 49—Transportation

SUBTITLE A—OFFICE OF THE SECRETARY OF TRANSPORTATION (PARTS 1—99)

SUBTITLE B—OTHER REGULATIONS RELATING TO TRANSPORTATION

I Pipeline and Hazardous Materials Safety Administration, Department of Transportation (Parts 100—199)

II Federal Railroad Administration, Department of Transportation (Parts 200—299)

III Federal Motor Carrier Safety Administration, Department of Transportation (Parts 300—399)

IV Coast Guard, Department of Homeland Security (Parts 400—499)

V National Highway Traffic Safety Administration, Department of Transportation (Parts 500—599)

VI Federal Transit Administration, Department of Transportation (Parts 600—699)

VII National Railroad Passenger Corporation (AMTRAK) (Parts 700—799)

VIII National Transportation Safety Board (Parts 800—999)

X Surface Transportation Board (Parts 1000—1399)

XI Research and Innovative Technology Administration, Department of Transportation (Parts 1400—1499) [Reserved]

XII Transportation Security Administration, Department of Homeland Security (Parts 1500—1699)

Title 50—Wildlife and Fisheries

I United States Fish and Wildlife Service, Department of the Interior (Parts 1—199)

II National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Department of Commerce (Parts 200—299)

III International Fishing and Related Activities (Parts 300—399)

IV Joint Regulations (United States Fish and Wildlife Service, Department of the Interior and National Marine Fisheries Service, National Oceanic and Atmospheric Administration, Department of Commerce); Endangered Species Committee Regulations (Parts 400—499)

V Marine Mammal Commission (Parts 500—599)

Title 50—Wildlife and Fisheries—Continued

Chap.

VI Fishery Conservation and Management, National Oceanic and Atmospheric Administration, Department of Commerce (Parts 600—699)

Alphabetical List of Agencies Appearing in the CFR

(Revised as of October 1, 2017)

Agency	CFR Title, Subtitle or Chapter
Administrative Committee of the Federal Register	1, I
Administrative Conference of the United States	1, III
Advisory Council on Historic Preservation	36, VIII
Advocacy and Outreach, Office of	7, XXV
Afghanistan Reconstruction, Special Inspector General for	5, LXXXIII
African Development Foundation	22, XV
Federal Acquisition Regulation	48, 57
Agency for International Development	2, VII; 22, II
Federal Acquisition Regulation	48, 7
Agricultural Marketing Service	7, I, IX, X, XI
Agricultural Research Service	7, V
Agriculture Department	2, IV; 5, LXXIII
Advocacy and Outreach, Office of	7, XXV
Agricultural Marketing Service	7, I, IX, X, XI
Agricultural Research Service	7, V
Animal and Plant Health Inspection Service	7, III; 9, I
Chief Financial Officer, Office of	7, XXX
Commodity Credit Corporation	7, XIV
Economic Research Service	7, XXXVII
Energy Policy and New Uses, Office of	2, IX; 7, XXIX
Environmental Quality, Office of	7, XXXI
Farm Service Agency	7, VII, XVIII
Federal Acquisition Regulation	48, 4
Federal Crop Insurance Corporation	7, IV
Food and Nutrition Service	7, II
Food Safety and Inspection Service	9, III
Foreign Agricultural Service	7, XV
Forest Service	36, II
Grain Inspection, Packers and Stockyards Administration	7, VIII; 9, II
Information Resources Management, Office of	7, XXVII
Inspector General, Office of	7, XXVI
National Agricultural Library	7, XLI
National Agricultural Statistics Service	7, XXXVI
National Institute of Food and Agriculture	7, XXXIV
Natural Resources Conservation Service	7, VI
Operations, Office of	7, XXVIII
Procurement and Property Management, Office of	7, XXXII
Rural Business-Cooperative Service	7, XVIII, XLII
Rural Development Administration	7, XLII
Rural Housing Service	7, XVIII, XXXV
Rural Telephone Bank	7, XVI
Rural Utilities Service	7, XVII, XVIII, XLII
Secretary of Agriculture, Office of	7, Subtitle A
Transportation, Office of	7, XXXIII
World Agricultural Outlook Board	7, XXXVIII
Air Force Department	32, VII
Federal Acquisition Regulation Supplement	48, 53
Air Transportation Stabilization Board	14, VI
Alcohol and Tobacco Tax and Trade Bureau	27, I
Alcohol, Tobacco, Firearms, and Explosives, Bureau of	27, II
AMTRAK	49, VII
American Battle Monuments Commission	36, IV
American Indians, Office of the Special Trustee	25, VII

Agency	CFR Title, Subtitle or Chapter
Animal and Plant Health Inspection Service	7, III; 9, I
Appalachian Regional Commission	5, IX
Architectural and Transportation Barriers Compliance Board	36, XI
Arctic Research Commission	45, XXIII
Armed Forces Retirement Home	5, XI
Army Department	32, V
Engineers, Corps of	33, II; 36, III
Federal Acquisition Regulation	48, 51
Bilingual Education and Minority Languages Affairs, Office of	34, V
Blind or Severely Disabled, Committee for Purchase from People Who Are	41, 51
Broadcasting Board of Governors	22, V
Federal Acquisition Regulation	48, 19
Career, Technical and Adult Education, Office of	34, IV
Census Bureau	15, I
Centers for Medicare & Medicaid Services	42, IV
Central Intelligence Agency	32, XIX
Chemical Safety and Hazardous Investigation Board	40, VI
Chief Financial Officer, Office of	7, XXX
Child Support Enforcement, Office of	45, III
Children and Families, Administration for	45, II, III, IV, X, XIII
Civil Rights, Commission on	5, LXVIII; 45, VII
Civil Rights, Office for	34, I
Council of the Inspectors General on Integrity and Efficiency	5, XCVIII
Court Services and Offender Supervision Agency for the District of Columbia	5, LXX
Coast Guard	33, I; 46, I; 49, IV
Coast Guard (Great Lakes Pilotage)	46, III
Commerce Department	2, XIII; 44, IV; 50, VI
Census Bureau	15, I
Economic Analysis, Bureau of	15, VIII
Economic Development Administration	13, III
Emergency Management and Assistance	44, IV
Federal Acquisition Regulation	48, 13
Foreign-Trade Zones Board	15, IV
Industry and Security, Bureau of	15, VII
International Trade Administration	15, III; 19, III
National Institute of Standards and Technology	15, II; 37, IV
National Marine Fisheries Service	50, II, IV
National Oceanic and Atmospheric Administration	15, IX; 50, II, III, IV, VI
National Technical Information Service	15, XI
National Telecommunications and Information Administration	15, XXIII; 47, III, IV
National Weather Service	15, IX
Patent and Trademark Office, United States	37, I
Secretary of Commerce, Office of	15, Subtitle A
Commercial Space Transportation	14, III
Commodity Credit Corporation	7, XIV
Commodity Futures Trading Commission	5, XLI; 17, I
Community Planning and Development, Office of Assistant Secretary for	24, V, VI
Community Services, Office of	45, X
Comptroller of the Currency	12, I
Construction Industry Collective Bargaining Commission	29, IX
Consumer Financial Protection Bureau	5, LXXXIV; 12, X
Consumer Product Safety Commission	5, LXXI; 16, II
Copyright Royalty Board	37, III
Corporation for National and Community Service	2, XXII; 45, XII, XXV
Cost Accounting Standards Board	48, 99
Council on Environmental Quality	40, V
Court Services and Offender Supervision Agency for the District of Columbia	5, LXX; 28, VIII
Customs and Border Protection	19, I
Defense Contract Audit Agency	32, I
Defense Department	2, XI; 5, XXVI; 32, Subtitle A; 40, VII
Advanced Research Projects Agency	32, I

Agency	CFR Title, Subtitle or Chapter
Air Force Department	32, VII
Army Department	32, V; 33, II; 36, III; 48, 51
Defense Acquisition Regulations System	48, 2
Defense Intelligence Agency	32, I
Defense Logistics Agency	32, I, XII; 48, 54
Engineers, Corps of	33, II; 36, III
National Imagery and Mapping Agency	32, I
Navy Department	32, VI; 48, 52
Secretary of Defense, Office of	2, XI; 32, I
Defense Contract Audit Agency	32, I
Defense Intelligence Agency	32, I
Defense Logistics Agency	32, XII; 48, 54
Defense Nuclear Facilities Safety Board	10, XVII
Delaware River Basin Commission	18, III
Denali Commission	45, IX
District of Columbia, Court Services and Offender Supervision Agency for the	5, LXX; 28, VIII
Drug Enforcement Administration	21, II
East-West Foreign Trade Board	15, XIII
Economic Analysis, Bureau of	15, VIII
Economic Development Administration	13, III
Economic Research Service	7, XXXVII
Education, Department of	2, XXXIV; 5, LIII
Bilingual Education and Minority Languages Affairs, Office of	34, V
Career, Technical and Adult Education, Office of	34, IV
Civil Rights, Office for	34, I
Educational Research and Improvement, Office of	34, VII
Elementary and Secondary Education, Office of	34, II
Federal Acquisition Regulation	48, 34
Postsecondary Education, Office of	34, VI
Secretary of Education, Office of	34, Subtitle A
Special Education and Rehabilitative Services, Office of	34, III
Career, Technical, and Adult Education, Office of	34, IV
Educational Research and Improvement, Office of	34, VII
Election Assistance Commission	2, LVIII; 11, II
Elementary and Secondary Education, Office of	34, II
Emergency Oil and Gas Guaranteed Loan Board	13, V
Emergency Steel Guarantee Loan Board	13, IV
Employee Benefits Security Administration	29, XXV
Employees' Compensation Appeals Board	20, IV
Employees Loyalty Board	5, V
Employment and Training Administration	20, V
Employment Standards Administration	20, VI
Endangered Species Committee	50, IV
Energy, Department of	2, IX; 5, XXIII; 10, II, III, X
Federal Acquisition Regulation	48, 9
Federal Energy Regulatory Commission	5, XXIV; 18, I
Property Management Regulations	41, 109
Energy, Office of	7, XXIX
Engineers, Corps of	33, II; 36, III
Engraving and Printing, Bureau of	31, VI
Environmental Protection Agency	2, XV; 5, LIV; 40, I, IV, VII
Federal Acquisition Regulation	48, 15
Property Management Regulations	41, 115
Environmental Quality, Office of	7, XXXI
Equal Employment Opportunity Commission	5, LXII; 29, XIV
Equal Opportunity, Office of Assistant Secretary for	24, I
Executive Office of the President	3, I
Environmental Quality, Council on	40, V
Management and Budget, Office of	2, Subtitle A; 5, III, LXXVII; 14, VI; 48, 99
National Drug Control Policy, Office of	2, XXXVI; 21, III
National Security Council	32, XXI; 47, 2

Agency	CFR Title, Subtitle or Chapter
Presidential Documents	3
Science and Technology Policy, Office of	32, XXIV; 47, II
Trade Representative, Office of the United States	15, XX
Export-Import Bank of the United States	2, XXXV; 5, LII; 12, IV
Family Assistance, Office of	45, II
Farm Credit Administration	5, XXXI; 12, VI
Farm Credit System Insurance Corporation	5, XXX; 12, XIV
Farm Service Agency	7, VII, XVIII
Federal Acquisition Regulation	48, 1
Federal Aviation Administration	14, I
Commercial Space Transportation	14, III
Federal Claims Collection Standards	31, IX
Federal Communications Commission	5, XXIX; 47, I
Federal Contract Compliance Programs, Office of	41, 60
Federal Crop Insurance Corporation	7, IV
Federal Deposit Insurance Corporation	5, XXII; 12, III
Federal Election Commission	5, XXXVII; 11, I
Federal Emergency Management Agency	44, I
Federal Employees Group Life Insurance Federal Acquisition Regulation	48, 21
Federal Employees Health Benefits Acquisition Regulation	48, 16
Federal Energy Regulatory Commission	5, XXIV; 18, I
Federal Financial Institutions Examination Council	12, XI
Federal Financing Bank	12, VIII
Federal Highway Administration	23, I, II
Federal Home Loan Mortgage Corporation	1, IV
Federal Housing Enterprise Oversight Office	12, XVII
Federal Housing Finance Agency	5, LXXX; 12, XII
Federal Housing Finance Board	12, IX
Federal Labor Relations Authority	5, XIV, XLIX; 22, XIV
Federal Law Enforcement Training Center	31, VII
Federal Management Regulation	41, 102
Federal Maritime Commission	46, IV
Federal Mediation and Conciliation Service	29, XII
Federal Mine Safety and Health Review Commission	5, LXXIV; 29, XXVII
Federal Motor Carrier Safety Administration	49, III
Federal Prison Industries, Inc.	28, III
Federal Procurement Policy Office	48, 99
Federal Property Management Regulations	41, 101
Federal Railroad Administration	49, II
Federal Register, Administrative Committee of	1, I
Federal Register, Office of	1, II
Federal Reserve System	12, II
Board of Governors	5, LVIII
Federal Retirement Thrift Investment Board	5, VI, LXXVI
Federal Service Impasses Panel	5, XIV
Federal Trade Commission	5, XLVII; 16, I
Federal Transit Administration	49, VI
Federal Travel Regulation System	41, Subtitle F
Financial Crimes Enforcement Network	31, X
Financial Research Office	12, XVI
Financial Stability Oversight Council	12, XIII
Fine Arts, Commission of	45, XXI
Fiscal Service	31, II
Fish and Wildlife Service, United States	50, I, IV
Food and Drug Administration	21, I
Food and Nutrition Service	7, II
Food Safety and Inspection Service	9, III
Foreign Agricultural Service	7, XV
Foreign Assets Control, Office of	31, V
Foreign Claims Settlement Commission of the United States	45, V
Foreign Service Grievance Board	22, IX
Foreign Service Impasse Disputes Panel	22, XIV
Foreign Service Labor Relations Board	22, XIV
Foreign-Trade Zones Board	15, IV
Forest Service	36, II
General Services Administration	5, LVII; 41, 105

Agency	CFR Title, Subtitle or Chapter
Contract Appeals, Board of	48, 61
Federal Acquisition Regulation	48, 5
Federal Management Regulation	41, 102
Federal Property Management Regulations	41, 101
Federal Travel Regulation System	41, Subtitle F
General	41, 300
Payment From a Non-Federal Source for Travel Expenses	41, 304
Payment of Expenses Connected With the Death of Certain Employees	41, 303
Relocation Allowances	41, 302
Temporary Duty (TDY) Travel Allowances	41, 301
Geological Survey	30, IV
Government Accountability Office	4, I
Government Ethics, Office of	5, XVI
Government National Mortgage Association	24, III
Grain Inspection, Packers and Stockyards Administration	7, VIII; 9, II
Gulf Coast Ecosystem Restoration Council	2, LIX; 40, VIII
Harry S. Truman Scholarship Foundation	45, XVIII
Health and Human Services, Department of	2, III; 5, XLV; 45, Subtitle A
Centers for Medicare & Medicaid Services	42, IV
Child Support Enforcement, Office of	45, III
Children and Families, Administration for	45, II, III, IV, X, XIII
Community Services, Office of	45, X
Family Assistance, Office of	45, II
Federal Acquisition Regulation	48, 3
Food and Drug Administration	21, I
Indian Health Service	25, V
Inspector General (Health Care), Office of	42, V
Public Health Service	42, I
Refugee Resettlement, Office of	45, IV
Homeland Security, Department of	2, XXX; 5, XXXVI; 6, I; 8, I
Coast Guard	33, I; 46, I; 49, IV
Coast Guard (Great Lakes Pilotage)	46, III
Customs and Border Protection	19, I
Federal Emergency Management Agency	44, I
Human Resources Management and Labor Relations Systems	5, XCVII
Immigration and Customs Enforcement Bureau	19, IV
Transportation Security Administration	49, XII
HOPE for Homeowners Program, Board of Directors of	24, XXIV
Housing and Urban Development, Department of	2, XXIV; 5, LXV; 24, Subtitle B
Community Planning and Development, Office of Assistant Secretary for	24, V, VI
Equal Opportunity, Office of Assistant Secretary for	24, I
Federal Acquisition Regulation	48, 24
Federal Housing Enterprise Oversight, Office of	12, XVII
Government National Mortgage Association	24, III
Housing—Federal Housing Commissioner, Office of Assistant Secretary for	24, II, VIII, X, XX
Housing, Office of, and Multifamily Housing Assistance Restructuring, Office of	24, IV
Inspector General, Office of	24, XII
Public and Indian Housing, Office of Assistant Secretary for	24, IX
Secretary, Office of	24, Subtitle A, VII
Housing—Federal Housing Commissioner, Office of Assistant Secretary for	24, II, VIII, X, XX
Housing, Office of, and Multifamily Housing Assistance Restructuring, Office of	24, IV
Immigration and Customs Enforcement Bureau	19, IV
Immigration Review, Executive Office for	8, V
Independent Counsel, Office of	28, VII
Independent Counsel, Offices of	28, VI
Indian Affairs, Bureau of	25, I, V
Indian Affairs, Office of the Assistant Secretary	25, VI

Agency	CFR Title, Subtitle or Chapter
Indian Arts and Crafts Board	25, II
Indian Health Service	25, V
Industry and Security, Bureau of	15, VII
Information Resources Management, Office of	7, XXVII
Information Security Oversight Office, National Archives and Records Administration	32, XX
Inspector General	
Agriculture Department	7, XXVI
Health and Human Services Department	42, V
Housing and Urban Development Department	24, XII, XV
Institute of Peace, United States	22, XVII
Inter-American Foundation	5, LXIII; 22, X
Interior Department	2, XIV
American Indians, Office of the Special Trustee	25, VII
Endangered Species Committee	50, IV
Federal Acquisition Regulation	48, 14
Federal Property Management Regulations System	41, 114
Fish and Wildlife Service, United States	50, I, IV
Geological Survey	30, IV
Indian Affairs, Bureau of	25, I, V
Indian Affairs, Office of the Assistant Secretary	25, VI
Indian Arts and Crafts Board	25, II
Land Management, Bureau of	43, II
National Indian Gaming Commission	25, III
National Park Service	36, I
Natural Resource Revenue, Office of	30, XII
Ocean Energy Management, Bureau of	30, V
Reclamation, Bureau of	43, I
Safety and Enforcement Bureau, Bureau of	30, II
Secretary of the Interior, Office of	2, XIV; 43, Subtitle A
Surface Mining Reclamation and Enforcement, Office of	30, VII
Internal Revenue Service	26, I
International Boundary and Water Commission, United States and Mexico, United States Section	22, XI
International Development, United States Agency for	22, II
Federal Acquisition Regulation	48, 7
International Development Cooperation Agency, United States	22, XII
International Joint Commission, United States and Canada	22, IV
International Organizations Employees Loyalty Board	5, V
International Trade Administration	15, III; 19, III
International Trade Commission, United States	19, II
Interstate Commerce Commission	5, XL
Investment Security, Office of	31, VIII
James Madison Memorial Fellowship Foundation	45, XXIV
Japan–United States Friendship Commission	22, XVI
Joint Board for the Enrollment of Actuaries	20, VIII
Justice Department	2, XXVIII; 5, XXVIII; 28, I, XI; 40, IV
Alcohol, Tobacco, Firearms, and Explosives, Bureau of	27, II
Drug Enforcement Administration	21, II
Federal Acquisition Regulation	48, 28
Federal Claims Collection Standards	31, IX
Federal Prison Industries, Inc.	28, III
Foreign Claims Settlement Commission of the United States	45, V
Immigration Review, Executive Office for	8, V
Independent Counsel, Offices of	28, VI
Prisons, Bureau of	28, V
Property Management Regulations	41, 128
Labor Department	2, XXIX; 5, XLII
Employee Benefits Security Administration	29, XXV
Employees' Compensation Appeals Board	20, IV
Employment and Training Administration	20, V
Employment Standards Administration	20, VI
Federal Acquisition Regulation	48, 29
Federal Contract Compliance Programs, Office of	41, 60

Agency	CFR Title, Subtitle or Chapter
Federal Procurement Regulations System	41, 50
Labor-Management Standards, Office of	29, II, IV
Mine Safety and Health Administration	30, I
Occupational Safety and Health Administration	29, XVII
Public Contracts	41, 50
Secretary of Labor, Office of	29, Subtitle A
Veterans' Employment and Training Service, Office of the Assistant Secretary for	41, 61; 20, IX
Wage and Hour Division	29, V
Workers' Compensation Programs, Office of	20, I, VII
Labor-Management Standards, Office of	29, II, IV
Land Management, Bureau of	43, II
Legal Services Corporation	45, XVI
Library of Congress	36, VII
Copyright Royalty Board	37, III
U.S. Copyright Office	37, II
Local Television Loan Guarantee Board	7, XX
Management and Budget, Office of	5, III, LXXVII; 14, VI; 48, 99
Marine Mammal Commission	50, V
Maritime Administration	46, II
Merit Systems Protection Board	5, II, LXIV
Micronesian Status Negotiations, Office for	32, XXVII
Military Compensation and Retirement Modernization Commission	5, XCIX
Millennium Challenge Corporation	22, XIII
Mine Safety and Health Administration	30, I
Minority Business Development Agency	15, XIV
Miscellaneous Agencies	1, IV
Monetary Offices	31, I
Morris K. Udall Scholarship and Excellence in National Environmental Policy Foundation	36, XVI
Museum and Library Services, Institute of	2, XXXI
National Aeronautics and Space Administration	2, XVIII; 5, LIX; 14, V
Federal Acquisition Regulation	48, 18
National Agricultural Library	7, XLI
National Agricultural Statistics Service	7, XXXVI
National and Community Service, Corporation for	2, XXII; 45, XII, XXV
National Archives and Records Administration	2, XXVI; 5, LXVI; 36, XII
Information Security Oversight Office	32, XX
National Capital Planning Commission	1, IV, VI
National Commission for Employment Policy	1, IV
National Commission on Libraries and Information Science	45, XVII
National Council on Disability	5, C; 34, XII
National Counterintelligence Center	32, XVIII
National Credit Union Administration	5, LXXXVI; 12, VII
National Crime Prevention and Privacy Compact Council	28, IX
National Drug Control Policy, Office of	2, XXXVI; 21, III
National Endowment for the Arts	2, XXXII
National Endowment for the Humanities	2, XXXIII
National Foundation on the Arts and the Humanities	45, XI
National Geospatial-Intelligence Agency	32, I
National Highway Traffic Safety Administration	23, II, III; 47, VI; 49, V
National Imagery and Mapping Agency	32, I
National Indian Gaming Commission	25, III
National Institute of Food and Agriculture	7, XXXIV
National Institute of Standards and Technology	15, II; 37, IV
National Intelligence, Office of Director of	5, IV; 32, XVII
National Labor Relations Board	5, LXI; 29, I
National Marine Fisheries Service	50, II, IV
National Mediation Board	29, X
National Oceanic and Atmospheric Administration	15, IX; 50, II, III, IV, VI
National Park Service	36, I
National Railroad Adjustment Board	29, III
National Railroad Passenger Corporation (AMTRAK)	49, VII
National Science Foundation	2, XXV; 5, XLIII; 45, VI

Agency	CFR Title, Subtitle or Chapter
Federal Acquisition Regulation	48, 25
National Security Council	32, XXI
National Security Council and Office of Science and Technology Policy	47, II
National Telecommunications and Information Administration	15, XXIII; 47, III, IV, V
National Transportation Safety Board	49, VIII
Natural Resources Conservation Service	7, VI
Natural Resource Revenue, Office of	30, XII
Navajo and Hopi Indian Relocation, Office of	25, IV
Navy Department	32, VI
Federal Acquisition Regulation	48, 52
Neighborhood Reinvestment Corporation	24, XXV
Northeast Interstate Low-Level Radioactive Waste Commission	10, XVIII
Nuclear Regulatory Commission	2, XX; 5, XLVIII; 10, I
Federal Acquisition Regulation	48, 20
Occupational Safety and Health Administration	29, XVII
Occupational Safety and Health Review Commission	29, XX
Ocean Energy Management, Bureau of	30, V
Oklahoma City National Memorial Trust	36, XV
Operations Office	7, XXVIII
Overseas Private Investment Corporation	5, XXXIII; 22, VII
Patent and Trademark Office, United States	37, I
Payment From a Non-Federal Source for Travel Expenses	41, 304
Payment of Expenses Connected With the Death of Certain Employees	41, 303
Peace Corps	2, XXXVII; 22, III
Pennsylvania Avenue Development Corporation	36, IX
Pension Benefit Guaranty Corporation	29, XL
Personnel Management, Office of	5, I, XXXV; 5, IV; 45, VIII
Human Resources Management and Labor Relations Systems, Department of Homeland Security	5, XCVII
Federal Acquisition Regulation	48, 17
Federal Employees Group Life Insurance Federal Acquisition Regulation	48, 21
Federal Employees Health Benefits Acquisition Regulation	48, 16
Pipeline and Hazardous Materials Safety Administration	49, I
Postal Regulatory Commission	5, XLVI; 39, III
Postal Service, United States	5, LX; 39, I
Postsecondary Education, Office of	34, VI
President's Commission on White House Fellowships	1, IV
Presidential Documents	3
Presidio Trust	36, X
Prisons, Bureau of	28, V
Privacy and Civil Liberties Oversight Board	6, X
Procurement and Property Management, Office of	7, XXXII
Public Contracts, Department of Labor	41, 50
Public and Indian Housing, Office of Assistant Secretary for	24, IX
Public Health Service	42, I
Railroad Retirement Board	20, II
Reclamation, Bureau of	43, I
Refugee Resettlement, Office of	45, IV
Relocation Allowances	41, 302
Research and Innovative Technology Administration	49, XI
Rural Business-Cooperative Service	7, XVIII, XLII
Rural Development Administration	7, XLII
Rural Housing Service	7, XVIII, XXXV
Rural Telephone Bank	7, XVI
Rural Utilities Service	7, XVII, XVIII, XLII
Safety and Environmental Enforcement, Bureau of	30, II
Saint Lawrence Seaway Development Corporation	33, IV
Science and Technology Policy, Office of	32, XXIV
Science and Technology Policy, Office of, and National Security Council	47, II
Secret Service	31, IV

Agency	CFR Title, Subtitle or Chapter
Securities and Exchange Commission	5, XXXIV; 17, II
Selective Service System	32, XVI
Small Business Administration	2, XXVII; 13, I
Smithsonian Institution	36, V
Social Security Administration	2, XXIII; 20, III; 48, 23
Soldiers' and Airmen's Home, United States	5, XI
Special Counsel, Office of	5, VIII
Special Education and Rehabilitative Services, Office of	34, III
State Department	2, VI; 22, I; 28, XI
Federal Acquisition Regulation	48, 6
Surface Mining Reclamation and Enforcement, Office of	30, VII
Surface Transportation Board	49, X
Susquehanna River Basin Commission	18, VIII
Tennessee Valley Authority	5, LXIX; 18, XIII
Thrift Supervision Office, Department of the Treasury	12, V
Trade Representative, United States, Office of	15, XX
Transportation, Department of	2, XII; 5, L
Commercial Space Transportation	14, III
Emergency Management and Assistance	44, IV
Federal Acquisition Regulation	48, 12
Federal Aviation Administration	14, I
Federal Highway Administration	23, I, II
Federal Motor Carrier Safety Administration	49, III
Federal Railroad Administration	49, II
Federal Transit Administration	49, VI
Maritime Administration	46, II
National Highway Traffic Safety Administration	23, II, III; 47, IV; 49, V
Pipeline and Hazardous Materials Safety Administration	49, I
Saint Lawrence Seaway Development Corporation	33, IV
Secretary of Transportation, Office of	14, II; 49, Subtitle A
Transportation Statistics Bureau	49, XI
Transportation, Office of	7, XXXIII
Transportation Security Administration	49, XII
Transportation Statistics Bureau	49, XI
Travel Allowances, Temporary Duty (TDY)	41, 301
Treasury Department	2, X;5, XXI; 12, XV; 17, IV; 31, IX
Alcohol and Tobacco Tax and Trade Bureau	27, I
Community Development Financial Institutions Fund	12, XVIII
Comptroller of the Currency	12, I
Customs and Border Protection	19, I
Engraving and Printing, Bureau of	31, VI
Federal Acquisition Regulation	48, 10
Federal Claims Collection Standards	31, IX
Federal Law Enforcement Training Center	31, VII
Financial Crimes Enforcement Network	31, X
Fiscal Service	31, II
Foreign Assets Control, Office of	31, V
Internal Revenue Service	26, I
Investment Security, Office of	31, VIII
Monetary Offices	31, I
Secret Service	31, IV
Secretary of the Treasury, Office of	31, Subtitle A
Thrift Supervision, Office of	12, V
Truman, Harry S. Scholarship Foundation	45, XVIII
United States and Canada, International Joint Commission	22, IV
United States and Mexico, International Boundary and Water Commission, United States Section	22, XI
U.S. Copyright Office	37, II
Utah Reclamation Mitigation and Conservation Commission	43, III
Veterans Affairs Department	2, VIII; 38, I
Federal Acquisition Regulation	48, 8
Veterans' Employment and Training Service, Office of the Assistant Secretary for	41, 61; 20, IX
Vice President of the United States, Office of	32, XXVIII
Wage and Hour Division	29, V
Water Resources Council	18, VI

Agency	CFR Title, Subtitle or Chapter
Workers' Compensation Programs, Office of	20, I, VII
World Agricultural Outlook Board	7, XXXVIII

List of CFR Sections Affected

All changes in this volume of the Code of Federal Regulations (CFR) that were made by documents published in the FEDERAL REGISTER since January 1, 2012 are enumerated in the following list. Entries indicate the nature of the changes effected. Page numbers refer to FEDERAL REGISTER pages. The user should consult the entries for chapters, parts and subparts as well as sections for revisions.

For changes to this volume of the CFR prior to this listing, consult the annual edition of the monthly List of CFR Sections Affected (LSA). The LSA is available at *www.fdsys.gov*. For changes to this volume of the CFR prior to 2001, see the ''List of CFR Sections Affected, 1949–1963, 1964–1972, 1973–1985, and 1986–2000'' published in 11 separate volumes. The ''List of CFR Sections Affected 1986–2000'' is available at *www.fdsys.gov*.

2012

46 CFR

77 FR Page

Chapter I

70.05–1 (a) table correctly revised 18946
Regulation at 76 FR 77715 withdrawn 20727
Regulation at 77 FR 18946 withdrawn 22232
70.10-1 Amended 59778
70.35-5 (a) amended 59778
71.01-1—71.01-20 (Subpart 71.01) Heading revised 33874
71.01–1 Redesignated as 71.01–2; new 71.01–1 added 33874
71.01-2 Redesignated from 71.01-1 33874
71.15-5 (b) amended 59779
71.20–20 (b) revised 33874
71.25–20 Heading and (a)(2) table revised 33874
71.50-3 (g) amended 59779
71.65–5 (d)(6) revised 33875
76.01–1 Heading revised; (b) added 33875
76.01-2 (a) amended 59779
76.05–1 Revised 33875
76.10–5 (h) revised 33876
76.15–50 Added 33876
76.15–60 Added 33877
76.33-15 (e) amended 59779
77.01-3 (a) amended 59779
78.01-1 Heading revised; (b) added 33877
78.01-2 (a) amended 59779

46 CFR—Continued

77 FR Page

Chapter I—Continued

78.47-9 Revised 33877
78.47–11 Added 33877
78.47–17 Revised 33877

2013

46 CFR

78 FR Page

Chapter I

70.05-1 (a) table revised 53312
70.10-1 Amended 60149
70.35-5 (a) amended 60149
71.15-5 (b) amended 60150
71.65-15 (a)(2) amended 60150
76.01-2 (b), (c) and (d) revised 13250
(a) amended 60150
77.01-3 (a) amended 60150
78.01-2 (a) amended 60150

2014

46 CFR

79 FR Page

Chapter I

70 Authority citation revised 53631
70.05-1 Table amended; eff. 10-10-14 53631
(a) introductory text amended; (A) Table removed 58281
Corrected 68370
70.05-3 (e) amended 58281
71.25-20 (A)(1) Table amended 58281
71.50-1 Amended 58281
71.50-27 (b)(3) amended 58281

46 CFR—Continued

79 FR Page

Chapter I—Continued

71.50-35 (b) amended 58281
72.15-10 (f) amended 58281
72.20-5 Amended 58281
76.10-10 Heading amended 58281
76.15-20 (g) amended 58282
77.35-5 (d) amended 58282
78.05-1 Revised 58282
78.10-1 Amended 58282
78.36-20 (a) amended 58282
78.37-5 (h) amended 58282
78.47-37 (a) amended 58282
78.50-10 (c) amended 58282

2015

(No regulations)

2016

46 CFR

81 FR Page

Chapter I

70.01-1 Amended 48251
71.25-3 Added 48251
71.25-20 Amended; Heading, (a) introductory text and (1) revised; (a)(3) and (4) amended 48252
72.01-2 Added 48252
72.05-1 Revised 48252
76.01-2 (c) and (d) redesignated as (d) and (e); new (c) and (d)(2) added; new (d)(1) revised 48252
76.01-5 Revised 48252
76.05-1 Revised 48253
76.05-5 Revised 48253
76.05-10 (a) amended 48253
76.05-20 Revised 48253
76.10-5 (a) text and table amended 48254
76.10-10 Revised 48254
76.25-1 Revised 48255
76.25-5 Removed 48255
76.25-10 Removed 48255
76.25-15 Removed 48255
76.25-20 Removed 48255
76.25-25 Removed 48255
76.25-30 Removed 48255

46 CFR—Continued

81 FR Page

Chapter I—Continued

76.25-35 Removed 48255
76.27-1—76.27-90 (Subpart 76.27) Revised 48255
76.30-1—76.30-90 (Subpart 76.30) Heading revised 48258
76.30-1 Revised 48258
76.30-5 Amended 48258
76.30-10 Revised 48258
76.30-15 Amended; (a), (c) and (d) amended 48258
76.30-90 (a) introductory text, (1) and (2) amended 48259
76.33-1—76.33-90 (Subpart 76.33) Heading revised 48259
76.33-1 Revised 48259
76.33-5 Amended 48259
76.33-10 (a), (b) and (c) amended 48259
76.33-15 Amended; (e) amended 48259
76.33-20 Amended; (a), (b), (d), (e) and (h) amended; (c) revised 48259
76.33-90 (a) introductory text, (1) and (2) amended 48259
76.35-1 Amended; (a) amended 48259
76.35-5 (a) revised 48259
76.35-10 Amended; heading, (a) and (c) amended 48259
76.35-15 Amended; (b), (c), (e) and (f) amended 48259
76.50-1 Revised 48259
76.50-5 Removed 48259
76.50-10 Revised 48259
76.50-15 Removed 48261
76.50-20 Heading, (a) and (b) amended; (c) added 48261
76.50-80 Added 48261
78.47-13 Revised 48261

2017

[Regulations published from January 1, 2017, through October 1, 2017)

46 CFR

82 FR Page

Chapter I

71.65-15 (a)(2) revised 35091